AUG 27 2004

American Dietetic Association
Your link to nutrition and health.[sm]

Chicago, IL
www.eatright.org

Policy Initiatives and Advocacy
Washington, DC
FAX

256

Letter 1 of 7

Food Guide Pyramid Reassessment Team
USDA Center for Nutrition Policy and Promotion
3101 Park Center Drive
Room 1034
Alexandria, VA 22302

FR Doc. 04-15710

August 26, 2004

Dear Dr. Hentges and the Food Guide Pyramid Reassessment Team:

The greater than 67,000 members of American Dietetic Association commend your transparent approach to reviewing and revising the USDA Food Guidance System. ADA strongly supports making decisions based on sound science and is pleased to participate in the review of your proposed system.

The answers to each question proposed in the Federal Register is discussed in detail below. However, the ADA wishes to highlight the following points.

- The shape of the Pyramid should be maintained – it is not the shape but rather the content and accompanying education messages that require updating.
- The Food Guide Pyramid should not be a stand-alone education tool.
- Education strategies should be market tested with diverse audiences. The results of that research should be announced via the Federal Register and/or peer-reviewed publications, and public comments should be sought.
- The Food Guidance System should focus on health promoting strategies. People with special nutrition concerns should be encouraged to seek medical nutrition therapy from dietetics professionals.
- USDA should begin now to establish the process to systematically evaluate the existing and new evidence to support the Food Guide Pyramid. The goal is to have this analysis available when the next revision is needed. A conceptual framework and process to evaluate peer reviewed published research is essential for the pyramid to reflect current scientific understanding on this topic.

The Food Guide Pyramid Reassessment Team
USDA Center for Nutrition Policy and Promotion
3101 Park Center Drive Room #1034
Alexandria, VA 22302

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Trovato 1 of 1

Thursday, August 26, 2004

Dear Food Guide Pyramid Reassessment Team Member:

I just heard that you're re-doing the food pyramid. I hope you will take this opportunity to make the food pyramid reflect a healthy diet rather than the control that the meat and dairy industries have in Washington.

I would like to see:

Fresh Vegetables at the base of the pyramid, followed by fruits, grains and beans.

Meat and dairy, being detrimental to health, should be omitted, or put in as optional with a health warning like on cigarettes and alcohol. (I am assuming because of the position you are in that you are familiar with medical studies that show the detrimental health effects of meat and dairy and that I do not need to give you references to these studies. If you would like information however, please write to me and I'll forward them to you.)

You could have a calcium portion of the pyramid; just pack it with dark green veggies.

If the new pyramid is really going to be ambitious, you could have a healthy fats section, featuring nuts, seeds and avocados, and featuring High Omega 3 sources like Flax Seeds (#1 source, even beats fish) and canola oil.

For a protein section, you can feature Whole Grains, Nuts and Seeds and Legumes.

I hope you consider these options.

Best,

Jennifer Trovato

Jennifer Trovato

Fort Lauderdale, FL

postmarked 8/27/04

Oregon
Theodore R. Kulongoski., Governor

Department of Human Services
Health Services

Portland, OR
-Emergency

Fax
-TTYNonvoice

382

Goodrich 1of2

August 25, 2004

Food Guide Pyramid Reassessment Team
USDA Center for Nutrition Policy
3101 Park Center Drive, Room, 1034
Alexandria, VA 22302

RE: Comments in response to the July, 2004 Federal Register notice

To Whom It May Concern:

The Nutrition Policy and Standards committee from the Oregon WIC Program reviewed the proposal and here are our comments regarding the possibility of redesigning the Food Guide Pyramid:

- We recommend retaining the current or similar shape due to the high level of recognition. However, we need to ensure that people understand it and know how to use it
- We support a simplified symbol that would then be supplemented with specific messages and serving amounts for the individual. Enclosed is an example from the Dairy Council of California
- We recommend using real pictures of nutrient dense foods in each of the food group sections, including a variety of foods to address different ethnic groups.
- We encourage a national, creative advertising campaign to promote the Food Guidance System, perhaps partnering with the Food Industry for an effective message.

Sincerely,

Sara Goodrich

postmarked 8/26/04

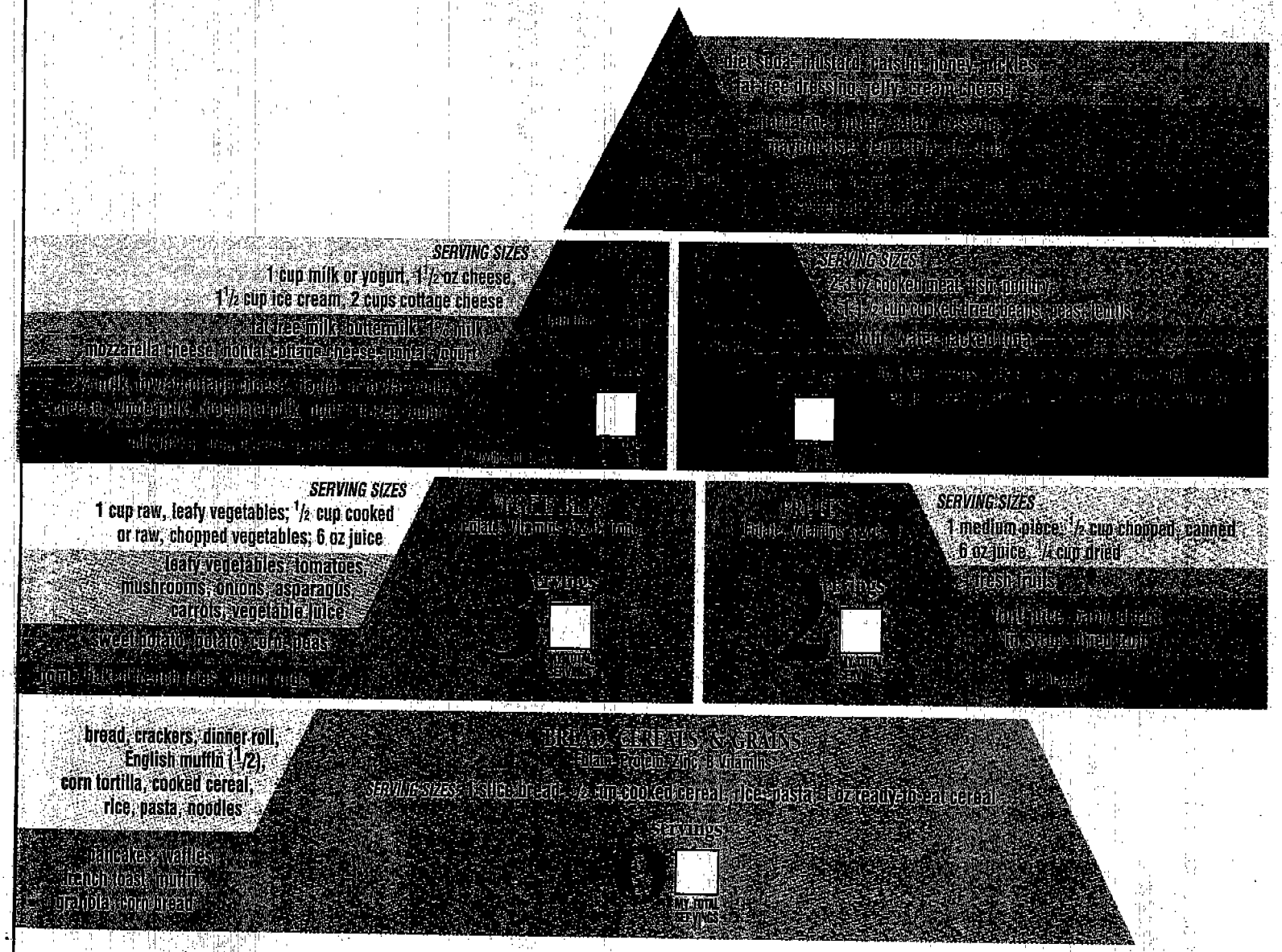
Sara Goodrich, M.S., R.D.
Nutrition Education Coordinator, Oregon WIC Program

If you need this in an alternate format, please call

"Assisting People to Become Independent, Healthy and Safe"
An Equal Opportunity Employer

eating for me and my baby?"

Goodrich 2 of 2



Options for Improvement

1) **Choose some additional foods** if you're not getting enough servings in a specific food group. Eat foods you are already eating more often or in larger amounts. Or add a new food to try for meals or snacks.

2) **Consider changes in the "extras" group**, which are often higher in fat or calories but don't supply the nutrients you and your baby need. Substitute foods from the five food groups for "extra" foods. For example, drink lowfat milk instead of a soft drink at snack time.

YOUR plan–write down a couple of things you'll try.
For example, "I will add a carton of yogurt as an afternoon snack."

_____

_____

Share your plan with your doctor or health care provider.

383

at

The Food Guide Pyramid Reassessment Team
USDA Center for Nutrition Policy and Promotion
3101 Park Center Drive Room #1034
Alexandria, VA 22302

Kashul 1 of 1

The current food pyramid appears to be an ad campaign for the dairy council and meat industries. It does not seem fair that their finances and marketing campaigns should determine our nutritional guidance as a country. Do you really have the scientific nutritional data to back-up their majority representation on our current pyramid?

Please start emphasizing healthier plant-based sources of protein such as beans and nuts in your "MEAT" group. I request that you change the title of the group from "MEAT" to "PROTEIN".
I also urge you to change the title of the "MILK" group to the "CALCIUM" group and feature leafy green vegetables, which are the healthiest source of the mineral.

Thank you for the opportunity to provide feedback. I appreciate it.

Sincerely,
Laura Kashul
Park Ridge, Illinois
Concerned citizen for our nation's health and well-being

postmarked 8/26/04

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The Food Guide Pyramid Reassessment Team
USDA Center for Nutrition Policy and Promotion
3101 Park Center Drive Room #1034
Alexandria, VA 22302

Halfhill 1 of 1

Sirs:

This is a plea for you to emphasize the benefits of plant based proteins such as beans and nuts in your "meat" group division of the Food Pyramid. The evidence is overwhelmingly clear that plant based protein sources are superior to animal based sources and are without the risks of degererative diseases associated with meat based sources.

Another good idea would be to change the "milk" group to the "Calcium" group, because leafy green vegetables are the acknowledged healthiest source of that mineral. Where do you think that cows and other large boned animals get their calcium??

We all know that the beef industry and the dairy industry would rather the public not recognize these facts, and will flood you with claims of value for their products for humans. But you know that these claims have been refuted long ago.

Please consider this request for the health of your grandchildren and the future of our planet. Thank you.

Sincerely:

Ron Halfhill

Sunnyvale, CA

postmarked 8/25/04

CHEF NEIL Neil Geller, , San Francisco, CA

385 Geller 1 of 1

PROPOSED IDEAS FOR THE CNPP REVISION OF THE FOOD PYRAMID

I am a personal chef whom is in direct contact with people who are influenanced by the latest diet trends. I am not a nutritionist, but I am someone who is interested in healthy eating and diet. I am extremely interested in the public gaining more knowledge of health. This has become an epidemic that I would love to see change.

The public needs to have a "general" food guide and the pyramid has great brand identity. I believe the pictures on the food pyramid need to be clearer on what it is we should be eating. Detailed information should be put on a website that has information for persons in need of different diets. The tricky part is getting people to the website, and for this, I believe, you need to hire a branding professional.

Stress the importance of balance, portion control and variety. You can't just eat bean and rice burritos all the time. A varied diet is key. Emphasize on exercise. This should be somewhere in the pyramid.

Big food conglomerates spend lots of money telling us that their food is healthy. That is very confusing to the public. Everyone is trying to cash in on the publics ignorance. If you want real change then drastic measures need to be taken. And that means limiting the intake of processed and fast foods. A variety of whole grains need to be defined. People will take the items in the food pyramid and adapt it to the food they want to eat. French fries don't count as a vegetables and Wonder bread doesn't count as a whole grain. The public needs to change they're eating habits.

Start with the youth. I would love to see a 21st. century version of Schoolhouse Rock that would get kids involved and interested in the importance of diet (a interactive DVD or an educational website that gives away prizes donated by sports teams or exercise companies?).

Slogan: You truly are what you eat!

postmarked 8/25/04

386 Frenkel 1 of 1

Food Guide Pyramid Reassessment Team,

I am not a professional nutritionist, but I am the leader of a local vegetarian group, and, as a result, have access to many nutritional reports e-mailed by professionals. Every single one, without exception, urges people to minimize their meat and dairy consumption and increase their fruit, vegetable, legume, nut and seed consumption. The health documentation for these advisories are lengthy and from experts who have done studies or reviewed studies done by others. The reason for the fruit, vegetable, bean, grain, nut and seed recommendations is that it is better for our health. Period. Numerous studies show how the major contributor to our ill health in this country, as well as other western-type nations, is the consumption of meat and dairy. Osteoporosis, heart disease, diabetes and some cancers have been directly related to meat and dairy eating.

I am aware that you have strong connections to the meat and dairy industries, but you must put the health of Americans before the profit of those industries. It is what you were created to do. Please follow through on your mandate and do the right thing for us. Please do not recommend meats, but instead urge people to consume legumes, nuts and seeds. Instead of breads, suggest that people eat whole grains and cereals, omit milk and cheese from your recommendations. Offer the high nutrient values of greens and other vegetables.

As a side note, you must certainly be aware of the terrible impact on our environment of raising cattle. To oversimplify, less cattle means less damage to the environment: less waste, less water consumption, less fuel used to produce that beef.

It is good that you are reconsidering the Food Pyramid. It is a chart that is used by many people as a trusted guide to healthy eating. These folks have been misled by previous Pyramids in the past and now need an honest Food Pyramid that reflects our current understanding of the needs for good health.

Thank you for your consideration of my letter……..Leonard Frenkel, Bethlehem, PA, 610-709-8984

postmarked 8/27/04

GoVeg.com

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Kartzinel
1 of 2

Laguna Niguel, CA
August 25, 2004
RE: FOOD GUIDE PYRAMID REASSESSMENT COMMENTS

Food Guide Pyramid Reassessment Team
USDA Center for Nutrition Policy and Promotion
3101 Park Center Drive, Room 1034
Alexandria, Virginia 22302

Reassessment Team Members:
I grew up with the 4 food groups in equal divisions of a square: simple. Now there is the pyramid: more groups, but still visually self-explanatory. However, today we know that nutrition is just as important as many other things that contribute to a healthy body: "physical fitness, prevention, healthy choices" as your website states, as well as mental, emotional and spiritual well-being. Although the published research as to how much of each type of food is "healthy" seems to change with the wind (e.g., the Atkins diet), the labeling of food has not changed in many years other than the addition of the type of fat in g and % contained in the food. The whole idea of guiding the general public based on serving size is ridiculous because only strict calorie counters actually consult USDA's copious literature on this topic and measure what they eat. Most people just eat, glancing at the label to see how "fattening" it is before buying it anyway and regulating their intake of the item in some arbitrary fashion which may or may not be related to how they regulate any other items in their diet - for that meal, or that day, or that week.

I propose dropping the idea of the serving size as the guiding principle behind nutrition - in promotional materials - and replacing it with something that corresponds to how food is labeled (see attached - and please excuse the horrible drawing. I am not an artist by any stretch of the imagination...). Behind the scenes there should still be tables of information for people who want to know more, but we should acknowledge that most everyone is confused by this concept and doesn't take the time to decipher it all. I think a "whole body" approach is more appealing, contemporary, and factually correct in terms of health. Without giving all the details up front, people may be curious enough to delve deeper to get all the current nutritional recommendations. If they don't, then the guidance you provide will still be sound in a general way which may lead to an increased overall awareness of how to maintain a healthy lifestyle.

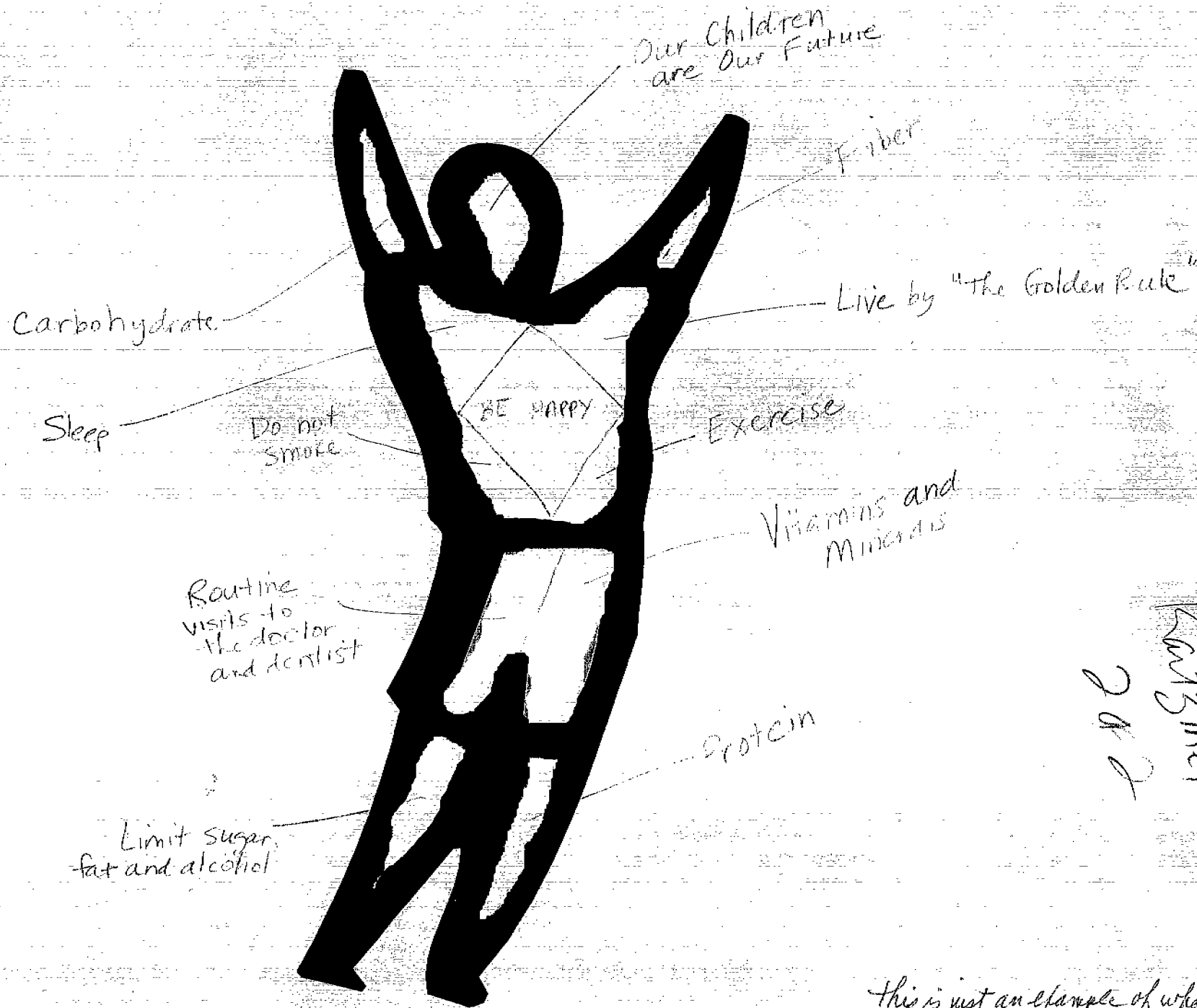
I feel very strongly that there is too much laziness, greed and lack of moral and ethical integrity in this county - and it is increasing. If the USDA can somehow incorporate an "eat right to feel great, but being a nice person is just as important" attitude into the nutritional guidelines, then America would be a better, healthier place.

Thank you for your time and consideration,

Heather J. Kartzinel

postmarked Aug 26, '04

Heather J. Kartzinel
Enclosure (1)



Katzinel 2 of 2

this is just an example of what I mean - it is difficult to convey in words or in a drawing...

388

Breitman
1 of 1

August 26, 2004

The Food Guide Pyramid Reassessment Team
USDA Center for Nutrition Policy and Promotion
3101 Park Center Drive Room #1034
Alexandria, VA 22302

Dear Reassessment Team:

In the new guidelines, please encourage more foods from plant sources and fewer from animal sources. Despite the huge lobbying power of the dairy, beef and egg industries, scientific studies still show that the healthiest diet is high in fiber which is absent in animal based products and low in saturated fats which are high in animal based products.

In contrast, plant based foods are naturally high in fiber, low in saturated fats.

Heart disease, obesity, diabetes, many cancers, and a host of gastro-intestinal disorders can all be greatly reduced with a diet focused more on plant foods and less on animal foods.

Thank you for giving more emphasis to whole grains, legumes, fruits and vegetables in the new guidelines. Encouraging these foods and discouraging animal based foods would be consistent with the message from the American Heart Association, the American Cancer Society, and a growing number of health organizations.

Thank you for your consideration.

Sincerely,

Patti Breitman

postmarked 8/26/04

Patti Breitman

Fairfax, CA

A balance of nuts and legumes can replace the animal portion of the diet for those inclined to restrict their diet to vegetarian fare. Restricting pork, shellfish, and other prohibited "unclean" elements can accommodate Kosher diets.

The triangle interfaces the environment of economy, politics and lifestyle, however present politics will not allow the governmental consideration of the spiritual moderation indicated by the Father, Son and Holy Spirit, in spite of the abundance of the comfort they can promote given a chance. I would expect the USDA to remove these elements without considering the resulting ramifications.

Submitted by:

Gary Schilling

28 Budlong Street

Hillsdale, MI 49242-1841

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Additional information is included for use of the FDA in evaluating the role that excess sodium may play in escalating the pain of coping and cost of geriatric health care.

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The Nutrition Star

The following information is submitted for consideration in reassessing the food pyramid. It seems to me we have been in the dark ages of the pyramid long enough and should be looking to the stars of the future. Good health is more than nutrition and nutrition is more than just food and serving size, but those are fundamental factors.

The Nutrition Star classifies the food first into the major classification of animal and vegetable, with only one point of the star (four servings) split into two servings of non-sacrificial (animal products) and two servings of sacrificial animal (meat, poultry and fish). This gives sufficient protein, cholesterol, and heavy fats.

The center (from a vertical point of view) two points are dedicated to the vegetable category with the left being legumes, immature grains, leafy and fleshy vegetables, while the right point gives consideration to the nuts, berries and fruit. There are four servings represented by each of these two points and provide vitamins, minerals, and fiber with additional amino acids and complex carbohydrates with energy from sugars and some polyunsaturated fats.

The two foundational points include the roots and tubers on the left and whole grains on the right. These food groups provide primarily starch and fiber, with some unsaturated fats.

The star is contained in a circle with the spaces dedicated to Exercise, Fresh Air, Rest, Water and Relationships. The circle is circumscribed by a triangle of shelter, hygiene and sanitation. *(continued on the back page)*

Schilling 10-16

postmarked 8/26/04

Food Group Classification
for Food Packaging Labels

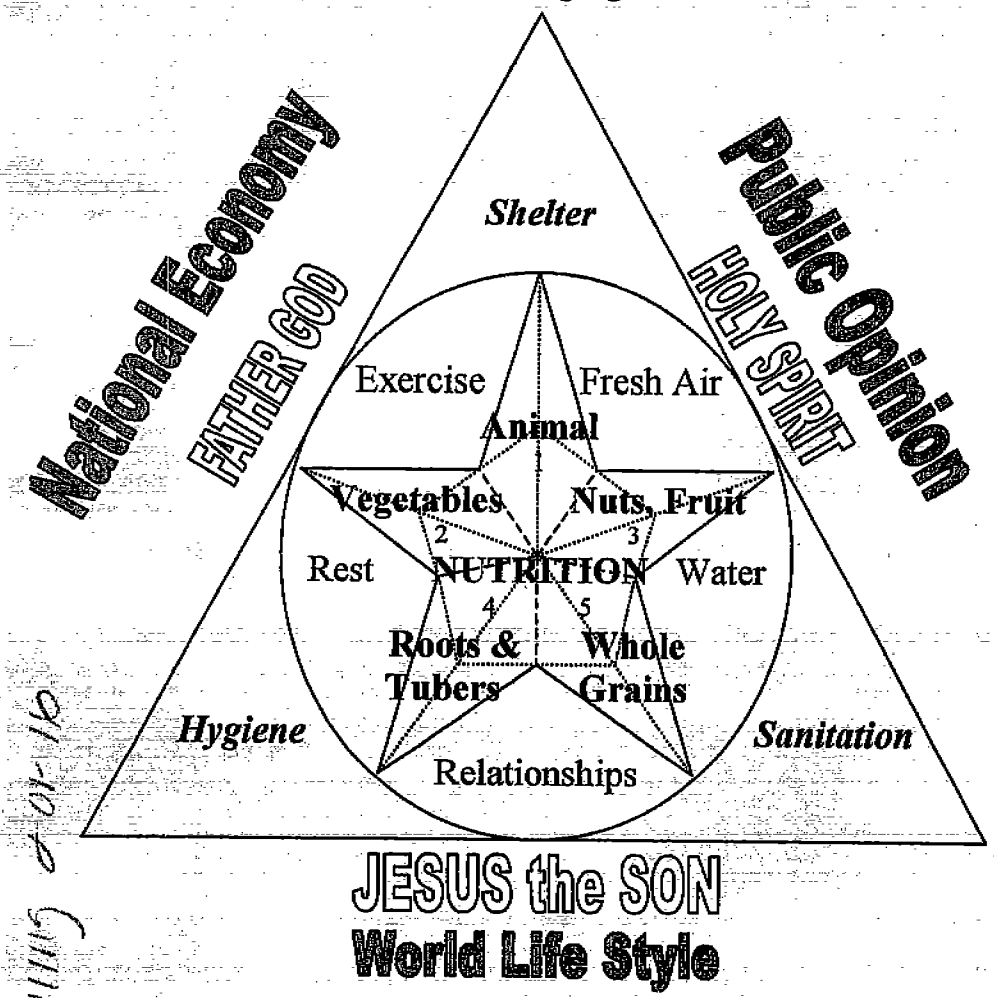

Diagram represents Protection, Condition and Nutrition needs

1 = Animal (Meat, Milk, Eggs)	4 (100 Cal) Servings
2 = Legumes & Vegetables	4 (100 Cal) Servings
3 = Fruit, Berries & Nuts	4 (100 Cal) Servings
4 = Root Vegetables & Tubers	4 (100 Cal) Servings
5 = Whole Grain Cereals	4 (100 Cal) Servings

Provides 2000 calories per day (limit sodium intake at 2000mg/day)

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The Triangle (Protection)

Shelter – Keeps you warm and dry
Sanitation – Keeps your surroundings clean
Hygiene – Keeps you clean

The Circle (Condition)

Exercise – 20 to 30 minutes, 4 - 3 times a week
Fresh Air – Pollution free/Sunshine each day
Rest – Six to eight hours per night (or day)
Water – 16 to 32 Ounces per Day (if beverage double quantity)
Relationships – Committed & Honest (Home, Business, Work) *not just opportunistic or manipulative associations*

The Star (Nutrition)

1 **Provides Protein, Cholesterol & Saturated Fat**
Sacrificial (requires killing) - Meat/Poultry/Sea Food
Non-Sacrificial (from live host) - Milk & Egg Products

2 **Provides Vitamins, Minerals, Fiber & some oils**
Mature Legumes - Dry Beans, Dry Peas, Lentils, etc.
Fleshy Vegetables - Immature Grain, Legumes, Tomatoes, Squash, Celery, Broccoli, Cauliflower, Kohlrabi, etc.
Leafy Vegetables – Lettuce, Cabbage, Spinach, etc.

3 **Provides Vitamins, Minerals, Sugars, some oils**
Nuts – Walnuts, Pecans, Almonds, Peanuts, etc.
Fruit – Oranges, Grapefruit, Lemons, Apples, Pears, Bananas, Pineapples, Avocados, Papayas, Olives, Melons, etc.
Berries – Strawberries, Raspberries, Blueberries, etc.

4 **Provides primarily Starch and Fiber** *Roots & Tubers* – Carrots, Beets, Turnips, Potatoes, Sweet Potatoes, Taro, etc.

5 **Provides Starch, Fiber and Polyunsaturated Oils** *Cereals* – Wheat, Oats, Corn, Rice, Bread, Tortillas, Pasta, and other cereal products.

The Father, the Son and the Holy Spirit SURROUND You, your Health, Nutrition and Environment, buffering you from the World.

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One Hospital Care Billing Situation
(No idea what the surgeons and anesthesiologist may have billed)

Hospital Billing: following the quad cardiac arterial bypass graft (without complications), four plus days: admitted 6 AM 10 May and discharged about noon on 14 May:

Hospital Charges $50,596.40 Billed 06/11/03, Past due 17 July 02 and Final Notice on 27 July 02. The mattered was eventually compromised after several calls from CIGNA without any additional remittance to the best of my knowledge.

CIGNA Payment	$ 2,300.00
CIGNA Adjustment	$17,698.00
CIGNA Payment	$ 2,350.00
CIGNA Adjustment	$17,648.00
Balance Due	**$10,600.40 (with later threats to turn the bill over for collection)**

There was no breakdown of services rendered as a basis for the above billing, but it is presumed that there was billing from the Cardiac Recovery Intensive Care Unit (CRICU) and also for the patient-care unit. However the Hospital (Virginia Hospital Center – Arlington) had a contract with CIGNA to perform specific services for specified amounts and was prohibited to bill the patient for any amount in excess of the contracted amount. Note that the actual amount billed ($50,596.40) was over ten times the contract paid amount ($4650.00). Although the contract apparently recognized or anticipated billing up to an amount of almost $40,000.

If the Hospital has contracted to perform the services for less than one-tenth of the billed amount, it seems hardly ethical to consider an entry into the journal or ledger so inflated. More Corporate practice of cooking the books I suspect. *There should be a Congressional Investigation of such practices.* Talk about scalping the Senior Citizen, **I would say that the above billing practice could cause a heart attack (definitely a bankruptcy) and should be considered a felony!**

Schilling 2 of 10

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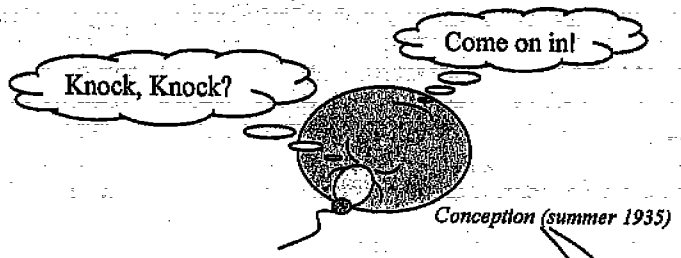


Conception (summer 1935)

Gestation

Parturition (11 May 1936)

The Cemetery Path *by Gary*

(An Assault on Salt, My Case Study)

Childhood Disease

Life Style

Avocation

Personal Choices

Diet

Profession

Aging

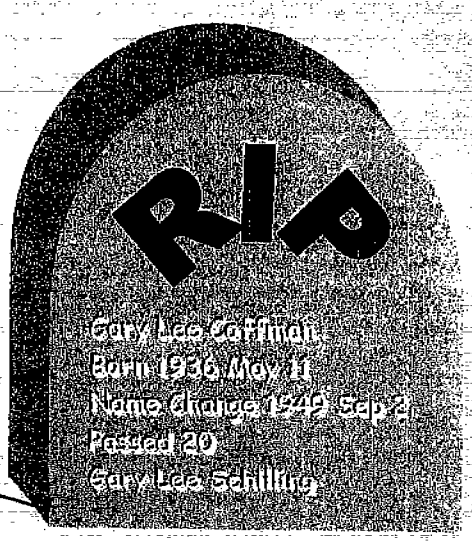
Relationships

Diet

Retirement

Life Style

Eventual Demise



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Dedicated to those who would like to extend the length of their path in life, reduce the uneven places where disease is likely to cause uneasy times and shed some light on some of the tripping hazards.

And to the medical professionals who have dedicated a career to repairing the devastation we patients have in many cases unknowingly self inflicted upon our bodies through ingesting inappropriate amounts of various food stuff, chemicals and minerals added to FAST and packaged convenience products.

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LIFESTYLE CONSIDERATIONS

MORE THAN JUST NUTRITION

(Also for Travel, Camping and Backpacking Plans)

Star (nutrition)

Circle (health) **Triangle** (comfort)

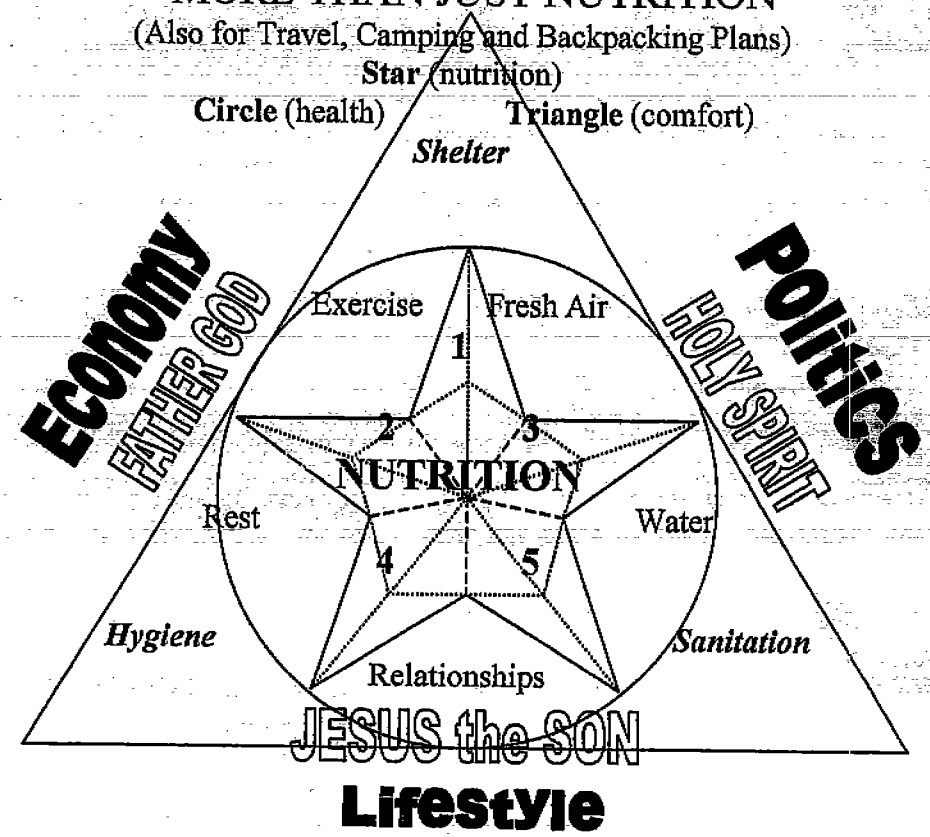

Diagram represents Protection, Condition and Nutrition needs

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3 = Fruit, Berries & Nuts	4 (100 Cal) Servings
4 = Root Vegetables & Tubers	4 (100 Cal) Servings
5 = Whole Grain Cereals	4 (100 Cal) Servings

(Animal compliment may be replaced with legumes and nuts)

Exercise: at least 20 to 30 minutes five to three time a week
Fresh Air and Sunlight: 1 to 3 hours per day average
Rest: 6 to 8 hours per 24-hour period
Water: ¼ to 1 fluid ounce per pound of body weight per day
Relationships: Honest, Sharing, Caring; not exploitation, manipulation

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Schilling 7/17/16

stepping, cycling, etc.) or outside by brisk walking, jogging, skating, cycling, canoeing, swimming, etc. Gossiping may increase the pulse rate (TV spectators even get adrenaline rushes), but provides no verified benefit over other sedate lifestyles.

Sufficient fluid to flush the system is important, but each author seems to have a personal opinion. Some specifically include all beverages; while others opt for water only (watch the source for hidden sodium). The water volume seems to range from as little as a pint daily (in addition to other beverages), to as much as an ounce (of distilled water) for every pound of body weight each day. Fluid intake definitely affected my blood pressure in a complex way; as I increased the water intake it lowered my diastolic pressure, but increased the systolic pressure; urine flow is somewhat improved (less urgency and less hesitancy, better stream, less color, but definitely more frequent). Long term affects unknown.

Regular exercise, proper mineral balance from a variety of food groups with sufficient fiber in the proper calorie range for your desired weight will result in improved health. Your body needs regular rest to recover on a daily basis and sufficient fluids to flush the waste efficiently. Again, moderation is the ultimate goal; balance is the key! See the "Nutrition Star" in the "Circle of Health" surrounded by the "Trinity of Comfort".

Spiritual health is also important. Honest relationships as opposed to opportunistic or manipulative associations will remove many forms of stress including worry and guilt, both of which can be killers. Guilt can be a life sentence even with an acquittal! Fellowship with like-minded people on a regular basis, praying for each other, rather than preying on one another will ease tension, stimulate emotion and stabilize self esteem for improved life functions. "Love is a Many Splendored Thing!"

References:

The Salt Solution, Herb Boynton, Mark F McCarthy and Richard D. Moore, MD, Ph.D., Avery Press, 2001

The High Blood Pressure Solution, Richard D. Moore, MD, Ph.D., Healing Press, 1993, 2001

The K-Factor, Richard D. Moore MD Ph.D., & George Webb, Ph.D., Macmillan Publishing Co. 1986

The Salt—Free Diet Book, Graham MacGregor, MD, Arco Publishing 1984

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The Cemetery Path

(An Assault on Salt, My Case Study)

by Gary

Born: Gary Lee Coffman 1936 May 11

Name Change to Gary Lee Schilling 1949 Sep 2

Still living 2004

Married 1970 Oct 31 to B. Ann Schilling

Mrs. William F. (Fidler) Shilling [widow with four children]:

Minor Benefactors: Daughter Jill 9, Son Rob 11

Daughter Gwen 12 & Daughter Ann Marie 13

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Preface

Mortality begins at conception, which always occurs, except in the case of Adam, Eve & Jesus, as a result of a male sperm and female ovum having united, usually following intercourse. There are neither single-parent children nor illegitimate children born, but the legitimacy and identification of the paternal parent may sometimes be in question. Circumstances include

- Natural expectation (matrimony)
- An unplanned consequence (promiscuity/cohabitation)
- Timed occurrence (birth control)
- Manipulated event (infertility treatment)

Mortality ends with the demise, resulting from

- Manipulated event (abortion)
- Unnatural intervention (homicide)
- Lifestyle circumstance (accident, disease)
- Natural conclusion (old age)

The path to the cemetery may be extremely short in the case of abortion, mid-length by risk management or long and fruitful with a truly healthy lifestyle. A coworker cites the four basic food groups as sugar, salt, fat and beer. All these are flagstones on the pathway to the cemetery. These are not the only flagstones of consequence, however, obesity, smoking and refined flour are certainly worthy of mention as are promiscuity, prostitution, homosexuality, drug abuse, and other deliberately risky types of behavior, like sky diving, auto racing, test pilots, police and rescue, etc. Such lifestyle provides a modicum of immediate pleasure or even a brief rush of adrenaline, but have long term consequence such as unwanted pregnancy, AIDS, broken bones, broken homes, guilt and in some cases even revenge on/by others.

Politically there is a distinct problem of promoting choice as a civil right, while ignoring any norm of civil responsibility. Intercourse may be a civil rite "Choice", but having made the choice to have intercourse, resultant conception is a moral responsibility. The key is always balance, moderation and/or self-control. Until we return to some moral standard of responsibility, we will continue on the road to anarchy. If it feels good, do it. If you feel motivated, the consequence to others does not matter. If it has a profit potential,

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generally priced somewhat above the white varieties, but still is a better health buy.

Cholesterol can be restricted to some extent by buying low fat cheeses, milk, yogurt and medium sized eggs. Hydrogenated oils are difficult to avoid, but some natural peanut butter and the softer margarine have a lower degree of hydrogenation. Natural peanut butter avoids the salt, sugar and hydrogenated oils.

Many sauces and dressings have 200-mg or more per tablespoon serving, in which case I try limiting the serving to a teaspoon (1/3-Tablespoon). I find the salt-free Spike to add palatability to salads, meat loaf, no-salt pasta sauces (or made from no salt tomato sauce/paste with salt-free spike). "Spice Island Popcorn Cheese" has only 55-mg per ½ teaspoon and adds pazazz to popcorn. I go easy on the potassium chloride salt substitutes, but have some on the table (microwave popcorn has a horrendous amount of salt) but popcorn by the pound popped in a skillet or microwave device is essentially sodium-free). Vegit and Mrs. Dash's seasoning are other possibilities to add palatability. It only takes a couple of months or slightly more to wean off the salt without withdrawal symptoms and/or consequences.

There is a low sodium variety of bullion, sodium free baking powder, and baking soda which is calcium bicarbonate. They are a bit difficult to find, but are available even at some grocery stores. "30% less sodium" soups (still 400 or so mg sodium for 70 or so calories) [condensed cream of celery soup] can be found fairly easy, but the low sodium (65 mg sodium for 200 calories) [ready to eat cream of mushroom] variety is much more difficult to find. No salt added canned vegetables are not too difficult to find, but you must look for them and they are pretty bland! Frozen vegetables are generally not adulterated with salt. I have not found any canned beans (except string beans) without salt, but dry beans are without salt unless a flavor packet is included and some bean soup flavor packets have less than half a mg per calorie (compared to others with three mg per calorie) prepared.

Wrap-up Conclusions

Also important is regular exercise that raises the pulse by at least ten percent and holds it there for at least twenty minutes, for at least three times a week (four times a week for thirty minutes is far better). This may be accomplished on exercise equipment (rowing,

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and bland, but is very low in sodium (around 10-mg sodium per slice vs. nearly 200-mg for regular breads).

Low Sodium Shopping

Nearly every package of foodstuff has a label, which indicates among other things the sodium content in mg (milligrams) per serving. There is no standard serving size so the size serving must be checked. Some relatively small packages are still multiple serving and some relatively large cans may be only a single serving. I generally check to see the ratio of mg sodium to calories and if below one-mg sodium per calorie, it is fair game, but if more than 1.5-mg sodium per calorie it is to be restricted. Any product with more than two-mg sodium per calorie is to be severely restricted or forbidden.

Rolled oats, shredded wheat and Kashi are cereals with no salt added in many cases. Fresh fruit and vegetables are in general not adulterated with salt, but some packages of frozen vegetables or dry legumes (beans, peas and lentils) have a flavor pouch or packet laced with salt (and priced about one dollar more); yes, you can buy poor health.

Most stores have some canned vegetables with no salt added. I was perplexed not finding unsalted tomato juice until I noticed most were made from concentrates and most tomato paste and some tomato sauces were unsalted. Tomato sauce can be reconstituted to juice by adding one or slightly more cans of water per can of sauce. Tomato paste requires the addition of about four cans of water per can of paste and mixes somewhat better if the water is folded in one can at a time.

Many stores have a dietetic section or aisle, but not all the low sodium fare will be found there. In addition to the sodium content, the sugar must be watched if preparation is for a diabetic (and high sugar content is generally to be restricted especially as age increases). Canned and packaged meats, cheeses (low salt Swiss is frequently available, no salt Swiss occasionally) and any helper pouch or packets are generally laced with salt, but need not be.

Dry rice and pasta are generally not sodium enriched, but brown or whole grain is a better health choice than enriched white. The vegetable (tomato, spinach, etc.) additive to pasta does not in general replace the nutrition value of bran and germ removed, but does add some color and increases the price. Whole grain pasta is

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jump on the bandwagon. If it will gain you influence; by all means take advantage of anyone and everyone. And so every man did what was right in his own eyes (Judges 21:25). Responsibility is ignored while choosing thrill, profit, influence, authority and power. Terrorism is the hostile exercise of presumed civil rites. All criminals are terrorists and **All crimes invoke terror.** Where there is no vision, the people perish: but he that keepeth the law, happy is he. (Proverbs 29:18). PRIDE is just I surrounded by Power, Ritual, Deceit and Envy.

Liberty for all will not be realized until each accepts responsibility for the actions he initiates. Without civil responsibility norms, anyone has the civil rite to do *whatever (s)he considers appropriate*, and if society takes offense it has the option (or obligation) to investigate, prosecute, and punish the presumed offender. **Lack of any moral norm results in full-blown anarchy and may encourage any form of holocaust!**

Health care is a personal responsibility, but in many cases the medical community concentrates on disease management, losing sight of disease prevention. Obesity and sedate lifestyle coupled with excessive amounts of empty calories (fat, sugar and starches) tends to shorten the path to the cemetery. Such a lifestyle regimen is self-reinforcing; leading to more health complications as time passes.

Cholesterol and hydrogenated (Trans-fatty) oils contained in convenience and fast foods combined with sumptuous amounts of salt and refined flour may keep them coming back for more, but also adds to health stress. My doctor recommended trying niacin (1000 mg to 2000 mg per day) to improve the good cholesterol and reduce the overall cholesterol. At 1000 mg per day my total cholesterol was reduced from 225 to 175 while the good cholesterol improved from 25 to 35 (improving the ratio of total to good from 9/1 to 5/1). Zocor and Niaspan has further improved cholesterol to 130/50 or better than 3/1.

Presumption

The primary consideration of this composition is a lifestyle consequence of diet, specifically electrolyte imbalance. Many of the nineteenth and twentieth century diseases are aggravated by diet. Scurvy was caused by a deficiency of vitamin C (ascorbic acid) found in lemons and limes (British sailors became known as limeys, as limes were carried on the ships to prevent Scurvy). Rickets was

caused by lack of vitamin D (sunlight) and was essentially eliminated by adding vitamin D to milk. Goiter was the result of iodine deficiency, essentially eliminated by adding potassium iodide to salt.

However heart disease and cancer are two of the leading causes of death as the twenty-first century (and third millennium) is beginning and hypertension and diabetes are two of the most prominent health care problem. In addition asthma, dementia, arterial sclerosis and obesity are rampant. **There is ample undisputed evidence and test results to indicate all of these maladies and the associated exorbitant treatment cost are aggravated by, if not the direct cause of potassium/sodium imbalance or excessive sodium with possible chloride issues.**

Man was created to live on fruits, nuts, vegetables and seed, (Genesis 1:30) all having a Potassium (K) to Sodium (Na) ratio (K/Na mineral balance) greater than ten. As meat, fish and fowl was assimilated into the diet (Genesis 9:3), the K/Na ratio was still well above three. As salt (NaCl) became a commercial commodity it was used liberally as a preservative (and to enhance flavor) especially for meat, fish and fowl, giving sodium the upper hand in the mineral department. Note that the term salary is derived from salt, hence the phrase, "He is (or is not) worth his salt", however, "The wages of sin is death" (Romans 6:23).

As industrialization made available pottery, then glass and eventually metal cans, the boiling process for sterilization to extend shelf life robbed potassium and salt intervened to restore palatability completely overturning the K/Na ratio from tens to tenths. Drying and freezing, the earliest and a more recent form of processing do not alter the mineral balance, but reconstitution and preparation is still sometimes deleterious to the balance as salt is frequently added. ***I predict that "Salt" and food packing will become as controversial and in the news as nicotine and tobacco have been during the last ten years. Food processors and packers will be held liable for health ramifications of salt the same as tobacco processors recently were held liable for smoking maladies.*** *The excessive use of salt is approaching a national crisis!* **Billions of dollars in health care can be saved, while improving quality of life, if the intake of salt is reduced by just fifty-percent!** And general health may be further improved by a reduction of seventy-

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thoroughly before bagging it and store in the refrigerator. Slice it as you use it or slice the whole loaf before bagging it.

Gary's Salt Free Multi Grain Bread (with a bread making machine) 28-ounce loaf (as small as our Sunbeam will handle) less dough doesn't catch on the pan sides during the kneading time. This should work from scratch with hand kneading also!

Put the ingredients into the machine as the instructions direct (for our Sunbeam as follows)

Liquids ingredients first:
1 ½-cup water *(Orange juice may be okay, but if you try even half milk it will retard rising of the loaf substantially)*
1-Tablespoon olive oil *(butter or margarine will be fine)*
1-teaspoon molasses *(sugar, syrup or honey is okay, applesauce is probably satisfactory providing some water)*
Dry ingredients next:
2-Tablespoons gluten *(If you use mostly **bread flour** it will have enough gluten, if you leave out the gluten, reduce the liquids slightly)*
¼-cup oatmeal
¼-cup cornmeal
1-cup unbleached all purpose flour
1-cup whole wheat flour
1-cup whole rye flour

Option: 2 cups Bread flour
½ cup whole wheat
½ cup whole rye

Last of all: ½ to ¾ teaspoon of bread yeast *(place in a depression in the dry ingredients if you use the delay bake timer). More than ¾ teaspoon yeast will result in falling.*

The dry ingredients allow for much variation. If all bread flour is used the gluten is unnecessary, but if left out the liquid must be reduced by a Tablespoon or so. All whole wheat, whole rye or any combination of three and five-eighths cups (3-cups + ½-cup + 2 Tsp.). A slight adjustment of liquid is required.

Again the salt is normally a very small part of the ingredients, but has four purposes: it conditions the dough, it retards the yeast, it acts as a slight preservative and it enhances flavor. Potassium chloride does not work as a salt substitute for bread. Just leaving the salt out will result in collapse even before the loaf begins to bake and it falls even further as it bakes. Reducing the sugar and the yeast prevents the falling. The gluten enhances the dough when whole flours are used. Salt free bread will be somewhat more dense

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(especially saturated fat, hydrogenated oils and cholesterol) as problems with US dietary intake today. Several cited mineral or electrolyte imbalance without being specific. Several hinted at the empty calories and low fiber of highly refined starch and sugar.

A well-balanced dietary trend is seemingly about eight-percent saturated fat (including some cholesterol) and not more than seventeen-percent poly and monounsaturated fat (Omega-3 from fish sources and flax is touted as beneficial) providing nine calories per gram. Protein should contribute about twelve to fifteen percent of the calories at four calories per gram, which supplies amino acids, vitamins and minerals, but no fiber to speak of. Fruit, vegetables and whole grains should provide about forty percent, primarily carbohydrates with four calories per gram contributing vitamins, minerals and fiber. Less than ten percent should come from starch (flour) at four calories per gram. The remaining less than fifteen percent may include refined sugar with four calories per gram. Starch and sugar provide energy, but little fiber, vitamins or minerals.

Salt-Free Bread

Making salt free bread is somewhat problematic. Salt is a minor component in the recipe, but has a major effect on the finished loaf. Salt acts as a dough conditioner, yeast retardant and as a preservative, while enhancing other flavors. Leaving out the salt requires reducing the yeast and sugar, and modifying the rising and baking times and reduces shelf life. Simply leaving out the salt leads to severe falling, but careful adjustment of yeast to about one-third and sugar to about one half the normal recipe can yield a pretty good tasting and textured loaf of bread. Using even part milk (for protein) will retard rising and result in a substantially more dense loaf.

If you wish you may add dried fruit (such as raisins, currents, cherries, blueberries or cranberries), nuts, spice or herbs. If adding fruit or nuts do it at the timer signal or according the machine's instructions (for our Sunbeam at the beep halfway through the second kneading cycle).

Set the machine for a normal loaf (for our Sunbeam that's three hours) and for a light crust. The express bake cycles don't allow enough time for raising or baking without the salt. Start the machine and have fresh hot bread in about three hours. I lightly butter the whole outside of the loaf, fresh out of the machine. Let cool

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five percent! Good health may be maintained by as little as 500mg to 1500mg of sodium per day. Most packaged food should carry a label **"Excessive salt intake aggravates many health problems".**

Potassium to Sodium (K/Na) Ratio

This imbalance is a direct result of our food processing and packing industry and can be easily corrected by simple low cost changes. The natural foodstuff available from agribusiness has potassium to sodium (K/Na) ratio of between 3 to over 100. That is three, to more than one hundred times more potassium (K) than sodium (Na). And sparing amounts of chloride.

Wheat (and other cereals) loses much of its minerals including potassium and most of its fiber as the bran and germ is removed during the milling process to produce white flour. After the flour is robbed of all but energy (starch) it is enriched (replacing no fiber and precious few of the nutrients removed); the resulting flour is grossly nutrient and fiber poor, compared to cereal grain having been manufactured into whole-grain product or whole-grain flour. Rolling oats or other cereals has essentially no effect on the mineral or fiber content.

Vegetables have a natural K/Na ratio of fifteen to more than forty, but when canned by boiling, may lose up to half the potassium to the processing water and then are seasoned with salt (NaCl). After draining the fluid and dumping it down the drain, the result is a table ready product with a K/Na ratio of less than two and if more salt is added at the kitchen stove during preparation or at the dining table winds up with more sodium than potassium. This sodium/potassium imbalance interferes with the insulin/rennin process hastening the development of hypertension and diabetes.

Fruit has an initial K/Na ratio of thirty to more than a hundred, but if processed by boiling looses much of the potassium to the process water and then is canned in sugar syrup. Much of the potassium was lost reducing the K/Na ratio and the syrup overloads the body's insulin/rennin balance aggravating if not an actual precursor to diabetes.

Meat, fish and fowl have a natural K/Na ratio of three to five, but if processed by boiling looses potassium and is usually seasoned with an over ample amount of salt. Curing meat adds inordinate

amounts of sodium (chlorides & nitrates). Final product before adding salt in the kitchen or at dining table is approaching one, but as eaten may be as low as one tenth (ten times as much sodium as potassium). Fast foods are laced with salt and prepared using hydrogenated oils both deleterious to basic health. The prepackaged meal helpers, seasoning packets and packets for sauces and dressings have ridiculous amounts of salt and sumptuous amounts of hydrogenated oils. The amount of sodium is sometimes more than 500 mg per meager ½-cup serving of 15 to 300 calories. After 20 servings (2000 calories) for a days intake, the sodium may be more than 4000 mg and potassium as low as 1000 mg; the exact opposite of a healthy intake.

The processor is not the only culprit, because you noticed additional damage was done in the kitchen and at the dining table. Little wonder our medical profession is strapped with a job of disease management, rather than health care and the pharmaceutical business is getting wealthy as the patients are bilked of precious income and continue to suffer from the suppressed symptoms and induced side effects.

Processing institutions are profiting abundantly, while their customers are suffering continually as patients in the medical and HMO institutions, which take millions of dollars from the social security payments and Medicare benefits of the already poverty stricken geriatrics (some social security benefits or grants are below the poverty income level). The younger sets are laden with obesity, plagued by PMS, tortured by cancer, threatened with miscarriage, and limited by hypertension, rheumatism, asthma and other degraded body functions. Teenagers are experiencing strokes and heart attacks.

My doctor says that hypertension as a function of sodium (or sodium sensitivity) shows up in very few patients and not until the sodium intake is reduced substantially. I think I have found that until I get the sodium below 2000mg per day, there is little correlation, but if I get down to around 1000mg per day and then have an upswing by eating half a pizza or a large dill pickle. My blood pressure will jump by 10/5 or more and will take a couple of days to come back down. It takes about a quart of water to flush out 1000mg of sodium. And the extra 1000mg of sodium will add nearly a pound to my weight by hydration. Since the Daily Value of sodium has

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- *Promote the use of whole grain flour for bread, pastry and pastas.*
- *Encourage the use of brown rice, barley and oats.*
- *Discourage the primary use of highly refined sugar, highly refined flour and hydrogenated oils.*
- *Continue education to discourage smoking, excessive consumption of alcohol and drug abuse including pharmaceuticals.*

It is entirely possible that smoking and alcohol consumption desensitizes the taste buds resulting in the use of even more salt than the average, which aggravates the intake mineral imbalance and intensify the resulting health maladies.

The incidence of stroke and related cardiac problems in Finland was reduced substantially when Finland promoted the national use of PanSalt, a mixture of 57% sodium chloride, 28% potassium chloride, 12% magnesium sulfate and 2% lysine. Perhaps the inclusion of potassium gluconate, potassium sorbate, potassium citrate or other potassium salts rather than chloride, could provide the increased K/Na ratio and also reduce the chloride, while achieving an even more favorable taste, but the pleasant taste may be more related to Chloride than the metallic component.. The addition of some calcium compound(s) would also seem to be in order. (Perhaps 50% potassium compounds, 25% calcium compounds, 12% sodium, 6% magnesium compounds and the other 7% including lysine, iodine, boron and even fructose). **Such a product could save our senior citizens billions of dollars in prescription cost, eliminate much of their suffering and delay the onset of many diseases by several years.** Many would enjoy these additional years without the need for fulltime assisted care. This booklet is *not intended* to cover the subject completely, nor is it intended as physician advice, but only to expose the problem and suggest an improvement direction. The cited references present undisputed documented case studies conducted during the last century in many countries. **No change in lifestyle regimen should be undertaken without your physician's involvement.**

The listed references (and my personal history) provided the major basis for this article, but many other books, articles, cookbooks, etc. partially read were source material. Most sources cited salt as a culprit to be reduced, and most cited excessive fat

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potassium than sodium, but many do not list the potassium content at all! If 2400 mg is to be used as sodium DV, it should be an absolute maximum and 3500 mg of potassium should be an absolute minimum.

Hypertension and arterial sclerosis leads to circulation disorders including hot flashes, chills and toxemia-like problems including swelling, water retention, gout etc. The more severe debilitation lead to heart attacks and strokes.

A few foods are listed below, more complete lists can be found in the references. (The processed peanuts gained potassium, a rather unexpected change unless a source of potassium was added)

		Fresh		Processed	
Food	**Serving**	**Potassium**	**Sodium**	**Potassium**	**Sodium**
Beef	3.5 oz	355	63	145	1134
Salmon	3.5 oz	505	60	326	554
Corn	Ear/½ cup	197	21	195	286
Peas	½ cup	192	3	147	214
Peanuts	1 oz	187	2	196	125
Flour / Bread (white)	1 cup/slice	134	3	30	135
Same whole wheat	1 cup/slice	486	6	71	148

Remedies

To reverse the twentieth century trend in the twenty-first century there are several possible steps, some of which are:

- *Acknowledge the problem and place the health of the population above the financial status of the food packers and pharmaceuticals.*
- *Require all labeling to include the potassium content if sodium exceeds 1-mg/calorie.*
- *Educate the public concerning the potassium sodium ratio dilemma.*
- *Reduce or eliminate the water used in processing meats, fruits and vegetables.*
- *Use potassium salts for curing meat, fish and fowl (ham, corned beef, bacon and canned fish). These products might be called K-ham, Korned beef, baKon and K-fish.*
- *Promote the use of salt substitutes containing potassium, magnesium and calcium.*
- *Promote the use of potassium and calcium compounds for leavening agents.*

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been established at 2400mg (and most people are getting 6000mg to 8000mg per day) it is little wonder there seems to be no significant correlation between sodium intake and degree of hypertension (most people are sodium saturated).

Body Cell Function

Normal function of the human body requires an input of more potassium ions than sodium ions. The kidneys are designed to waste the excess potassium, while conserving (retaining) the normally meager amount of sodium. This is accomplished by osmotic filtration, passing pre-urine into the kidney filter tubules and then with electric potential controlling the filter porosity, selectively returning ions based on their charge and size. Sodium has a lesser potential and smaller size passing back into the blood stream, while the larger potassium ions with higher charge is wasted into the bladder. The bladder may allow some fluid to return into the blood stream for perspiration thereby further concentrating the urine.

Mineral	Atomic Number	Atomic Weight	Ion Shells	Oxidation Voltage
Sodium	11	23	3	+2.714
Magnesium	12	24	3	+2.37
Chlorine	17	35	3	-1.36
Potassium	19	38	4	+2.925
Calcium	20	40	4	+2.87

Since the atomic weight of potassium is nearly twice the atomic weight of sodium, it takes almost twice as many milligrams of potassium to provide the same number of ions as the lesser amount of sodium. Unfortunately the typical dietary milligram intake of sodium is frequently more than the milligram intake of potassium due to the alteration of mineral content as a result of processing, packaging, preparation and additional seasoning at the table.

Heat Exhaustion

At this point let me flash back to my childhood (forties) on the farm. During the summer with hard work at temperatures above one-hundred degrees, like making hay in July, working in the upper reaches of the barn, sweating like a stuck pig bleeds, there were times that conditions were suitable for heat stroke. It was not uncommon to reach a point where sweat would decrease due to lack

of mineral and/or water and our body temperature begin to rise. Our classic solution was to stop work briefly, drink a glass of water with a half-teaspoon of salt and in no time the queasy, nauseous, unwell-feeling would give way to normalcy and back to work making hay. We would say, "I was just running out of salt."

Fast forwarding ahead into the Air Force (fifties) and while in the Tropics assisting the Army (sixties), salt tablets were provided to stay off heat exhaustion. It seemed pretty obvious that salt was an essential input to active lifestyle. When the "no salt" craze entered circa seventies, I accepted it as just the newest fad and was want to ignore it for the most part. Most of our food was not of the prepackaged type and adding some salt, I felt was not out of order. A third of a teaspoon of salt has around 800mg of sodium.

Salt had made its assault on and insult into my lifestyle, and was not to be pushed aside; after all I had substantial irrefutable first hand evidence that salt insufficiency could lead to heat exhaustion-like health malady leading even to death. The Red Cross First-Aid Classes even espoused such a cause/effect. However, too much of any good thing, is not necessarily a good thing? Balance with self-control is the key.

The established sodium daily value is now set at 2400 while the potassium Daily Value is at 3600mg so the ratio is way out of balance. If these values are to be retained, the 2400mg of sodium should be an absolute maximum and the 3600mg of potassium should be an absolute minimum. It would be better to establish the sodium at 2000mg maximum and the potassium minimum as 6000mg or more. References for the Recommended Daily Allowance table circa 1989 listed Sodium at 500 mg and Potassium at 2000 mg with Chlorine as 750 mg. I realize the potassium may be a problem in cases of kidney failure, but there is a good chance that with proper electrolyte balance there would be far fewer cases of kidney failure. Bear in mind I am an electrical engineer not a health care professional.

Ulcers

In the seventies, my lifestyle became somewhat sedate as a design engineer in air-conditioned space. Our food fare trended somewhat toward the prepackaged varieties and the salt content was not objectionable. With the stress of work and home, I married a

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stiffness such as rheumatism, arthritis, arterial sclerosis, etc. Signaling difficulty leads into dementia, Lou Gehrig's, Parkinson's, Alzheimer's and other memory and nerve/motor function disorders. Chloride seems to assist the sodium in its deleterious interference. Osteoporosis is aggravated by the artificial predominance of sodium, when the natural trend would have a predominance of potassium. This may be a mineral replacement process similar to ion exchange the resin bed of water softeners. As potassium is replaced by sodium, a spongy texture results from the smaller size of the sodium ion.

I am trying to keep my daily sodium intake well below 2000 mg, which makes for tough grocery shopping, but does manage my blood pressure, fairly well. After about four months, a meal with 1000 mg of sodium would cause my systolic/diastolic blood pressure to surge (15 to 20 systolic / 7 to 10 diastolic mm/Hg) enough I can feel my head throb. It takes a couple of days drinking more than a quart of water a day to settle back.

On the basis of less than one milligram sodium per calorie, a daily intake of 2000 calories (more or less) will likely include between 1000 and 1500 milligrams of sodium. Since potassium is listed for only a few products, it is somewhat problematic to ensure my potassium intake is more than 4000 milligrams, but including several servings of fresh fruit and raw vegetables will likely provide more potassium than the sodium. The circa 1989 RDA for sodium was listed as 500 to 2000 milligrams while potassium was listed at 2000 to 8000 milligrams. While this range is in the order of a K/Na-ratio of four, it can as low as one or as high as sixteen! Reportedly the ratio is more important than the individual amounts; a good target seems to be a ratio of four or more, which provides about twice as many potassium ions as sodium ions. A teaspoon of salt has 2360 milligrams of sodium and around 3600 mg of chloride. Sodium in water from a NaCl based water softener is often overlooked and **some prepared "helper" foods and/or flavoring packets have more than 700 milligrams of sodium per serving** as small as one-half cup. Such fare can exceed the 2000-milligram upper limit in as little as three servings (a cup and a half), not an unreasonable meal portion. Current food labels list the sodium "Daily Value" as 2400-milligrams and potassium as 3500-milligrams, a K/Na ratio of less than 1.5, therefore less ions of

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my cardiac circulation was impaired under stress, even though it appeared normal unstressed.

The following week a cardiac catheterization revealed there were two total blockages and another nearly seventy-five percent. Collateral circulation in the heart wall had developed about forty-percent bypass of the total blockages. The next week open chest quadruple cardiac bypass grafts were performed. I am now on the road to recovery; the mended heart after healing should be good for decades more of active essentially unimpeded lifestyle. Without that stress test, the cardiac situation probably would have remained shrouded, waiting for a stress opportunity to present itself as a stroke, heart attack or worse. I did not recognize the episode expressed above to be more than possibly side effects of blood pressure medicine or temperature elevation from mineral imbalance or deficiency.

Following discharge from four days in the hospital (substantial Acetaminophen, potassium chloride and little food), I developed colon-rectal bleeding into the stool, and urinary slowdown, followed by a week of upper gastro-intestinal bleeding. Some Flomax improved the urinary problem and gastric acid inhibitor (Zantac then Protonix) controlled the UGI bleeding. Helicobacter Pylori breath test was negative; no further problems have been encountered in two years.

Following the cardiac bypass surgery I started on Lopresser (Metropolol 25 mg / day) and Digitek (250 µg.). The Lopresser resulted in substantial sexual dysfunction (not all bad for the first few weeks of healing) but reducing the dosage to half (12.5 mg / day) seemed to alleviate most of this impotence problem. About five weeks after discharge from the cardiac unit, I started working up to thirty minutes of exercise four times a week. Since the CardioFit unit was rather stressful on my chest, we purchased a stationary air-bike with articulated handlebars, but left the handlebar articulation disengaged until about eight weeks after the surgery.

General Maladies

When the K/Na ratio becomes too low, the cell wall function is degraded also resulting in calcium-magnesium imbalance upsetting cell reproduction, operation, and signaling. The reproduction (cell division) irregularity allows cancer like diseases to develop. The operation degradation promotes hypertension, stroke, heart attack,

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widow with four children (two teenagers within a week). It was only a couple of years before ulcers were diagnosed and resolved by a regimen of bland diet (very little salt and low fiber) lots of milk and bottles and boxes of Mylanta. Bananas and mashed potatoes were recommended. During the middle seventies, I quit the engineering profession to buy a farm. In addition, I proffered a consulting arrangement whereby I was available at the Company's request to assist them with problem solving worldwide. Life on the farm was at times hectic and consulting was at times high-keyed, but the outside income more than offset the farming short fall of getting started. In five years the farm was nearly self-supporting, but I decided to go back to engineering full-time and try to keep the farm afloat as an avocation. This would have been somewhat easier had the full-time work been closer to the farm, but the engineering work mostly was in Germany and the farm was in Michigan. Within five years the distance became unmanageable, so we sold most of the active farm assets.

Within a few years, gastritis was back at the door and Tums became a control of life. Not too many years and Zantac was my daily assistant, until my older brother sent me an article on Helicobacter Pylori (a bacteria living in the stomach lining). Within a couple of months I did some library research, presented it to my doctor and he decided there was sufficient evidence and very low risk so I underwent a regimen to eradicate the H-Pylori. Zantac nor Tums are any longer necessary and life flows pleasantly for the last eight years. Then one day I went to get my teeth cleaned, the hygienist reported that my diastolic blood pressure was over one hundred, so back to the library for more research only to discover excessive salt may be involved as well as a sedate lifestyle.

Exercise

I started a regimen of exercise on our CardioFit machine twenty minutes, three times a week, working up to about one stroke per second and cut back substantially on sodium. This activity and diet adjustment resulted in feeling better, reduced blood pressure and a modest loss of weight. In an effort to get the sodium under 2000mg per day at around 2000 calories per day, I adopted a method of looking at the nutrition label and if the sodium exceeded 1mg per calorie to restrict this item severely. If the sodium was less than 1mg per calorie, consumption was okay, but only if the sodium was less

than one-half mg per calorie was it unrestricted. Initially I used a modest amount of salt substitute but after a few months food tastes pretty good without salt, but I have been experimenting with a salt replacement consisting of about 50% potassium compounds, 25% calcium compounds, 12% magnesium compounds and 10% sodium compounds. The remainder is lysine and potassium iodide. Compounds of asorbates, citrates, glucomates, sulfates and chlorides were included. I would like to find a mixture that tastes-good, seasons-well and is less than 50% chlorides.

Hypertension

All animal cells (human included) possess an electric charge powered K/Na pump mechanism exchanging sodium and potassium ions (calcium and magnesium to a lesser extent) across/through the cell walls. The ratio of potassium to sodium (calcium and magnesium also) determine the length to width ratio of many cells. As sodium enters the cell the width increases contracting muscle cells and as the sodium exits to be replaced by potassium the length increases relaxing the muscle. Cells associated with the blood vessels contract or relax to steer blood and energy to the location where needed and to maintain consistent flow over the vertical body dimension and conserve heat. Without this control the brain would be blood starved, being the highest point in the system, requiring the greatest pressure to assure flow. Various organs use electric charge to control osmotic flow direction and/or use the osmotic flow to generate electric current for signaling.

Estimates put about one fourth of the energy of the life process as input power to these K/Na pumps maintaining life functions while the balance provides locomotion and warmth for the body. When excess heat must be rejected, this is accomplished by evaporation of perspiration on the body surface (mineral content decrease surface tension, which increases the rate of evaporation). For mankind the whole body surface is used, but some animal species use only the tongue for evaporation and only radiation from the body in general. These animals have a thicker, tougher hide to provide heat retention and repel predators in general. Neurons (nerve cells) are very long compared to their width and control general motor function by electrical current conduction from the brain to the heart, lungs and other body parts. There are both sympathetic (voluntary) and autonomic (involuntary) system functions.

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Most hypertension treatment drugs regulate the whole body system without regard to the actual body function requirements. For this reason, side effects include fainting or dizziness when sitting up or standing quickly, male (and female) sexual dysfunction, lack of energy for sports, sluggishness for other regular daily activities and sometimes general-unwell-feelings. I was having some success with blood pressure control using coenzyme Q-10 dosed at 100 mg per day, while keeping my sodium intake below 2000 mg. It also has taken the stone of male dysfunction out of my shoe (a stone in my shoe makes me limp). "The Salt Solution" (see references) mentions that coenzyme Q-10 (dosed 100 mg to 300 mg per day) has an affect similar to hypertension drugs, but with no known side effects.

When I was taking ACE inhibitor (Zestril 20 mg/day), I experienced poor muscle response, dry cough and male sexual dysfunction (impotence from three to sixteen hours after dosing). At 20 mg each morning the symptoms were marked, at 10 mg per day less pronounced (six to twelve hours after dosing), and at 5 mg per day hardly noticeable and still some blood pressure reduction. Angiotension antagonist (AvaPro 150 mg/day) resulted in some male sexual dysfunction (two to ten hours after dosing) and reduced muscle response (general aching under increased activity), but no dry cough.

One evening (October 2001) I was hurrying home from the auto dealers (having left the car for repair), I experienced an episode of ill feeling where a subtle numb-tingling started at each elbow and gradually progressed until my entire upper torso was engulfed. I stopped to rest, leaning on a cable termination post, and in a couple of minutes the general unwell feeling subsided, I began to sweat, so continued on toward home at a slower pace. At the time I attributed the incident to side affect of the blood pressure control drug or possibly sodium deficiency, but later mentioned it to my doctor, who immediately advised stress testing and circulation study.

Heart Disease

Unfortunately, about that time I changed employers, which resulted in change of health care provider near the end of the year and group providers numbers were not stable until the following February. An upper extremities Doppler circulation report was normal, but the eventual Thallium Treadmill Stress Test indicated

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Echo Cardiogram mid Feb 02 [Normal]

Thallium Stress Test 11 Apr 02 [Restricted Blood flow to the lower (anterior) portion of my heart under stress at 150 heart rate]; normal at rest

Cardio-Catheterization 3 May 02 [Two total blockages and one 75% restriction] all 40% bypassed by collateral circulation [stint repair not appropriate]

Quad Bypass Surgery 10 May 02

Upper Gastro-Intestinal 5 Jun 02

Colonoscopy 9 Jul 02

To correct Cholesterol (225 total- Jun 01), considered elevated

Niacin (Vitamin B3) Started 500-mg 19 Jul 01, increased to 1000-mg 23 Jul 01, increased to 1500-mg (1000 nights, 500 mornings) 29 Jul 01 (Sep 01 cholesterol reduced to 177 with HDL at 47)

Lipitor 10-mg nights mid May 02 [replaced Niacin] (Jun 02 cholesterol reduced from 177 to 115 with HDL at 28)

Zocor 20-mg nights 3 Aug 02 (replaced Lipitor) (Sep 02 cholesterol increased from 115 to 117 with HDL at 33)

Niacinamide added with Zocor 750 nights, 250 mornings (Jan 03 cholesterol increased to 127 with HDL at 44)

Niaspan 1000-mg at night, reduced Niacinamide to 250-mg mornings with the Zocor (Jun 03 cholesterol 115 with HDL at 49)

Jan 04 Switched from NiaSpan to **Niacin TR** 1000-mg nights, 500-mg mornings with the Zocor

Medicines I tried looking for a hypertension solution

Zestril: (Started Aug 08 01 20-mg morning) Caused marked erectile dysfunction 3 to 15 hours after dosing, some dry cough. Aug 19 01 reduced Zestril to (10-mg morning) Erectile dysfunction 6-10 hours after dosing, 30 Aug 01 Stopped Zestril

AvaPro: 8 Oct 01 150-mg Erectile dysfunction 4 to 12 hours after dosing. Stopped AvaPro 13 Jan 02

Co Q-10: 100-mg 19 Jan 02, increased to 200-mg 26 Jan 02, decreased to 100-mg 9 Feb 02, Stopped Co Q-10 9 May 02

Hydrochlorothiazide: 12.5-mg mornings 4 Apr 02

Digitek: [heart rate stabilizer] started 0.125-mg 15 May 02 Stopped Digitek 22 Jun 02

Metropolol: 20-mg morning, 20-mg night 4 May 02 Reduced Metropolol to 10-mg (morning a& night) 15 May 02 Reduced Metropolol to 5-mg (morning & night) 19 June 02 Stopped Metropolol mid Feb 03 (replaced with Toprol XL)

Toprol XL: 25-mg morning 2 Aug 02 reduced to 12.5-mg 19 Feb 03 increased to 25-mg 13 Jun 03, reduced to 12.5-mg 12 Oct 03,

The abrupt correction during early January 03 occurred during a trip to Germany, but I can not attribute the correction to change of diet, exercise or medicine regimen.

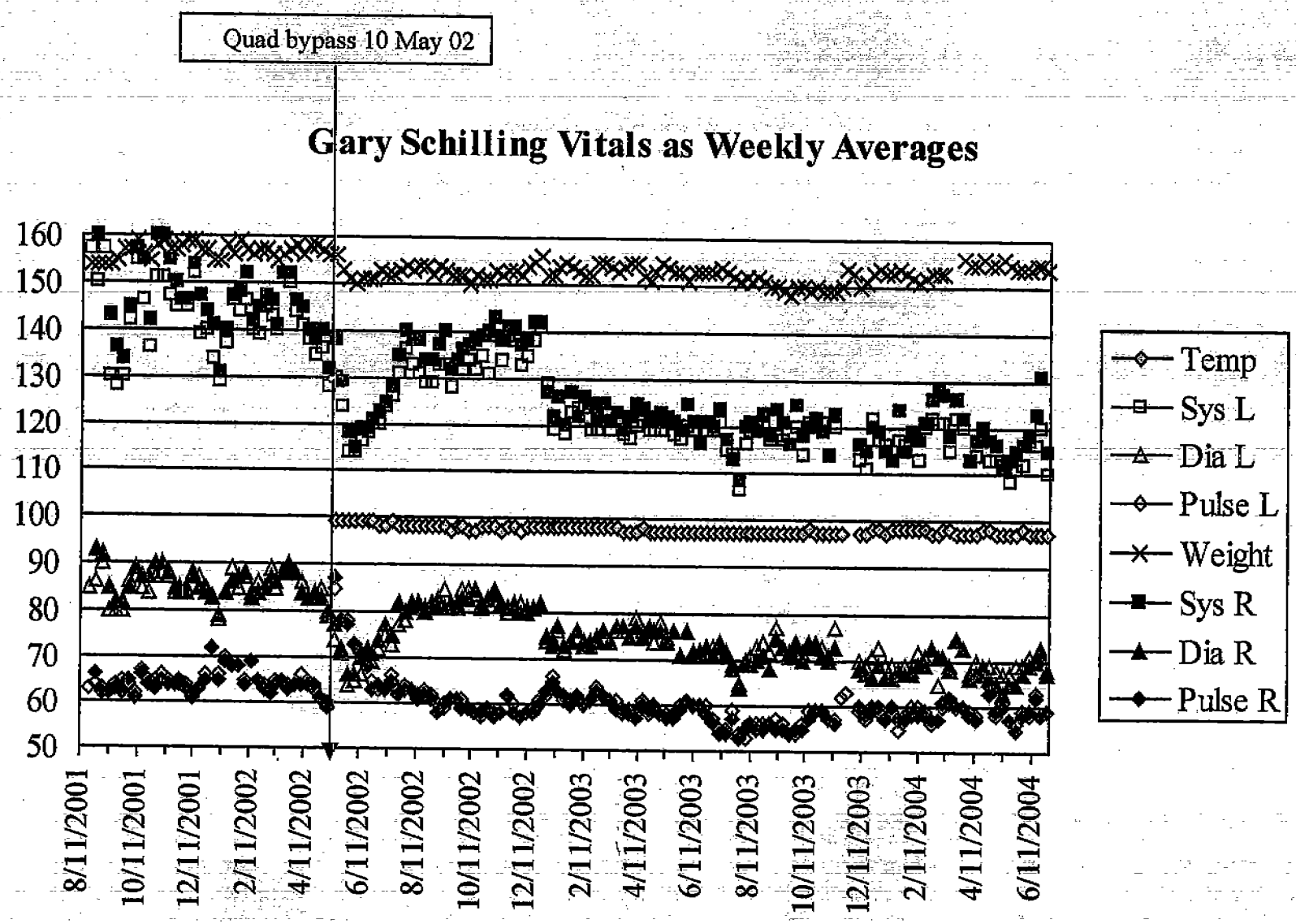
The valley in late July 03 was when my wife was in the hospital.

The missing data in November 03 was due to a broken Blood Pressure Monitor.

The rise in March 04 was during the period that I was visiting our children, grandchildren and great-grandchild in California (poor sodium control)

The rise in June 04 was during a period that I was visiting our kin in Michigan (poor sodium control).

Schilling 15 of 16



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NUTRITION, DIETETICS AND FOOD SCIENCE
BRIGHAM YOUNG UNIVERSITY

PROVO, UTAH

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Brown 1 of 2

RECOMMENDATIONS FOR REVISING THE FOOD GUIDE PYRAMID

We teach introductory college nutrition at Brigham Young University to about 2000 students annually. **We have found the current Pyramid:**

1. **Useful** in teaching the need for a variety of foods.
2. **Flexible** for using with a wide range of ethnic preferences.
3. **Easy to remember** standard portions because of consistency from group to group (1/2 c cooked cereals, pastas, vegetables, fruits; ¾ c fruit or vegetable juices, etc.)
4. **Works sufficiently well** with mixed dishes, once people understand standard portions in each group. Our clientele (college students) seems to quickly grasp the notion of mentally dissecting combination foods and estimating the food groups they represent.

The following need to be strengthened:

1. Consumers' don't know or can't visualize portions.
2. Consumers don't understand that the low end of the range of portions in each group is appropriate for people with low calorie needs, and that the high end of the range is for people with higher calorie needs.
3. Consumers aren't aware that the Dietary Guidelines provides qualifications on the Pyramid (esp., calorie balance, moderation in fat intake, adequate intakes of fruits, vegetables, whole grains, etc.).
4. Consumers don't understand the benefits of following the Pyramid (i.e., meet nutrient needs without excesses of calories, fats, and added sugars).
5. Consumers don't realize that choices within a food group can vary greatly in nutrient density (e.g., iceberg lettuce vs spinach).
6. Current recommendations and portions in the Meat group are confusing (two-to-three, 2-3 oz servings daily). Using 5, 6, or 7 oz total through the day, according to estimated calorie need, works well. This also makes it easier to work with meat alternates.
7. Consistency in portions on Nutrition Labels and Pyramid recommendations is needed.
8. Clarify the relationship between starchy vegetables such as potatoes and grains. Many people use potatoes and pastas interchangeably in meal planning and find it confusing that potatoes are not grouped with the grains.

Please don't designate 12 calorie levels! We believe that the majority of consumers will

- Be inaccurate in estimating their calorie need and thus misled in the recommended number of portions,
- Be confused, overwhelmed, or discouraged at the technical aspects of this process, or
- Not care.
- Moreover, given the large variation in metabolic rates, activity levels, and energy in portions of foods even within the same food group, basing the recommendation on specific calorie levels gives a false sense of precision.

We believe that a more successful approach would be better communicating the message that **weight gain comes from taking in more calories than one expends.**

postmarked 8/27/04

RECOMMENDATIONS FOR REVISING THE FOOD GUIDE PYRAMID

Brown 2 of 2

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August 27, 2004

August 26, 2004

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Wright
1 of 2

Food Guide Pyramid Reassessment Team
USDA Center for Nutrition Policy and Promotion
3101 Park Center Drive, Room 1034
Alexandria, VA 22302

Dear Food Guide Pyramid Reassessment Team,

Thank you for your efforts to update and revise a great educational tool. The food guide pyramid has been effective in giving a visual guidance system to base healthy eating habits on. The pyramid shape is a good display of the food groups and moderation of particular groups.

The development of a slogan to coincide with the food guide pyramid would be a helpful addition. The slogan needs to convey the idea that the food guide pyramid is just a symbol to display a general healthy eating plan. The food guide pyramid is a starting point for good nutrition and should be used as such. Good nutrition must be very individualized for each person. It would be impossible to create a symbol that would be an exact healthy eating plan for one person, or even a group of similar people.

Some helpful additions/revisions to the current food guide pyramid might be beginning with a base of fruits and vegetables, a second level with carbohydrates and water, a third level for protein—including nuts and legumes, and dairy products, and a fourth level including fats, sweets, foods high in cholesterol, and foods high in sodium. A small pyramid could be displayed within each level to indicate the best choices (most nutrient dense foods) from each food group along with clear graphics displaying whole grains, lean meats, low fat dairy products, and vegetable oils.

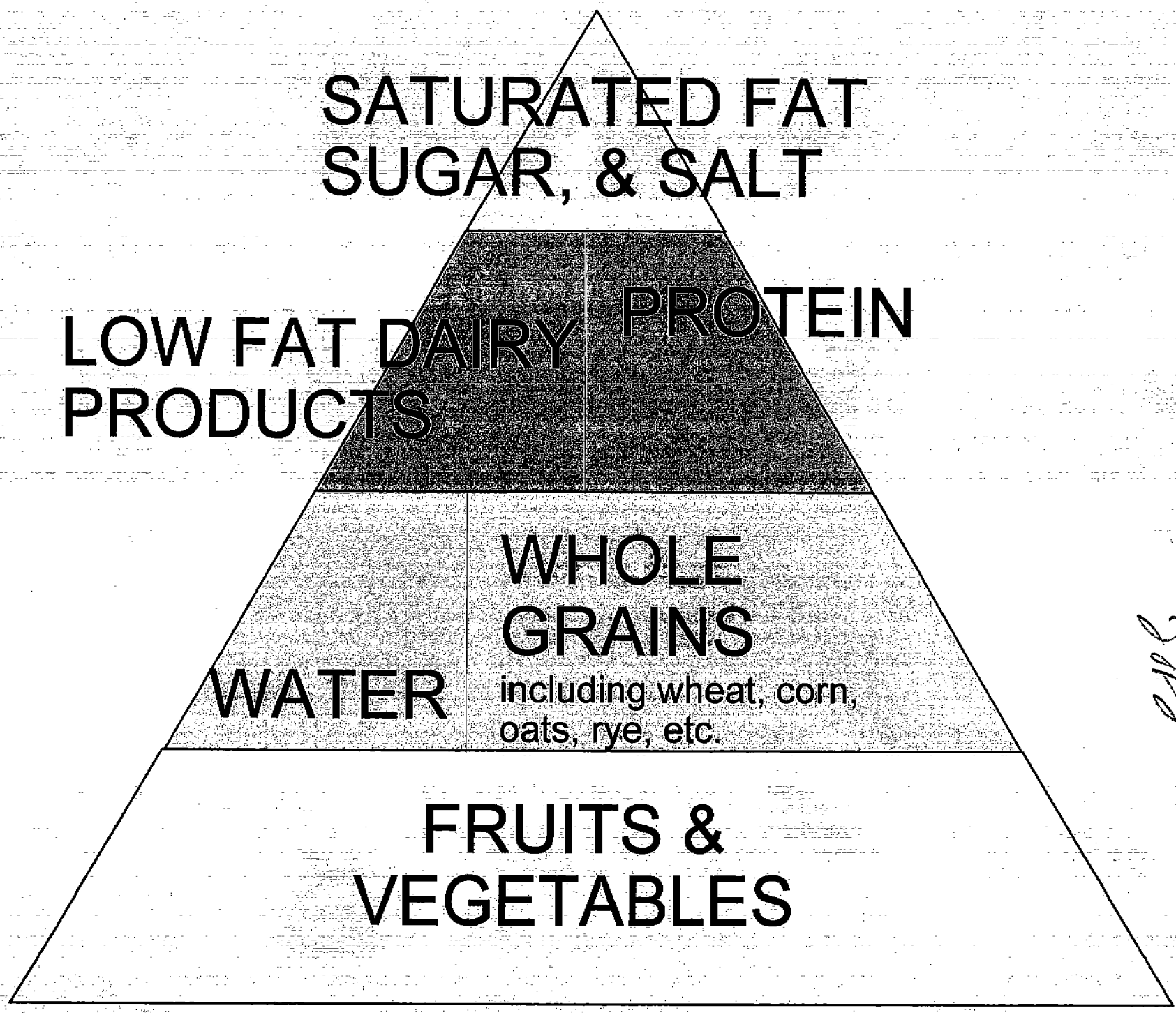
Individualizing the food guide pyramid is a good idea. Specific food guide pyramids could be developed for specific groups of people, i.e. elderly, athletes, etc. These could be available to individuals requesting the information, but a general food guide pyramid is still the best option for basic nutrition education to the population as a whole. It gives a standard for the majority of the population to adhere to, and to base a healthy diet on. With some revisions the current food guide pyramid is a great tool to convey in a simple format specific foods to eat and proportionate amounts.

Sincerely,

Lisa Wright

Lisa Wright
Dietetic Intern
Idaho State University

postmarked 8/26/04


SATURATED FAT
SUGAR, & SALT
LOW FAT DAIRY
PRODUCTS
PROTEIN
WHOLE
GRAINS
including wheat, corn,
oats, rye, etc.
WATER
FRUITS &
VEGETABLES

UNIVERSITY OF MISSOURI
Extension

NUTRITIONAL SCIENCES EXTENSION
College of Human Environmental Sciences
Columbia, MO
PHONE
FAX

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August 27, 2004

Food Guide Pyramid Reassessment Team
USDA Center for Nutrition Policy and Promotion
3101 Park Center Drive, Room 1034
Alexandria, VA 22302

Dear Team Members,

Please consider the enclosed comments related to the Food Guide Pyramid.

Thank You,

Candance Gabel

Candance Gabel, MS, RD, LD
Associate State Nutrition Specialist
State Coordinator - FNEP

postmarked 8/27/04

University of Missouri, Lincoln University, U.S. Department of Agriculture and Local Extension Councils Cooperating
EQUAL OPPORTUNITY/ADA INSTITUTIONS

Food Guidance Discussion - NW Unit
August 13, 2004 ITV

Gabel 2 of 21

1. Do we keep or change the Pyramid shape?
I like the pyramid shape – ones you need most of are at the bottom, and what we need least of at top
(From Summer Nutrition class) Canada's symbol is rainbow shape – symbolism of covenant with God; largest piece is still the grains
Physical activity and water need to be included in whatever we end up with – plus the food groups – see Penny's graphic
Saw pyramid but upside-down – grain/big at top and that's where we want to be – goal to move "UP" the pyramid to be the "tops" (one NPA's second-grade daughter pointed this out)
If it's new, people will look at it; on the other hand, if we change the symbol, some will say it's always changing - what's the use of trying to follow it, or what really is right?!
Use measurable quantity instead of "serving" that is not as clear
Graphic: Plate shape – we talk about filling your plate with majority of plate being f&v and breads, that's more realistic, looks more like what I actually will see when I eat
Vision: have pyramid 'swish' into plate – a way to "connect the dots' between the pyramid (past) and plate (realistic) OR have pyramid that has a colored path to a plate with amounts needed from each type of food in the graphic as well
Concern with the graphic not being very user friendly, should be understandable at a glance
Graphic: have a balance (or scale or seesaw type thing) with food on one side and exercise on the other

2. What type of slogan would you use to encourage consumers to make healthy food choices?
Seems like calories is the bottom line in weight management – people know this but forget it when making food choices
Somehow slogan needs to equate that balance between eating and moving
Use the Pyramid (or its replacement) and say "get 'er done – more energy, feel better"
"I move. Don't chew?"
'Eat to live, don't live to eat' (this one from the past had a lot of support in our group)
"Move it and lose it"
The slogan needs to include more than just food.

3. What do you think are the advantages or disadvantages of the pyramid plan to provide a more individualized message as opposed to a generalized message?
Obvious advantage: more tailored to the individual, but disadvantage may be access and cost
Would FNEP teach a general message? We would think so, with a varied audience like ours
Would the symbol/slogan be generalized so it would fit for all? We think it should be.
Accessibility – assuming it's a on web site – could use any public or private computers
For physicians – would info be available for them to use with patients?
This is where particular measurable servings would be advantageous.
For average everyday person using the info would need to include "average, everyday" foods like onions and potatoes, not "recipe" foods like capers (whatever they are!)
Must have goals/suggestions/recommendations) that are attainable and that do not scare folks off

Individualized info must be easy to understand for someone who's not studied a lot of nutrition classes
(Here's a wild idea, but not necessarily so far off when you think about the Bod Pod) Need a little computer – individual would stand on a 'scale' and the computer would tell you all you need to eat/move/be. It would need to also have the ability to input other variables like age, race, gender, and any hereditary concerns that might influence food/activity choices.

4. What core messages would you use to meet the following behavior changes?
   a. Keep caloric intake balanced with energy expenditure to prevent weight gain, promote weight loss, and/or maintain a healthy weight

"Exercise, drink water and stop eating when you're full'
'Eat when you're hungry, stop when you're full' – we'd then need to help people identify TRUE hunger
[We liked this one from SE Bootheel – "Change your outside from the inside"]

   b. Promote nutrient dense food choices to increase the intake of vitamins, minerals, fiber, and other key nutrients especially those that are often low in typical diets

Provide recipes for quick, easy to fix, nutrient dense foods or meals
Suggest different foods – other than what the individual is accustomed to (healthier but similar choices)
Get fast food places to change their menus and offer healthier choices
All grain foods are not created equal – "not all foods in a food group are created equal"
"Eat a variety of foods"

   c. Lower chronic disease risks by lowering intake of saturated fats, trans fat, cholesterol, sodium, and other food components that are often consumed in excessive amounts

Have classes on label reading
Focus on cooking/preparation methods – e.g., baking instead of frying
Have schools or other public food servers prepare food in ways other than frying - more often
Note on foods that indicate "Heart Healthy" or "Heart Smart" – good to continue – it's helpful

5. What do you think are the components of effective interactive educational tools?

See "little computer" above
See answers to #3 above
Needs to be simple
Able to personalize with your own info (like hereditary concerns)
Need other venues besides internet and cd's
Could be a phone number with menu: Male press one/female press two; if your age is between 18-40 press one/40-65 press two/65-80 press three/ 80+ hang up and enjoy yourself.
Worksheet (hard copy) to fill in, send in and get results back - for those who are not interested (for whatever reason) in using an electronic version (don't like computers, like my dad; or don't use computers, like Amish or Mennonite families, for example)
Public service announcements on tv and radio, even in printed media, letting all know where/how to access info

Have opportunity to tell activity of choice, and favorite foods so feedback could include activity level needed in terms of favorite activities and recipes/meal plans that include favorite foods

6. How should the new Food Guidance System and its message be delivered?
FNEP
Make cartoons or Saturday morning/after-school jingles (like "conjunction Junction, what's your function?" that have the nutrition messages
Also see above #5

Proposed Changes – Food Guidance System
ITV – August 13, 2004

Question #1 – Do we keep or change the Pyramid shape? If we change, what type of graphic would you use?

Responses:

- A shape that suggests movement – For example a train with different cars as food groups, caboose as fats, sweets and oils.
- A tree – with branches representing food groups, leaves the nutrients or healthy foods like whole grains.
- Transitioning from a pyramid to another shape is a problem – Instead update the pyramid by incorporating movement – a pyramid wearing tennis shoes.
- The walking nutrition and food pyramid.
- Food Pyramid in Motion.
- The food groupings could also change even if the pyramid shape is kept.

Question #2 – What type of slogan would you use to encourage consumers to make healthy food choices?

Responses:

- Fuel it and move it.
- Pyramid in motion.
- Foods in motion.
- Healthy people in motion.
- Food to go – pyramid with feet.
- Train – Song – Do the Locomotion.
- Rainbow on a plate – graphic of a plate showing the amounts of recommended servings from food groups as a rainbow.
- Walk in health.
- Pyramid for family – incorporate movement and food.
- Encourage activity that is fun, part of life (not belonging to gym, etc.)

Question #3 – What do you think are the advantages or disadvantages of the proposed plan to provide a more individualized message as opposed to a generalized message?

Responses:

- It's very important to have individualized messages because of varying energy levels.
- General message as well as individualized are needed.
- Use graphics of plates with varying amounts of food to depict individualized energy levels.
- By using individualized messages it seems that the food guidance system is trying to catch up with what as nutrition educators are already doing.

Question #3 – Continued:

- Caution – Nutrition educators do not always know an individual's health profile well enough to individualize food guidance, e.g. vegetarian diets, diabetes, heart disease, religious preferences, etc.
- With individualized guidance, would we be walking a thin line between nutrition education for healthy populations and the need for a registered dietitian because of clinical problems like diabetes?
- The individualized caloric recommendations may be too much information for the general public to handle.

Question #4 – What Core Messages would you use to meet the following behavior changes?

Responses:

Keep caloric intake balanced with energy expenditure to prevent weight gain, promote weight loss, and/or maintain a healthy weight.

Use equations to convey message, for example: Increased physical activity and decreased calories = weight loss.

Use graphics like a scale balancing activity with calories. Could also use a see saw for children.

Focus on nutrients rather than food groups.

Use age sensitive messages.

Include serving sizes.

Promote nutrient dense food choices to increase the intake of vitamins, minerals, fiber and other key nutrients, especially those that are often low in typical diets.

- Eat fruits, vegetables and whole grains.
- Use colors: Color is cool; color me healthy; eat your garden first.
- Mother Nature knows best.
- Back to the basics.
- Eat low on the food chain.
- Size it down, Pump it up, Keep it real – for all three behavior changes.

Note: Ran out of time before getting any responses for behavior change #3 (lower chronic disease risk.

Question #5 – What do you think are the key components of effective interactive education tools?

Responses:

- Motivate consumers to use tools.
- Where can they access tools?– libraries, schools, etc.
- Have CD-ROMs available to check out or buy.
- It's contradictory to have consumers sit in front of computer when we want them to move more – use pop-ups to remind them to get up and move or use chair exercises.
- Keep it simple, current, colorful and fun.

Question #5 – Continued:

- Frisbee, jump rope giveaways – partner with commercial sponsors to provide these.

Question #6 – How should the new Food Guidance System and its messages be delivered?

Responses:

- Nutrition educators.
- Point of purchase like grocery stores, school cafeterias, restaurants.
- Advertising – how do nutrition educators compete with food manufacturers who have lots of money to develop messages? Contracts with universities to design messages.
- Get all commodity groups on board to use the same messages.
- Have Martha Stewart work on designing messages as part of her community service.
- Have all participating partners on the same time line.
- Provide through health care providers.

Gabel 8 of 21

From: Aborn, Marsha
Sent: Tuesday, August 17, 2004 3:38 PM
To: Gabel, Candance E.
Subject: Feed Back from ITV on 8/13

Dear Candy,

Here is the SC's Feed Back from the ITV on 8/13. Thanks for letting us be a part of the process.

Marsha

Question #1 - Do we keep or change the Pyramid shape? If we change, what type of graphic would you use?

- Building Blocks
- Whatever design add exercise and water
- Shape should be different to indicate new message
- Look at Mayo Clinic and Mediterranean Food Guide Pyramid
- Instead of servings sizes use cup measurements

Question #2 - What type of slogan would you use to encourage consumers to make healthy food choices?

- Building a Healthy Life
- Building Blocks of Life
- Pyramid for Life
- Circle for a Healthy Life
- Keys to a Healthy Life - Keys colored coded to Food Group
- Key into Health
- Make it simple!
- Put symbol on all food products

Question #3 - What do you think are the advantages or disadvantages of the proposed plan to provide a more individualized message as opposed to a generalized message?
Advantages - if it were individualized for life stages and/or culture, ethnicity, etc.
People would be able to look for one that best suits their personal situation
Nutrition facts should correspond to activity and serving sizes as well be age appropriate

Disadvantage - would be too confusing with so many individualized messages

Question #4 - What *Core Messages* would you use to meet the following behavior changes?

Bullet #1 - Eat Less/Move More
Eat Closer to Nature
Bullet #2 - More educational messages on food labels
Bullet #3 - More education messages as to what is good fat/good cholesterol; different types of sugar--separate natural sugars from refined (added) sugars on food labels

Question #5 - What do you think are the key components of effective interactive educational tools?

- Lots of visuals
- Easy access/light weight
- User friendly - simple
- Concrete concepts based on real products
- Keep in mind - culture/ethnicity

- Model/role play - tutorial
- Pop-ups with reminders on the web

Question #6 - How should the New Food Guidance System and it's messages be delivered?

- By Nutrition Educators like us
- Doctors/ Offices
- Where food is purchased
- Through all forms of media/mass mailing
- Continue to pressure fast food industry to offer healthy choices
- Mandate food stamp recipients to participate in educational programs like WIC does
- Magnets with new symbols
- Requiring all restaurants or wherever ready to eat food is sold to have the new one posted

Answers to ITV Questions on August 13, 2004
SE-Bootheel FNEP Unit

Question #1:

Do Not Change the Pyramid

Children usually relate to the pyramid
Leave it as it is
Food pyramids are universal – work with what we have (pyramids for diabetics, etc.)
Credibility issue if changed
Add whole grain and lean in describing foods for different food groups

Change:

Add water to current pyramid
Put a rainbow through the fruits and vegetables with a slogan "Somewhere over the rainbow, we'll all be healthy

Question #2:

Eat like an Egyptian (like the song "Walk Like an Egyptian"
It's your life, choose to improve it
Have a healthy heart; eat smart
One step at a time, one day at a time to better health

Question #3:

"The You Message" would personalize the message
Create flaps on each food group. When lifted, health messages underneath

Question #4:

A.
- A. Balance your calories with activity
- B. Change your outside from the inside
- C. Check the trips from your mouth to your hips

B.
- A. Eat a variety of foods
- B. Choose nutrient dense to get the most calorie value
- C. You can't run on empty (i.e. empty calories)
- D. Do right; Eat brith

C.

A. Use "soft" fats to protect your heart
B. Don't harden your heart or arteries
C. This is your life – feed it wisely
D. Moderation is the key
E. Don't get "tipsy" (refers to tip of pyramid)

Question #5:

Interactive activity (flap idea) for general public on web
Take home food pyramid with flaps person can use at home

Flap idea: Food pyramid with "flaps" that can be lifted to reveal nutritional information about that food group. Include visuals pertaining to what you need the group for (i.e. Meat – muscles; Milk – teeth and bones; fruits & vegetables – eyes skin, hair, healing grain – energy

Question #6:

Delivered by FNEP & EFNEP programs
Interactive games (internet, classroom)
Media spots questioning why you are sitting watching tv
If you want to get your groove on, you got to get your move on
Promote message with bumper stickers

Gabel, Jan 21

ITV: August 13, 2004
Input to Proposed Food Guidance System
Southeast Ozark Foothills FNEP Unit

Question #1

We think the pyramid shape is highly recognizable and should be retained. Otherwise we're afraid there will be much confusion.

Question #2

In relation to the importance of both making healthy food choices and physical activity:
" Move it and lose it"
Also any of the proposed slogans with the word "move" in them

Question #3

Advantage of individualized messages: They might be helpful to people with specific health problems.
Disadvantage of individualized messages: It might be difficult to convey all messages related to specific health problems.

Question #4

a. Watch saturated and trans fat content of the food you eat. Balance eating nutrient dense food with physical activity.
b. Eat foods containing whole grains. Eat lean meats and use lowfat dairy products. Eat brightly colored vegetables.
c. A or B above address most of the things to avoid. To address avoiding sodium, they might add: Season food with herbs and spices instead of salt.

Question #5

One key component of effective interactive education tools is that they be accessible to everyone. We are concerned that many people in poorer and more rural areas of the country will not have easy access to a computer to use either the Internet or CD-ROMs.

Question #6

1. The new Food Guidance System and its messages should be delivered by Nutrition Educators of the Family Nutrition Education Programs.
2. By advertisements on television since that is where the majority of people get their information.

Gabel 13 of 21

Proposed Changes – Food Guidance System
ITV – August 13, 2004

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Question #3 – Continued:

- Caution – Nutrition educators do not always know an individual's health profile well enough to individualize food guidance, e.g. vegetarian diets, diabetes, heart disease, religious preferences, etc.
- With individualized guidance, would we be walking a thin line between nutrition education for healthy populations and the need for a registered dietitian because of clinical problems like diabetes?
- The individualized caloric recommendations may be too much information for the general public to handle.

Question #4 – What Core Messages would you use to meet the following behavior changes?

Responses:

Keep caloric intake balanced with energy expenditure to prevent weight gain, promote weight loss, and/or maintain a healthy weight.

Use equations to convey message, for example: Increased physical activity and decreased calories = weight loss.

Use graphics like a scale balancing activity with calories. Could also use a see saw for children.

Focus on nutrients rather than food groups.

Use age sensitive messages.

Include serving sizes.

Promote nutrient dense food choices to increase the intake of vitamins, minerals, fiber and other key nutrients, especially those that are often low in typical diets.

- Eat fruits, vegetables and whole grains.
- Use colors: Color is cool; color me healthy; eat your garden first.
- Mother Nature knows best.
- Back to the basics.
- Eat low on the food chain.
- Size it down, Pump it up, Keep it real – for all three behavior changes.

Note: Ran out of time before getting any responses for behavior change #3 (lower chronic disease risk.

Question #5 – What do you think are the key components of effective interactive education tools?

Responses:

- Motivate consumers to use tools.
- Where can they access tools?– libraries, schools, etc.
- Have CD-ROMs available to check out or buy.
- It's contradictory to have consumers sit in front of computer when we want them to move more – use pop-ups to remind them to get up and move or use chair exercises.
- Keep it simple, current, colorful and fun.

Question #5 – Continued:

- Frisbee, jump rope giveaways – partner with commercial sponsors to provide these.

Question #6 – How should the new Food Guidance System and its messages be delivered?

Responses:

- Nutrition educators.
- Point of purchase like grocery stores, school cafeterias, restaurants.
- Advertising – how do nutrition educators compete with food manufacturers who have lots of money to develop messages? Contracts with universities to design messages.
- Get all commodity groups on board to use the same messages.
- Have Martha Stewart work on designing messages as part of her community service.
- Have all participating partners on the same time line.
- Provide through health care providers.

Gaba 16 of 27

Food Guide Pyramid Input- August 13, 2004 ITV Input SW Region

Question 1:
Like the Pyramid image, consumers really identify it now, include physical activity in graphic, use pyramid, do not put foods in, or use different foods.
Do grains need to be at the bottom of the pyramid?
Keep pyramid shape, add active icons around the pyramid and/or activities inside each group, using degree of calories burned
Pros: recognition and association with FGP
Cons: associated messages that may be changing—less grains, more Fruits and Veggies

Question 2: Slogan
Take the step make the step Take a step toward health
Step up to change
Eat less, play hard
Eat Smart, Play hard
Be right, play hard
Be bright, eat right
Choose Health
Making a change
Time to move and change
can't run on empty
Feel your fullness
Eat outside the box
Move like you eat
Go-Glow-Grow
Don't be dense- eat with sense
Making the move to a healthier you
Time is about change
Move on up to health
Eat to live
Choose for you
Don't "sat" on your fat

Question 3:
Advantages: more info that is applicable to individuals' specific needs, helps people understand that "one size does not fit all"
We all need different amounts due to activity
Disadvantages: more complicated, more info that the consumer has to "wade through" may discourage them from looking- could be confusing
General public is not educated to understand FGP

Question 4:
Are you as healthy as you want to be?
Promote: healthy weight, nutrient dense foods, lower risk of chronic disease

Question 5:
Props, games, costumes, activities, clothing with slogans, visuals-displays
Handouts- few in number-simple, practical
CD-Rom or interactive website—user friendly, use terms understood by all- no jargon

Gabel 17 of 27

Access to a computer- where to
Push to get the website known- advertise it! Partner with commodity groups for advertising the site
Use is school classrooms by teachers, doctor offices/health clinics- in waiting rooms
Need to provide positive feedback to user

Question 6:
Ads- shirts with slogans
Radio- suit song to different music types: adult easy listening, jazz, pop, altenative rock, rap, etc.
Commercials
Teach it- FNEP! Teachers, parents, health care providers
Food packaging
Printed materials- simple messages
Food places- restaurants, cafes, food service- hospitals, schools, colleges, businesses
Fitness- parks, health clubs, fitness trails
Need private dollars to finance

Gabel 18 of 2

Food Guidance Discussion - NW Unit
August 13, 2004 ITV

1. Do we keep or change the Pyramid shape?
I like the pyramid shape – ones you need most of are at the bottom, and what we need least of at top
(From Summer Nutrition class) Canada's symbol is rainbow shape – symbolism of covenant with God; largest piece is still the grains
Physical activity and water need to be included in whatever we end up with – plus the food groups – see Penny's graphic
Saw pyramid but upside-down – grain/big at top and that's where we want to be – goal to move "UP" the pyramid to be the "tops" (one NPA's second-grade daughter pointed this out)
If it's new, people will look at it; on the other hand, if we change the symbol, some will say it's always changing - what's the use of trying to follow it, or what really is right?!
Use measurable quantity instead of "serving" that is not as clear
Graphic: Plate shape – we talk about filling your plate with majority of plate being f&v and breads, that's more realistic, looks more like what I actually will see when I eat
Vision: have pyramid 'swish' into plate – a way to "connect the dots' between the pyramid (past) and plate (realistic) OR have pyramid that has a colored path to a plate with amounts needed from each type of food in the graphic as well
Concern with the graphic not being very user friendly, should be understandable at a glance
Graphic: have a balance (or scale or seesaw type thing) with food on one side and exercise on the other

2. What type of slogan would you use to encourage consumers to make healthy food choices?
Seems like calories is the bottom line in weight management – people know this but forget it when making food choices
Somehow slogan needs to equate that balance between eating and moving
Use the Pyramid (or its replacement) and say "get 'er done – more energy, feel better"
"I move. Don't chew?"
'Eat to live, don't live to eat' (this one from the past had a lot of support in our group)
"Move it and lose it"
The slogan needs to include more than just food.

3. What do you think are the advantages or disadvantages of the pyramid plan to provide a more individualized message as opposed to a generalized message?
Obvious advantage: more tailored to the individual, but disadvantage may be access and cost
Would FNEP teach a general message? We would think so, with a varied audience like ours
Would the symbol/slogan be generalized so it would fit for all? We think it should be.
Accessibility – assuming it's a on web site – could use any public or private computers
For physicians – would info be available for them to use with patients?
This is where particular measurable servings would be advantageous.
For average everyday person using the info would need to include "average, everyday" foods like onions and potatoes, not "recipe" foods like capers (whatever they are!)
Must have goals/suggestions/recommendations) that are attainable and that do not scare folks off

Have opportunity to tell activity of choice, and favorite foods so feedback could include activity level needed in terms of favorite activities and recipes/meal plans that include favorite foods

6. How should the new Food Guidance System and its message be delivered?
FNEP
Make cartoons or Saturday morning/after-school jingles (like "conjunction Junction, what's your function?" that have the nutrition messages
Also see above #5

UNIVERSITY OF MISSOURI
Extension

Fax

To:	Candy Gabel	**From:**	Janet Hackert
Fax:	1-573-884-5449	**Pages:**	2
Phone:		**Date:**	8/19/04
Re:		**CC:**	

Here is a drawing that some drew as a possible symbol that Janet e-mailed you about.

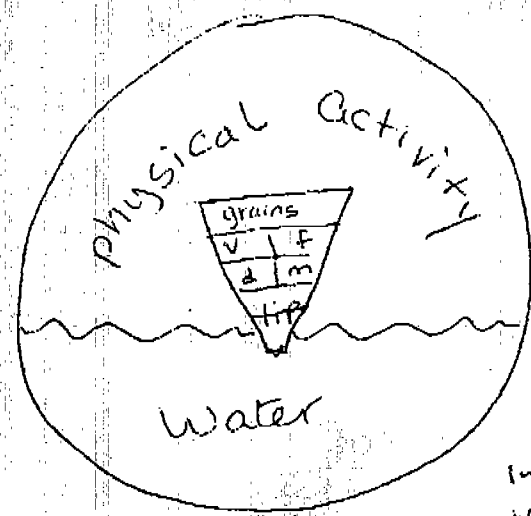
Barb Ubben

Barb Ubben
Office Manager
University Outreach and Extension
1505 Main Street, Court House Basement
Bethany Missouri 64424-1987

8/13/04 Food Guidance discussion

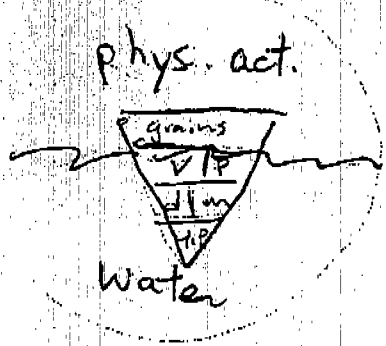
* We wanted water + physical activity to be integrated with what we eat.

Gabel
21 of 21



- Penny

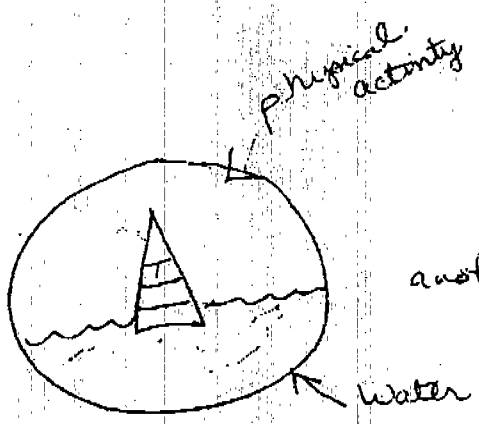
(grains on top, in keeping with idea that more Fr V + grains and less from tip is "Tops", equals 'goal'



Ginny

↑

└ thought the above looked too precarious



another option

The following are recommendations for the FOOD GUIDE PYRAMID Changes & Controversy from the students in the:

Nutrition & Food Science Ed. I class
Tuloso-Midway High School

Corpus Christi, TX

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Theme: **"GROW, GO, and GLOW with HEALTHY FOODS"**
GROW: strong skeletal, muscular, physical body and a mentally sound outlook on life
GO: energy, stamina, stress relievers
GLOW: radiant, healthy skin inside and outside the body Moya 1 of 5

Student Name:	**Recommendations:**
Michelle Moya:	...Attached copy of her idea of the new shape of the pyramid, "The Circle of Life". Unhealthy foods would be the smaller circle. Foods high in salt would also be added into this category. The larger circle would include healthier foods packed with minerals, vitamins, fiber, antioxidants, flavonoids, etc. The circles in the center would radiate from descended order (unhealthy) to healthy foods. This would allow for more detail reading and understanding that the USDA may wish to include.
Wesley Sanders:	..."EAT RIGHT and STAY RIGHT GUIDE" name change. ...More information on transfats. ...Separate healthy, high fiber, whole-wheat cereals from sugary cereals in layman's terms. ...Add categories in terms of foods higher in the following nutrients: water, vitamins, minerals, lipids, carbohydrates, enzymes, etc. and show how to enhance these into our diets if necessary. You may need a disclaimer stating that excesses of vitamins "A" and "D", for example, may be toxic to the body, especially the liver.
Sasha Cantu:	...BE BRIGHT – EAT RIGHT name change. ...Separate Bread & Cereal category into 1.) Healthy & 2.) Unhealthy. Increase the servings in the Healthy (high fiber, low-fat, nutrient-packed) category and decrease the servings in the "junk" (refined, sugary, starchy) category. ...Increase the servings of vegetables to "5-6" servings with emphasis on eating veggies the color of the rainbow: purples, greens, red/oranges, etc.
Ryan Bates:	...Lower the amount of servings of cheeses especially those that are processed with excessive additives and fat. ...Separate the "low-fat" dairy products from the "high-fat" dairy products.
Ashley de la Cerda:	...Separate processed cereals (sugary) from "dry", "cooked" healthier cereals. ...Include more servings of ethic-type fruits, such as, papaya, mango, star fruit, guavas, passion fruit, pomegranates, berries, etc.

postmarked 8/26/04

Moya dofs

Breeanna Kemper: ...Identify servings in terms of cups, number (12 fries = 3 oz.) or by weight: ounces, tablespoons, or metric.
...Include an exercise (**MOVE to IMPROVE**) component. This should be the MOST IMPORTANT, largest area.
...Include a fluid intake component: water.
...Add suggestions to balance our healthy eating lifestyle with sleep
...Include methods of preparation: Steamed potatoes are healthier than a baked potato saturated with butter, cheese, sour cream, bacons bits or fried potatoes.

Pedro Farela: ...Add exercise to the pyramid to demonstrate the need to burn fat, tone muscles, strengthen the skeletal system, and provide a strong mental outlook on life.

Ex: **Exercise: walking, biking, basketball, rollerblading, etc:**

Burn fat and calories
Strengthen immune system
Sleep sounder
Boost metabolism
Increase endurance and tolerance
Increase mental alertness
Tone muscles (less marbling); strength and flexibility; less accidents
Strengthen bones
Sense of well-being; positive outlook on life
Better utilizationof oxygen
Relieve stress
Control appetite
Lower cholesterol build up; cleaner "piping"
Prevent diabetes

...Place sugary cereals into the "Fats, Oils, and Sweets (Use Sparingly) category.
...Keep the new Food Pyramid in the simple form and produce a second, more detailed Food Pyramid with attachments.

Laura Ramos: ...Show servings in terms of cups and ounces.
...Identify healthy grains in bread.

Angela Gonzales: ...Change HEALTHY GUIDE PYRAMID to HEALTHY LIFESTYLES.
...Information on label reading.
...It would be helpful to identify brand names that are healthy and those that not as healthy.
...Chart on calories that people should ingest by sex, height, weight, and age.

Moya 3of5

Crystal Clawson: ...HEALTHY FOODS, HEALTH HEART and BODY
...Separate Food Chart in terms of Nutrients: Carbs, Lipids, Proteins, Vitamins, Minerals, Trace elements, Water, Enzymes, etc.
...Cereals in the "Bread & Cereal" Group is a source of confusion to many especially when the sugary ones are advertising themselves as nutritious only when one adds milk. Most neglect to mention in front of the box, the excessive amounts of sugar, additives, and refined products that can only be found in the fine print on the back of the box.
...Identify saturated, unsaturated, polyunsaturated and transfats.

Alain Martinez: ...Lower the amount of bread and cereal intake for those that are inactive. In other words, place activity in the lower, larger brace of exercise allowing more carbs to be ingested while inactive people: recommendation – 2 servings per day.
...Increase servings of both fruits and vegetables to 5-7 servings.
...Separate by color of plant or by **plant part (seeds, root, stem/stock, leaves, flowers, fruits)** based on what is most nutritious, fiberous, starchy, etc.

Levi Bernal: ...Add more servings to the fruit and vegetable groups.
...Move junky, sugary cereals into the "Fats, Oils, and Sweets (Use Sparingly) category.
...Some of the energy bars belong in the same category listed above.
...The food diagram should stay the same in form. It is simple to read.

Raymond Alaniz: **...Separate the "FATS, OILS, and SWEETS" into their own category.** Sweets should show foods such as, soft drinks, Jell-O desserts, candy, pastries (donuts, honey buns, store-brought muffins), junk cereals, low-fat ice creams that are high in sugars, "new vogue coffees and lattes", energy bars, whip creams, juices that are really water, flavoring, dyes, and sugar, etc. Many of these also qualify into the excessive FAT category.
...Maybe a category labeled "FATS & SWEETS" showing fats on one end, sugars on the other end, and foods that *overlaps* in the mid-section with an *ellipse encircling* both.
...Identify rice in terms of brown, wild, white, or multi-grained.

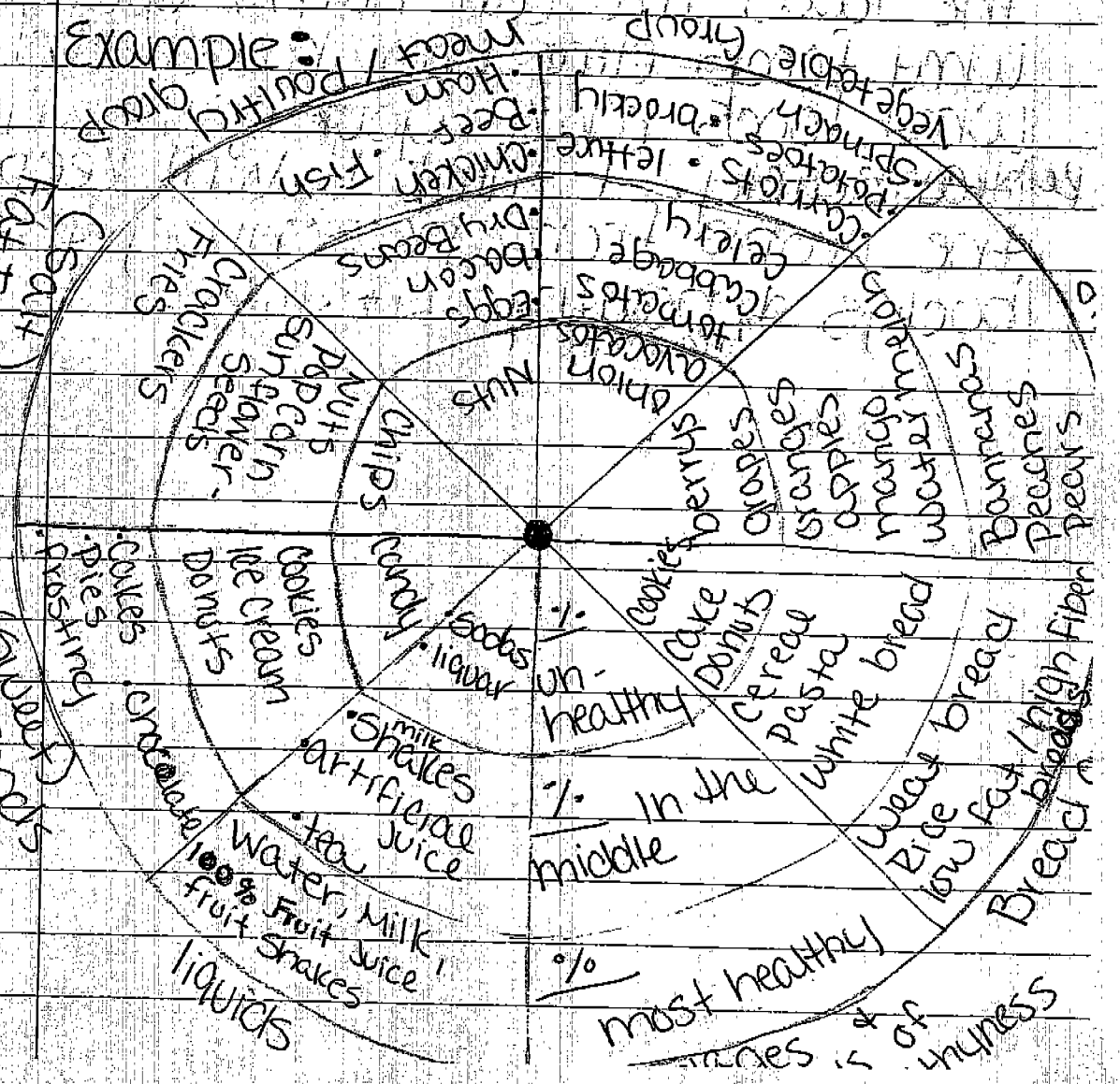
Jennifer Coronado: ...Separate low-fat from high-fat dairy products.
...Decrease amount or milk and milk products for inactive teens to 2-3 cups rather than servings.
...Some cheese products may need to be moved to the FAT category.
...Increase fruit servings to 6-9 with emphasis on eating raw and not processed. Example: Eating a blue-berry pop-tart is not equivalent in nutritional value as eating fresh blueberries.

Elizabeth Fernandez: ...Add homemade "*caldos* or *soupas*" that are made with no fat and fresh Vegetables, such as, garlic, onion, celery, carrots, corn and broth into the Vegetable Group.
...Add "*liquidos*" or drinks made of fresh fruits, water, no sugars nor creams into the fruit group.
...Separate canned, prepared vegetables from fresh vegetables.

Moya Yors
Michelle Moya
Tuloso-Midway
Corpus Christi, T
Nutrition + Food Science

One of my recommendations would be to make the Food Guide more understandable. Changing the Shap and placing the foods in levels le fat to most fat or from least sug most sugar or maybe from less healthy to most healthy

Example:



Moya 5 of 5

The key only shows the fats and the sugars. I think they should ad salt, because salt is in alot of th foods and I think people should know how much salt they consu

I think they should make a list o the foods that can harm your b what foods clear your mind and what foods make your gain wei quicker ~~dramadicly~~. I think it will keep the people from poisoning the body's & maintain healthy Lifestyles.

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Jim Tibbetts
Living Foods Technology
Scarborough, Maine

home of the web magazine:
Just Eat An Apple
www.justeatanapple.com

July 25, 2004

Tibbetts

The Food Guide Pyramid Reassessment Team
USDA Center for Nutrition Policy and Promotion
3101 Park Center Drive Room #1034
Alexandria, VA 22302

Dear Director Food Guide:

Grace and Peace. I would like to give some comments about the Food Guide Pyramid Reassessment, to their team.

The scientific research has shown for the last 20 years that the protein needs for most humans are between 30 to 36 grams for the average 150 pound man. The NIH back in 1979 showed that the research proved a man only needed 36 grams, but in 1981 they bumped it up to 44 grams and later to 54 grams after the beef industry influenced them (and made an additional 3 billion dollars a year with that increase.)

Independent studies showed the need for 35 grams and European studies showed the need for only 30 grams. The healthiest and oldest lived people in the world are the Hunza's in the mountains of Pakastan and they only eat about 30 grams. They and other long lived cultures only eat mostly milk and cheeze, less then 1% animal protein.

So all of this evidence and more shows clearly that man only needs 30 to 36 grams, but the average American eats 80 to a 120 grams a day. We Americans eat 3 to 4 times the amount of protein that is needed according to the scientific studies. Even if you take the NIH's figures Americans are still eating 2 to 3 times the amount of protein that they need.

For many years Pediatricians have tried to get mothers to keep infants off Cow's milk even asking the dairy to put a notice on the containers, which they will not do. Cow's milk is not even good for adults, and the pasteurization process starts to denature the protein and destroys all water soluble vitamins in milk. There are dozens of studies and reports in medical and scientific journals showing this. Leafy green vegetables are the best place for Calcium!

When the first food pyramid was about to be released, milk was not included on it, and the milk industry objected and went to Congress who forced the USDA Center for Nutrition

postmarked 8/27/04

Tibbetts

Policy and Promotion to put milk on the food pyramid so that the milk industry does not lose business. Is this not true? You even had the pyramid printed up!

If it is true then maybe the USDA Nutrition committee for the pyramid should tell the public the truth and take milk off the food pyramid, regardless of what the politics are involved, your job is to inform the public of the truth, not political pressures.

The same thing holds true for the meat industry, political pressures are trying to influence you to increase the protein needed for Americans. That's because they make an extra couple of billion dollars on an increase in your advertising higher protein needs then are necessary.

I hope the Food Pyramid Committee has enough integrity to speak the truth regardless of what the Beef Industry says, or the Dairy Industry says or the Congress and political influence says to you as a committee. You are scientists committed to the truth and integrity!

Enclosed are several chapters from one of my books (Superior Health A-Z with Living Foods) on these topics, which gives some of the facts and the data and scientific studies and citations. These chapters are to give the documented citations of meat and dairy studies confirming what I'm trying to say here.

The five a day program for fruits and vegetables has gone up to 9 a day and even more. The emphasis on a predominately vegetarian diet is becoming stronger and stronger as the scientific evidence shows that a vegetarian diet is superior over a meat based diet!

I too am involved in a committee: The Vegan Scientific Committee for Space Travel. We are trying to show NASA that a Vegetarian diet is superior for space travel then a meat based diet. They sort of know this already but need to be convinced since they are all meat eaters! I have about 20 or so of the best vegetarian and vegan PhD's and MD's in the country on this committee. We would be very happy to work with the USDA committee to put together a Vegetarian Pyramid Food Guide. Or if you need more evidence or help in restructuring your present meat based food guide and the protein issue, we could help with that too.

About 15 million people in the U.S. population are vegetarian, which is a lot, and the number is growing. So if the USDA is interested in coming out with a Vegetarian Food Guide Pyramid, please let us know. You really do need vegetarians and vegans on such a committee.

Thanks for your time.

Sincerely

Jim Tibbetts

Jim Tibbetts

B - Beef

The medical journal Lancet reports: "Formerly, vegetable proteins were classified as second-class, and regarded as inferior to first-class proteins of animal origin, but this distinction has now been generally discarded."[1] The Food and Nutrition Board of the National Academy of Sciences notes: "Pure vegetarians from many populations of the world have maintained... excellent health."[2]

About half of the 31 million pounds of antibiotics produced every year in the U.S. goes into animal feed to make them fatter. "Because of health concerns over antibiotic-resistant bacteria, several European countries banned the use of antibiotics in animal feed in the 1970's. Our government is still dragging its feet due to money, power and politics."[3]

Not only the food the animal eats affects us but studies have shown that stress on the animal causes biochemical changes: "This metabolic responsiveness to stress alters its composition and thus can not fail to affect its nature as meat." Thus we become part of what we eat including the stress.[4]

Studies are consistently showing that high protein consumption also means higher rates of cancer development. "T. Colin Campbell, a Professor of Nutritional Sciences at Cornell University and the senior science advisor to the American Institute for Cancer Research, says there is 'a strong correlation between dietary protein intake and cancer of the breast, prostate, pancreas and colon.'" Likewise, Myron Winick, director of Columbia University's Institute of Human Nutrition, has found strong evidence of "a relationship between high-protein diets and cancer of the colon.' In *Your Health, Your Choice*, Dr. Morter writes, "The paradox of protein is that it is not only essential but also potentially health-destroying.

Adequate amounts are vital keeping your cells hale and hearty and on the job; but unrelenting consumption of excess dietary protein congests your cells and forces the pH of your life-sustaining fluids down to cell-stifling, disease-producing levels. Cells overburdened with protein become toxic."[5]

Two journal studies showed that excess protein can cause a fluid imbalance and result in kidney damage. "The liver and kidneys are the organs called upon to change excess protein, and too much work puts a strain on them. Because of this extra work the body heat level is raised and the fluid balance is upset. A continued excess may result in damage to the kidneys."[6]

"About 75 percent of the ninety million beef cattle in America are routinely given feed that has been 'enriched' with rendered animal parts. The use of animal excrement in feed is common as well, as livestock operators have found it to be an efficient way of disposing of a portion of the 1.6 million tons of livestock wastes generated annually by their industry. If you are a meat-eater, understand that this is the food of your food."[7]

Mad Cow disease or 'BSE' or CJD the human equivalent (which turns the brain to mush) is because of animals eating other animals put in their feed. The disease has been found in 20 different animals and 12 or more countries. The disease is impervious to high temperatures (680 degrees F), drying and freezing, most disinfectants, and radiation.[8] The incubation period takes two to eight years in a cow before the cow shows any signs of having it.[9] CJD is very similar to Alzheimer's[10] and one report found 50 out of 66 Alzheimer's patients with CJD.[11] Like HIV it can be transmitted through milk.[12] These diseases are fatal, and found in meats.

The early Jewish Scriptures and lifestyle emphasized

kindness to animals: "And you shall walk in His ways." Deut 28.9 "Thou shall not kill." Ex 20.13 "His (Yahweh's) compassion is over all His creatures." Ps 145.9 *Extra*[13]

Endnotes

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1. Robbins, J., Diet for a New America, p. 183, citing: Editorial, *The Lancet*, London, 2:956, 1959.

2. Robbins, J., Diet..., p. 184, citing: Food and Nutrition Board, "Vegetarian Diets," Washington, D.C.,. National Academy of Science, 1974, p. 2.

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4. Briskey, E.J., et al, The Physiology and Biochemistry of Muscle as Food, (The University of Wisconsin Press, Madison Wisconsin); 1966, p. 157.

5. Malkmus, God's Way to Ultimate Health, Hallelujah Acres Pub. Eidson, TN, 1995, p. 126.

6. Woolsey, Meat on the Menu: Who Needs It?, Review and Herald Pub., 1974, p. 58. Citing: Margaret Doyle, et al., "Observations on Nitrogen and Energy Balance in Young Men Consuming Vegetarian Diets," *American Journal of Clinical Nutrition*, vol. 17 (December, 1965). Newton Evans and E.H. Riley, "High Protein Ration as a Cause of Nephritis," *California and Western Medicine*, April, 1925.

7. Lyman, Howard F., Glen Merzer, Mad Cowboy Plain Truth

from the Cattle Rancher who won't Eat Meat, Scribner, New York, N.Y., 1998; p. 13.

8. Nedley, Neil, M.D., Proof Postive: How to Reliably Combat Disease and Achieve Optimal Health through Nutrition and Lifestyle, p. 211, citing: Brown P. Liberski PP. et al. Resistance of scrapie infectivity to steam autoclaving after formaldehyde fixation and limited survival after ashing at 360 degrees C: practical and theoretical implications. *J Infect Dis* 1990 Mar;161(3):467-472. Freezing - World Health Organization Fact sheet: Bovine Spongiform Encephalopathy (BSE); Fact sheet N113; March 1996.

9. Nedley, Neil, M.D., Proof Positive:, p. 215, citing: Pratt K. Bovine Spongiform Encephalopathy. Update. Animal and Plant Health Inspection Services (APHIS). U.S. Department of Agriculture, 1996 p. 1.

10. Nedley, Neil, M.D., Proof Positive:, p. 215, citing: Barcikowska M, Kwiecinski H, et al. Creutzfeldt-Jakob disease with Alzheimer-type A beta-reactive amyloid plaques. *Histopathology* 1995 Mary;26(5):445-50.

11. Nedley, Neil, M.D., Proof Positive:, p. 215, citing: Smith TW, Anwer U, et al. Vacuolar change in Alzheimer's disease. *Arch Neurol* 1987 Dec;44(12):1225-1228.

12. Nedley, Neil, M.D., Proof Positive:, p. 215, citing: US Dept. of Health and Human Services. Managing Early HIV Infection Quick Reference

Guide for Clinicians: Number 7.. AHCPR Publication No.94-0573, January 1994 p.14. Tamai Y. Kojima H, et al. Demonstration of the transmissible agent in tissue from a

pregnant woman with Creutzfeldt-Jokob disease. *N Eng J Med* 1992 Aug 27:327(9):649.

13. **Extra: B - Beef** "As the sun dawns across North America every morning, the wave of slaughter begins. Each day in the United States nine million chickens, turkeys, pigs, calves and cows meet their deaths at human hands. In the time it takes you to have your lunch, the number of animals killed is equal to the entire population of San Francisco. In our 'civilized' society, the slaughter of innocent animals is not only an accepted practice, it is an established ritual. We do not usually see ourselves as members of a flesh-eating cult. But all the signs of a cult are there." (Robbins, J., Diet for a New America, p. 134)

29. Additional Dangers of Meat

a. Dangers of Excess Protein

Animal protein deteriorates in heating and cooking. When animal protein is heated to 212 degrees, or over 120. It deteriorates into polyscraides which are carcinagines. And then to much protein residue also feeds cancer cells.

"It is important to recall that current experiments suggest that excess protein can be damaging to the kidneys. [1] Researchers also feel that high-protein diets may well contribute to the decline in kidney function that occurs as one grows older and that has been attributed to normal aging.

"Other studies suggest that diets high in animal protein increase one's risk of kidney stones [2] and gallstones. [3] Moreover, the extra ammonia that results from the breakdown of excess protein has even been thought to hasten cell proliferation and to contribute to the development of malignant growths." [4]

"Dr. C. L. Elvehjem in 'Amino Acid Supplementation of Cereal' warns that twice the daily requirement of certain amino acids in food leads to toxic cell disturbance. (a) Dr. Bieler states that one of the main sources of over acidity in the body is an excess of amino acids which disturbs the nitrogen balance. (b)" [5]

"The short term beneficial effects of a high protein diet can be attributed to the following factors. Most people are protein starved. The cells are deficient in protein because the whole interior of the individual from the digestive tract to the finest capillary, as well as cell walls, are coated with extraneous mucus, hardened fats and layers of inorganic mineral deposits with interfere with the transport of amino acids into the interior

of the cells.

"The long term effect of a high protein diet is always bad. It leads to an accumulation of the waste products of protein metabolism, thus acidifying the body. For example, the human liver and kidneys combined have a limited capacity to excrete only about 8 grains of uric acid in 24 hours. However, one pound of meat can generate as much as 18 grains of uric acid. Hence, some uric acid will be left in the body from any one meat meal which will accumulate to produce the disease of gout, rheumatism or the complications of arthritis." [6]

The National Dairy Council keeps promoting that dairy products builds stronger bones but the research shows the contrary. "Osteoporosis is, in fact, a disease caused by a number of things, the most important of which is excess dietary protein! The correspondence between excess protein intake on bone resorption is direct and consistent, even with very high calcium intakes, the more excess protein in the diet the greater the incidence of negative calcium balance, and the greater the loss of calcium from the bones." [7]

"One long-term study found that with as little as 75 grams of daily protein (less than three-quarters of what the average meat-eating American consumes) more calcium is lost in the urine than is absorbed by the body from the diet - a negative calcium balance. In every study the same correspondence was found: the more protein that is taken in, the more calcium that is lost. This is true even if the dietary calcium intake is as high as 1400 milligrams per day, far higher than the standard American diet." [8]

"In other words, the more protein in our diet, the more calcium we lose, regardless of how much calcium we take in.

The result is that high-protein diets in general, and meat-based diets in particular, lead to a gradual but inexorable decrease in bone density, and produce the ongoing development of osteoporosis." [9] This has been reported in numerous articles in the Journal of Nutrition and other sources.

Dr. John McDougall, a leading medical authority, summarizes the medical research on osteoporosis: "I would like to emphasize that the calcium-losing effect of protein on the human body is not an area of controversy in scientific circles. The many studies performed during the past 55 years consistently show that the most important dietary change that we can make if we want to create a positive calcium balance that will keep our bones solid is to decrease the amount of proteins we eat each day. The important change is not to increase the amount of calcium we take in." [10]

"Throughout the world, the incidence of osteoporosis correlates directly with protein intake. In any given population, the greater the intake of protein, the more common and more severe will be the osteoporosis. In fact, the world health statistics show that osteoporosis is most common in exactly those countries where dairy products are consumed in the largest quantities - the United States, Finland, Sweden, and the United Kingdom." [11]

"Carbohydrates are the most important source of food and energy in the world. The FAO/WHO (Food and Agricultural Organization of the United Nations/World Health Organization) suggests that the diet consists of at least 55% carbohydrates. Government and health organizations from around the world concur. The reason is simple. Populations consuming animal-centered diets, rich in fat and protein and low in carbohydrates, have high rates of heart disease, cancer, diabetes, obesity, and other chronic diseases. By contrast, those

consuming plant-based diets, rich in carbohydrates, have significantly lower rates of disease.

The book, Mad Cowboy is by Howard Lyman. He is a fourth-generation dairy farmer and cattle rancher in Montana who ran a feedlot operation for twenty years. "When a cow is slaughtered, about half of its weight is not eaten by humans; the intestines and their contents, the head, hooves and horns, as well as, bones and blood. These are dumped into giant grinders at rendering plants, as are the entire bodies of cows and other farm animals known to be diseased. Rendering is a $2.4-billion-a-year industry, processing forty billion pounds of dead animals a year. There is no such thing in America as an animal that is too ravaged by disease, too cancerous, or too putrid to be welcomed by the all embracing arms of the renderer. Another staple of the renderer's diet, in addition to farm animals, is euthanized pets - the six or seven million dogs and cats that are killed in animal shelters every year. The city of Los Angeles alone, for example, sends some two hundred tons of euthanized cats and dogs to a rendering plant every month. Added to the blend are the euthanized catch of animal control agencies, and roadkill. (Roadkill is not collected daily, and in the summer, the better roadkill collection crews can generally smell it before they can see it.) When this gruesome mix is ground and steam-cooked, the lighter, fatty material floating to the top gets refined for use in such products as cosmetics, lubricants, soaps, candles, and waxes. The heavier protein material is dried and pulverized into a brown powder - about a quarter of which consists of fecal material. The powder is used as an additive to almost all pet food as well as to livestock feed. Farmers call it 'protein concentrates'. In 1995, five million tons of processed slaughterhouse leftovers were sold for animal feed in the United States. I used to feed tons of the stuff to my own livestock. It never concerned me that I was feeding cattle to cattle." [12]

The author (Tibbetts) knows of a woman whose father died in 2000 of mad cow disease in the U.S. He is said to have been one of several in this small mid-western town to have died

of this disease but the industry and government just say that it's an odd occurrence. These events are being covered up.

Herbert Shelton, one of the founders of the Living Foods movement, has some good comments on meat eating. "There was an Australian aborigine who justified his act of killing and roasting his wife by saying: 'she tasted good.' The cannibal goes out and hunts, pursues and kills another man and proceeds to cook and eat him precisely as he would any other game. There is not a single argument nor a single fact that can be offered in favor of flesh eating that cannot be offered, with equal strength in favor of cannibalism."

"It is a curious fact that, while flesh-eaters insist that flesh-food is a source of strength superior to plant-foods, they continue to confine themselves largely to muscle-flesh and this is definitely a deficient food. Not only is it deficient, originally, but by the time the cooks have boiled, broiled, baked, fried and otherwise 'prepared' it, it is even more deficient. It is deficient, both from its losses in cooking and from its changes while in storage. It is replete with putrefactive poisons as well as with normal metabolic waste that was held up in the tissues of the animal at the time of death." [13]

b. A List of Some Problems and Dangers of Excess Protein:

1. Surplus protein ends up being stored as fat. Both meat and cheese have much more fat then protein in them.
2. Animal protein usually contains excess fat and excess cholesterol, these increase the risk of chronic diseases such as: arthritis, diabetes, cancer.
3. "According to a report by the National Research

Council, fat is not the only thing that promotes tumor growth. At the very least, the cancer-stimulating effects of excess fat and protein may turn out to reinforce each other." [14]

4. "Researchers have shown that even purified animal protein, devoid of cholesterol, when substituted for vegetable protein, is associated with a significant rise in serum cholesterol." [15]

5. Protein breaks down into ammonia and urea both of which are possible toxic nitrogen by-products. Ammonia is carcinogenic and urea promotes arthritis.

6. The sulfur by-product needs alkaline reserves to neutralize it, yet most people's SAD diets, are acidic.

7. Bone minerals, calcium and magnesium are used to neutralize sulfur causing a loss of these bone minerals, and possibly causing osteoporosis. [16]

8. "One study showed that even a daily 2,300-milligram supplement of calcium could not compensate for the mineral-robbing effects of excess protein, [17] and many other studies have documented the adverse effects of excessive protein intake on calcium loss as well. [18]

9. Amyloid deposits cause degenerative changes, a shorter lifespan and premature aging from excess protein.

10. Cooking meat creates mutagens which alters the DNA of a cell increasing the risk of cancer and other degenerative diseases.

11. Research suggests that excess protein can be damaging to the kidneys and that high-protein diets may well contribute to the decline in kidney function that occurs as one grows older, usually this is attributed to old age.

12. Other studies suggest that diets high in animal protein increase one's risk of kidney stones and gallstones.

13. The world's food reserves are used up faster by those who eat excess protein since meat protein takes far more food reserves then does vegetable proteins.

14. Meat stirs up lust, anger, greed and other negative

passions of the soul, which increases violence, rape and murder.

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M - Milk is for Cows

Cows milk is for Cows. It helps them grow to 1,500 lbs.!

Dr. Frank A. Oski, M.D. Director, Department of Pediatrics, John Hopkins School of Medicine states: "It is estimated that half the iron-deficiency in infants in the United States is primarily a result of cow's milk inducing gastrointestinal bleeding. This is a staggering figure when one realizes that approximately 15 to 20 percent of all children under the age of two in this country suffer from iron-deficiency anemia. The resultant iron-deficiency anemia makes the child irritable, apathetic, and inattentive. The infant cries a great deal, the mother gives a bottle of milk to soothe him, and the condition continues to get worse.[1]

"Diarrhea and cramps, gastrointestinal bleeding, iron-deficiency anemia, skin rashes, atherosclerosis, and acne. These are disorders that have been linked to the drinking of whole cow milk. So have recurrent ear infections and bronchitis. Yes. Leukemia, multiple sclerosis, rheumatoid arthritis, and simple dental decay have also been proposed. In one study on multiple sclerosis in the United States, they also studied twenty one other nations and the only significant link was between multiple sclerosis and average milk consumption."[2]

Another study found an apparent relationship between heavy milk drinking and anti-social behavior. "It was found that the juvenile delinquents consumed almost ten times the amount of milk that was drunk by the control group. Possibly the consumption of large quantities of milk produced some form of 'protein intoxication' that resulted in crime. 'Who knows what evil lurks in the minds (or stomachs) of men?' "[3] Dr. H.L. Newbold, a psychiatrist, has identified many patients in his practice whose insomnia, anxiety, or depression has been

produced by foods. The food most responsible for the symptoms in both adults and children is whole cow milk." [4]

In Robert Cohen's book, *Milk A-Z*. The book shows how milk can be the cause of: allergies; breast cancer; Crohn's disease; diabetes; ear infections; fat; growth hormones; heart disease; iron deficiency; juvenile illnesses; killer bacteria; lactose intolerance; mad cow disease; nasal congestion; osteoporosis; pesticide intake; rheumatoid arthritis; sudden infant death; tuberculosis; uterine cancer; vitamin D problems; and zits.

"Studies have suggested that bovine serum albumin is the milk protein responsible for the onset of diabetes." [5] "These new studies, and more then 20 well-documented previous ones, have prompted one researcher to say the link between milk and juvenile diabetes is 'very solid'." *Diabetes Care* [6]

Lactose is a milk sugar and most adults lack the enzyme, lactase which breaks down lactose. "An estimated 50 million Americans experience intestinal discomfort after consuming dairy products. Symptoms include bloating, stomach pain, cramps, gas, or diarrhea." *Postgraduate Medicine* [7]
In the countries where dairy products are consumed the greatest (United States, Finland, Sweden and the United Kingdom) osteoporosis is found to be most common. [8]

"Preference for a diet high in animal fat could be a pathogenic factor, and milk and high fat dairy products contribute considerably to dietary fat intake." *Journal of the American College of Nutrition* [9] "Milk and milk products gave the highest correlation coefficient to heart disease, while sugar, animal proteins and animal fats came in second, third

and fourth, respectively." [10] *Medical Hypothesis* - Survey of mortality rates in 24 countries. *Extra*[11]

There is the prohibition against eating dairy products with red meat in Scripture: Ex 23.19, 34.26; Deut 14.21. Also, whole milk has fat; "Say to the Israelites: Do not eat of any of the fat of cattle, sheep or goats." Lev 7:23

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11. **Extra: M - Milk is for Cows** - Dr. Robert Young PhD. points out, "The idea that dairy products are healthy is pure hype and a cultural myth. While cheese is a product of fermentation, dairy foods also contain residues of hormones and fungally based antibiotics, as well as yeast, fungus, mold, and mycotoxins (cows are fed stored grains). Dairy is also the leader of all foods in being mucoid-forming. It just gums you up. In addition, milk and especially cheese contain lactose (milk sugar). Eight ounces of milk have approximately twelve grams of lactose that can break down into yeast, fungus - feeding sugars. If all that isn't enough, pasteurization (based on the fast germ theory) destroys any enzymes that might be

there to begin with, and makes the milk "sick". Sick milk will rot and stink if left out, proving that

pasteurization doesn't even work (can't kill microzymas), whereas raw milk will curdle naturally, and is still 'edible.' Last but not least, dairy is highly acid-forming. Add the influence of a variety of refined sugars to the above, and you've got a real winner: ice cream." Young, Robert, O., *Sick and Tired*, p. 90-91

P - Poultry Plus?

Animals are given antibiotic-laced feeds to help make them fatter and not just because they may be sick. About half of the 31 million pounds of antibiotics produced every year in the U.S. goes into animal feed. About 80% of the poultry and 75% of the pigs get antibiotics to make them bigger. "Because of health concerns over antibiotic-resistant bacteria, several European countries banned the use of antibiotics in animal feed in the 1970's. Our government is still dragging its feet due to money, power and politics, not science! Besides penicillin and tetracycline in meat, you also can get nitrofurazone (and other nitrofurans), and sulfamethazine (along with other sulfa drugs). These can increase the risk of cancer." [1]

Of the major types of disease-causing bacteria and parasites found in food, nearly all have been found in meat or poultry. "Poultry in America is commonly contaminated with salmonella. The USDA says that about one-third of raw chickens are contaminated with salmonella. But some unbiased experts say 50 to 90 percent of poultry leaving the plant are contaminated. In 1990, the University of Wisconsin screened over 2,300 laying hens from three flocks. They found only eight birds that were not infected with campylobacter, another "bug" that causes food poisoning." [2]

"Poultry seems particularly prone to contamination with campylobacters; 80% of chickens and 90% of turkeys carried through a typical slaughterhouse produced positive cultures for it. [3] Complete cooking can kill most of these microbes and bacteria that are found in poultry. But campylobacters survive freezing and "chicken that appears pink and underdone is the most likely source of infection." [4] Thus sandwiches and salads that have chicken and turkey meat without being cooked properly should be avoided.

Inspectors inspect chickens at a rate of one every two seconds or so, as they speed by the inspectors on hooks. But these inspections do not detect bacterial, antibiotic or other chemicals or toxin contamination. The USDA only uses tests that detect about 40 of the 227 different pesticides used on meat.

"Before 1950, antibiotics were not used but today chickens have a steady supply of sulfa drugs, hormones, antibiotics and nitrofurans. Veterinary drugs are used on every food-producing animal and many of these thousands of new drugs have not been tested. Over 90% of the chickens today are fed arsenic compounds." [5] One of the dyes injected into chickens is used so that their meat and yolks will appear to be a "healthy looking" yellow.

"You may wonder whether you'd be better off eating turkey. Sorry, but the methods applied to the factory production of poultry and eggs are also applied to other birds, such as turkeys, geese and ducks. All these birds are treated with equal disdain for their natural urges and needs, and equal fixation on using them for profit. They are debeaked, stuffed in wire cages, and fed the same sort of unnatural diet as chickens, complete with chemicals, drugs, and antibiotics." [6] *Extra*[7]

The meat of poultry is the same muscle fiber as the meat of beef and has the same acidity. Stay away from beef but if for some reason you have to eat poultry, eat organic poultry, free range, which does not have these hormones and chemicals.

"Brothers, I do not think of myself as having reached the finish line. I give no thought to what lies behind but push on to what is ahead. My entire attention is on the finish line as I run toward the prize to which God calls me - life on high in Christ Jesus. All of us who are spiritually mature must have this

attitude." Phil 3.13-15

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7. **Extra: P - Poultry Plus?** Until 20 years ago, meat was a largely uncontaminated product. Few chemicals found their way into the chops, steaks and roasts you put on your table. But

today, one of the fastest-growing - and most potentially dangerous - developments in agriculture is the use of a host of new chemicals in feed, livestock medication and meat processing. A recent headline points up the new trend: 'Livestock Thrive on Chemical Diet.' Like a whirlwind, chemical feeding is taking over. The animals and poultry we eat have become as chemicalized as the plant products now on the market.

O - Optimum Health

Optimum Superior health come primarily from a superior or optimum dietary lifestyle! Exercise, rest and other factors like stress are important but the key is your diet. In the long run, it is diet that determines superior and optimum health!

The average life expectancy in Hunza is between 85 and 90 years old and many live to be a healthy 110 to 125. "The longest-lived populations in the world are accepted generally to be the people of Hunza in northern Pakistan, Vilcabamba in Ecuador, and Georgia in Russia. An analysis of these people's living habits carried out under the auspices of the National Geographic in 1971 by Dr. Alexander Leaf [chief of medical services at Massachusetts General Hospital in Boston] provided a good reason why they outlived people of the Western world. The traditional diets of these long-lived (by our standards) people contained only half to two thirds the calories of the average American intake, about a quarter the amount of fat and half the protein. Their carbohydrate intake was about the same but was unprocessed instead of processed. As well, these people got more outdoor exercise and were less subject to stress than Americans." [1]

Extra [2]

"In Abkhazia, Dr. Leaf met a 130-year old woman still very active, in Hunza, he found a 110-year old man who did a full day's work in the fields. In Vilcabamba, he interviewed a 123-year old man who had retired as a hunter 50 years ago, and now was actively engaged in farming. The factors mostly responsible for their long life are: 1) their total low-calorie diet, an average of 1900 calories a day, and 2) their predominantly vegetarian diet (only 1 percent of their protein intake come from animal sources). Dr. Leaf says: 'I returned from my travels convinced that vigorous, active old age, free from debility and senility, is possible.' " [3]

"The healthiest people in Latin America, with the longest life expectancy, are the Yucatan Indians, who never eat meat. Vilcabamba inhabitants in Ecuador show the largest number of centenarians of any place in the world - 1098 for every 100,000 people! According to Dr. Alexander Leaf, M.D., their average protein intake is 35-38 grams a day, and the total caloric intake is only 1200 to 1360 a day. They are almost 100 percent vegetarians." [4] This superior health is also enjoyed by world class athletes whose diets are partially or totally vegetarian.

About 70% of our energy goes into digesting food. Raw Fooders sleep an average of 2 to 3 hours less than they were accustomed to, that is 14 to 21 hours a week saved! Long term raw fooders, over ten years, usually need only 3 to 5 hours sleep. Most people on Living foods claim they have more energy, endurance and alertness, and they have little to no body odor. In addition most people into living/raw foods get bitten by mosquitoes very seldom or not at all! Extra [5]

Many other claims of superior health could be made, especially the lack of illness and degenerative diseases: vegans have 77% less degenerative diseases than the average American and vegetarians have 55% less. Raw/Live Fooders have even less illness and disease because they don't cook the food, thereby destroying the enzymes, as well as many vitamins and nutrients. Most raw fooders never get seriously sick.

The strongest animal in the world, pound for pound, is the gorilla. He is a raw vegetarian! All the biggest and strongest animals - the elephant, the buffalo, the horse, etc. are raw vegetarians. Animals in the wild do not cook their food and most won't eat man's cooked foods, which makes them sick.

"Do not conform yourselves to this age but be transformed by the renewal of your mind, so that you may judge what is God's will, what is good, pleasing and perfect." Rom 12:2

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2. **Extra: - Optimum Health** - Dr. Jay Hoffman and his wife visited the Hunza's to do research on them under the auspices of the National Geriatric Society. In his book he answers several questions about the Hunza people.

Q. What is the age of the oldest person in Hunza land? A. Some of the men in Hunza are 120 and over. However, there have been isolated cases where men lived as long as 140 years.

Q. If people in Hunza do not have disease, how do they die? A. They die of old age. A man over a hundred years of age can be working in the fields, come home at night, go to sleep, and if it is his time to die, de does not wake up in the morning. He simply dies of old age, without disease and suffering.

Q. Who lives longer in Hunza, the men or the women? A. The men live longer by a few years than do the women. This is the only country in the world where men live longer than women.

Dr. Hoffman cites: "Scientists Forecast 120-Year Span" "Copenhagen, Denmark, August 24 (Reuters) - They haven't found the Fountain of Youth yet, but more than 1,000 scientists at a convention on old age here have agreed that even without it the human life span soon should average 120 to 130 years. The subject of growing old was

discussed at the Sixth International Gerontology Congress of scientists from throughout the world... More then 500 papers were submitted to the congress." From the many medical statement quoted above, it is quite clear that man can live to 120, and even as much as 140, if he abides by the health principles or laws of nature.

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5. **Extra: O - Optimum Health** - It's been suggested that it is the B complex that is a natural anti-repellent for mosquitoes. It works with raw vegans who have achieved an optimum diet, and mosquitoes seldom if ever bite them.

V - Vegetarianism

Consensus in the medical and academic community takes a long time. It took 30 years to prove that high cholesterol levels cause heart disease. When there's a majority of clinical studies present then there is a very good chance it is true. For over 30 years, studies (scientific, cross-cultural and historical) have been done on vegetarians and have proven time and time again that a vegetarian and vegan diet is healthier than a diet that includes meat. The living foods vegetarians are the healthiest.

To quote a few of the many studies: Vegetarian diets low in fat or saturated fat have been used successfully as part of comprehensive health programs to reverse severe coronary artery disease." *Journal of the American Medical Association* [1] In a study of more then 10,000 vegetarians and meat-eaters, British researchers found that the more meat consumed, the greater was the risk of heart attack. [2]

The Seventh Day Adventists are a group that has been studied because of their beliefs and diets. In a medical journal, Dr. Jeremiah Stamler, a cardiologist was talking about lifestyles and demonstrated with statistics on death rate quotes. He noted that: "An additional comparison has recently become available, with data on mortality for three groups of California Seventh Day Adventists (non-vegetarian, lacto-ovo-vegetarian and pure vegetarian) compared with the California general population. Seventh Day Adventists have lower mean serum cholesterol levels than Americans generally. For 47,000 Seventh Day Adventist men (aged 35 and over, age-sex-standardized) mortality rates were 34% lower for non-vegetarians, 57% lower for the lacto-ovo-vegetarians and 77% lower for the pure vegetarians compared to the general population. The results were evident that the strict dietary

your heart, with all your soul and with all your mind and with all your strength. This is the greatest and the first commandment. The second is like it: You shall love your neighbor as yourself." Matt 23:36-39
Mk 12:30

Endnotes

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1. Robert Cohen, Milk A-Z, p. 52, citing: *Journal of the American Medical Association*, 1995; 274.

2. Akers, Keith, A Vegetarian Sourcebook, p. 57. Citing: J. Brody, "New Research on the Vegetarian Diet," in *The New York Times*, October 12, 1983.

3. "The Seventh Day Adventist: Why do They Live Longer?" *Health Quarterly*, (Nov/Dec 1981).

4. **Extra: V - Vegetarian**. (a) A study by "Dr. C. L. Elvehjem in 'Amino Acid Supplementation of Cereal' warns that twice the daily requirement of certain amino acids in food leads to toxic cell disturbance. (B) Dr. Bieler states that one of the main sources of over acidity in the body is an excess of amino acids which disturbs the nitrogen balance. " (c) "Nutritional Experiments by W. Lintzel showed that plant proteins are more efficient than animal proteins in maintaining the nitrogen balance in adults. His experiments showed that smaller quantities of potato and rye grain protein were required than protein from milk, egg or meat." (Kulvinskas, Viktoras, M.S., Survival Into the 21st Century, 21st Century Publications, Woodstock Valley, CT., 1975, (a) Elvehjec C.C. "Amino Acid Supplementation of Cereal" *Cereal Science Today*, p. 162-64, 1956. (b) Bieler, H., M.D., Food Is Your Best Medicine,

Random House, New York, N.Y. (c) Ibid, p. 29. citing: Lintzel, W., Deutsche Med. Wochenscrift, LXXX 1955 p. 1047.)

5. Ballentine, R. Transition..., p. 82, citing: Freeland-Graves, JH, Bodzy PW, Eppright MA: Zinc status of vegetarians. *J Am Dietetic Assn* 77:655-61, 1980. Abdulla M. Aly KO, Anderson I, et al: Nutrient intake and health status of lactovegetarians. *Am J Clin Nutr* 40:325-38, 1984. Also, U.S. Department of Agriculture: *Nutrient Intakes: Individuals in 48 States*, year 1977-78. National Food Consumption Survery, 1977-78, Report no. 1-2, 1984.

Z - Zealous for Real Food

People who are zealous for raw and living foods are able to benefit themselves and many others. A German raw fooder, Dr. Johann Georg Schnitzer has helped many people learn to eat living foods and did a major study showing its benefits. Following are a few of the benefits in his monumental study.

The study involved 4702 people and their 2700 children who were questioned on how they had become healthier, more efficient and content. The Schnitzer-Report is 548 pages with tables, graphs and statistical analysis by the Institute for Demoscopy in Germany, about people following the Schnitzer-Nutritional recommendations.[1]

For the problem of constipation: 26.1% were troubled with constipation less often; 68.7% never again. Among men: 16.2% were constipated less often, 78.9% no constipation again.

After switching nutrition systems, there were (among adults) 65.6% with fewer colds, 27.5% with no more colds at all. Among the children, there were 74.5% with fewer colds, 11.9% no more colds at all. The incidence of influenza among adults after change in nutrition: 39.1% fewer, 54.3% not again. With children the incidence of influenza was 38.8% less often, 50.3% not again.

A remarkably high percentage of the families practicing Schnitzer-nutrition reported that their children did not get the usual children's diseases. The basis of our statistics are one thousand and nine hundred and seventy eight families with a total of 2700 children. Scarlet fever did not affect 96.8% of these children; 89.7% of the children were spared the German measles; 85.1% didn't get the chicken pox; 81.7% didn't get

the measles; 69.8% had no children's diseases at all. And the psychological disposition of these children also improved.

After the nutritional change-over, out of 4702 people: 49.7% had less tooth decay; 36.8% had no more tooth decay; 39.2% report an improvement with their gum problems; 33.2% have no more gum problems at all. Among the 2700 children 77.9% encountered less frequent or no more tooth problems.

On the veggie diet, among the men: 92.7% felt more productive than before the change and 71.2% are tired less often. Among the women, they became more energetic after the change-over: 91.7% indicated greater productivity; 76.6% were tired less often; 17.8% never felt tired again.

By examining the dental structure, it is possible to recognize the exact nutrition form for which an organism is adapted by nature. Dr. Reichard Lehne in his comparative anatomy studies of teeth, came to the conclusion that, according to the structure of their teeth, human beings are "Frugivores", fruit eaters. The term 'fruit' isn't meant to describe the varieties of fruit found in abundance today (they are the product of cultivated growing and have only been in existence for a few decades or centuries). What is meant are seed and nuts, tubers and root nodules, and leaf shoots and sprouts. The human dental anatomy is constructed and ideally suited for breaking up these natural food sources. [2]

"It is my view that the vegetarian manner of living, by its purely physical effect on the human temperament, would most beneficially influence the lot of mankind." Albert Einstein [3]

In the beginning in the Garden of Eden Adam and Eve were raw vegetarians: "God said, 'See, I give you all the seed-bearing plants that are upon the whole earth, and all the trees with seed-bearing fruit; this shall be your food." Gn 1.29

Endnotes

1. Schnitzer-Report, Dr. J.G. Schnitzer, Der 'Schnitzer-Report', 'Gesund und vital durch Schnitzer-Kost', 4702 people give accounts of their successes, 548 pages, tables, graphs, reference-index; statistical analysis by the Institute for Demoscopy in Allenbach; Schnitzer KG Verlag (publishers), D-7742 st. Georgen, Black Forest, West Germany.

2. Ibid., Schnitzer, p. 45.

3. Albert Einstein, letter to Vegetarian Watch-Tower, quoted in Why Vegan, Pittsburgh, PA. 1998.

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Wilmington, Delaware

August 27, 2004

Eric Hentges, PhD
Director, Center for Nutrition Policy and Promotion
Food Guide Pyramid Reassessment Team
USDA Center for Nutrition Policy and Promotion
3101 Park Center Drive, Room 1034
Alexandria, VA 22302

RE: Federal Register Doc. 04-15710, Vol. 69, No. 133; Center for Nutrition Policy and Promotion; Notice of Proposal for Food Guide Graphic Presentation and Consumer Education Materials; Opportunity for Public Comment

Dear Dr. Hentges:

The Produce for Better Health Foundation (PBH) commends USDA's Center for Nutrition Policy's (CNPP) Food Guide Pyramid Reassessment Team for their important work on the reassessment of the Food Guide Pyramid (FGP). We recognize the difficult task of adhering to the science while providing tools to help consumers make healthy food and beverage choices. PBH appreciates the commitment of CNPP to base the Food Guidance System (FGS) on sound science as well as assure that such a system conveys important messages, like the need for consumers to increase their intake of a variety of fruits and vegetables, in an easy-to-understand format familiar to consumers.

Based on the recent meeting of the Dietary Guidelines Advisory Committee as well as the open meeting you convened to gather public input regarding the FGS, PBH has one overarching recommendation highlighted below. We have also addressed the questions that were raised in the federal register notice.

PBH's Primary Recommendation

PBH recommends that stronger emphasis be placed on the role of fruits and vegetables in the final graphic that USDA develops. Specifically, based on the meeting of the Dietary Guidelines Advisory Committee in mid-August, we recommend that the words "5 to 13 servings" accompany the new Food Guidance System graphic and that fruits and vegetables figure more prominently in both the graphic and core messages. If the pyramid shape is maintained, fruits and vegetables should be at the base of the pyramid as a "stand-alone" category to reflect their prominence and higher serving number than any other category.

postmarked Aug 27, 2004

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Wilmington, Delaware

We make this recommendation for the following five reasons:

One: the 2005 Dietary Guidelines Advisory Committee stands poised to recommend, as part of the 2005 Dietary Guidelines, that consumers increase their intake of fruits and vegetable to 5 to 13 servings a day. This recommendation was made in part due to the analysis of CNPP in the development of the scientific underpinning of the food guidance system. As is stated in USDA's own information regarding the reassessment of the Food Guidance System:

> "USDA's current food guidance system, the Food Guide Pyramid, is being reassessed. The overall purpose of the reassessment is to ensure that the food guidance system reflects the *latest nutritional science* and to improve the educational tools that assist consumers in making healthier food choices. USDA expects to release the new food guidance system early in 2005."

It is imperative that USDA hold firm to its commitment to assure that the food guidance system reflect the latest science. The latest science, as the expert Dietary Guidelines Advisory Committee has determined, is that consumers should eat 5 to 13 servings of fruits and vegetables a day.

Two: Current intake for fruits and vegetables is low. Of all the key dietary recommendations, consumers do the worst in meeting the fruit and vegetable guidelines; therefore, they need to be prominently emphasized.

Three: All age and sex groups show a lack of variety in their fruit and vegetable intake. So, not only are consumers under-consuming fruits and vegetables, but they're not eating the variety they should. Just 6 fruits and vegetables make up 50% of all the fruits and vegetables consumed by Americans.

Four: Fruits and vegetables play a critical role in disease prevention and health promotion. The science supporting this important role continues to grow. Fruits and vegetables can also assist with weight management. When paired with activity and used as a substitute for energy dense, less nutritious foods, fruits and vegetables play an important role in weight maintenance and reduction. Upbeat messages about eating more fruits and vegetables are a welcome relief from more restrictive approaches.

And Five: Fruits and vegetables play a critical role in meeting the new Institute of Medicine (IOM) recommendations for fiber and potassium. These new levels can not be met without increasing fruit and vegetable intake.

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For these five reasons, PBH urges USDA to assure that any Food Guidance System needs to better reflect the higher number of servings (5 to 13) and place fruits and vegetables more prominently in the graphic – at the base of the pyramid if the pyramid is maintained. We realize that telling consumers to eat 5 to 13 daily servings of fruits and vegetables may sound daunting to some. However, most consumers will fall in the 5 to 10 servings a day, with the higher levels for those individuals consuming over 3000 calories/day. Focus group research by the National Cancer Institute with men showed that if you show men what 9 servings a day looks like on a food tray, they agree that they can consume that in a day. Many consumers are unaware of portion sizes.

PBH comments to specific questions raised in FR notice

1. Advantages and disadvantages of retaining current shape for graphic and other potential shapes to use as a representative of the overall Food Guidance System.

The current pyramid graphic has attained a high level of recognition and is generally perceived as an icon for healthy eating. However, current dietary practices and the obesity epidemic indicate very few consumers – only 2 to 4% – actually meet its dietary recommendations. In short, the current graphic has not been effective in helping Americans choose a healthy diet. Recent findings indicate that most diets are too high in refined grains and added sugars and fats. In addition to failing to meet the minimum requirements for the pyramid food groups, many children and adults are also failing to meet their requirements for vitamins, minerals, nutrients, and fiber.

We are not opposed to alterations in the graphic, but feel it is essential to build on the equity of the Food Guide Pyramid to convey to consumers actionable messages for which current dietary practices are particularly poor. We must go beyond providing a formula for healthy diets and call out the most significant dietary changes Americans need to make – including an increase in fruit and vegetable intake. At the very least, the proportion of the diet that should be fruits and vegetables should be conveyed graphically compared to other foods, with 5-13 servings in supporting documents.

Promote Consumption of At Least 5 to 13 Daily Servings of Fruits and Vegetables

As pointed out in the previous section, the Dietary Guidelines Advisory Committee stands poised to make the recommendation for consumers to eat at least 5 to 13 servings of fruits and vegetable a day, depending on their calorie needs. Given this increased emphasis on fruits and vegetables, the new Food Guidance System must better reflect the current science and place fruits and vegetables more prominently in the graphic. If the current shape of the pyramid is to remain, fruits and vegetables should form the base to more accurately reflect the increased number of servings as determined by the Dietary Guidelines Advisory Committee.

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Of all the areas in which consumers fall short of meeting federal dietary guidance, they are doing the worst in the fruit and vegetable category. CNPP's own graphics that represent where consumption is and where it needs to be show that consumption of orange and green leafy fruits and vegetables is far below recommended intake levels. CNPP's charts (attached) show that:

- ✓ Adult women and men must increase their dark green vegetables by 330% and 406% respectfully, in order to meet the existing Food Guide Pyramid recommendations.
- ✓ Women and men must increase their orange vegetables by 235% and 217%.
- ✓ Consumers on average need to increase their fruit intake by 127% for women and 190% for men in order to meet government dietary recommendations.

Across the board, consumers in all age groups – from the very young to the elderly – are not meeting dietary recommendations for fruit and vegetable intake. Therefore, in order to start moving consumers beyond the basic recognition phase of the pyramid, PBH strongly urges that the graphic and key messages focus on those areas in most need of change. This is a more targeted and cost-effective approach to change behavior and puts the pyramid concepts into actionable steps.

Not only do fruits and vegetables need to be more prominent in the graphic because of low intake patterns among all age and sex groups, but also because of the role they play in promoting health, preventing numerous chronic diseases, such as heart disease, cancer, and stroke, and assisting with weight loss when paired with activity and used as a substitute for energy dense, less nutritious foods. Fruits and vegetable also play a critical role in meeting the new IOM recommendations for fiber and potassium. PBH strongly recommends that the words "5 to 13 servings" accompany the revised food graphic.

PBH also agrees with a couple of the oral comments made on August 19th regarding the use of the word "beans" in place of "legumes" or "dry beans." Many consumers do not understand the term legumes and if we are to increase their consumption, we recommend that USDA use terminology that is consumer friendly.

Emphasis on Foods in Their Lowest Fat/Sugar/Sodium Form

USDA has based the scientific underpinning of the current pyramid on foods that are in their lowest fat form with minimal fat, sugar, and added sodium. This important concept has not been well communicated via the graphic or supporting documents, resulting in consumer confusion and increased caloric intake. PBH recommends that the words "lean" and "fat free" or "low fat" appear on the graphic itself in the meat/protein and dairy categories, respectfully, to better emphasize this concept.

In the same vein, emphasis needs to be given on consuming fruits and vegetables that have been minimally processed with little or no added fats, salt, and sugar. Americans already consume an overabundance of fried

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potatoes as a percentage of their vegetable intake. The CNPP charts (attached) show that adult women need to decrease their starchy vegetables by 18% in order to meet the existing Food Guide Pyramid recommendations.

Alternative Shapes
PBH does not support the pyramid graphic proposed by some that has all the food groups represented in a vertical manner with best choices at the bottom and less healthy choices at the top of the pyramid. This graphic will not help consumers choose foods wisely. The bulk of a healthy diet should be based on a plant-based foods of fruits, vegetables, legumes, and whole grains. Having all food groups represented in the base of the pyramid will be misleading and confusing. Almost all fruits and vegetables belong on the bottom of the graphic, not at all various levels. This proposed graphic would indicate varying levels of nutritional quality for fruits and vegetables for which there is no scientific basis.

2. Usefulness of the proposed strategies to highlight both motivational/awareness and educational messages.

PBH does support a more individualized approach of providing consumers with information based on their individual needs and through multiple channels. We also concur that one graphic alone cannot communicate the many dietary messages, including variety, moderation, serving sizes, portions, energy density, etc. that are important concepts for consumers to embrace.

However, we do have concerns regarding an approach that depends, in large part, on consumers taking extra steps to gather additional nutrition information. While consumers who are already concerned about their health may be motivated to seek further guidance and more specific information to help them continue to make sound choices, the majority of Americans who are not at that level, and arguably the very individuals that would benefit from the information, will not take the extra steps to seek further guidance. In which case, the proposed FGS will in fact be less effective than the current pyramid. Consumer testing is needed to evaluate the effectiveness and reach of interactive tools, such as a USDA website or CD-rom.

We urge CNPP to conduct focus group testing and a thorough review of the literature to better support a system that relies on consumer motivation and interest to make changes in dietary practices. We need to examine the perceptions and barriers people have for eating a healthier diet and better understand their unwillingness or inability to put into practice sound dietary advice. Most people recognize the importance of eating fruits and vegetables, yet only 26% of Americans eat 5 or more servings a day.

3. Advantages and disadvantages of the plan to individualize guidance in contrast to "generalized" messages.

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See responses to #1 and 2 above.

PBH urges CNPP to consider developing general messages that highlight areas that consumers are especially in need of improving. As stated in our response to #1 above, there are certain dietary guidance recommendations in which consumers are performing particularly poorly, primarily fruits and vegetables.

Despite efforts on the part of federal agencies as well as the private sector, the gap between federal consumption recommendations and consumer fruit and vegetable intake is substantial. PBH estimated that at the current rate of intake, it will take 128 years to close the gap between fruit and vegetable intake and the existing fruit and vegetable recommendations. (Ref. The Fruit and Vegetable Challenge: How Federal Spending Falls Short of Addressing Public Health Needs, Produce for Better Health Foundation, a report developed by M&R Strategic Services for the Produce for Better Health Foundation, April, 2002).

- Only 38% of all individuals consumed the recommended number of servings of vegetables.
- Only 23% of all individuals consumed the recommended number of servings of fruit.
- The numbers are worse for children, teens, young adults, and low income families.

(Source: CSFII, 1994-1996).

In addition, despite the public health recommendations urging Americans to eat a variety of fruits and vegetables, only a limited number of fruits and vegetable are actually consumed. For example:

- French fries were the commonly consumed vegetable for infants and toddlers 15 to 24 months. (FITS Study).
- Fried potatoes, including French fries, make up 22% of vegetable servings for adults 20 and older and 46% for children 2 to 19 years old. (NHANES, 2000).
- Only 3 vegetables (potatoes, iceberg lettuce, and canned tomatoes) accounted for almost half (48%) of vegetable consumption in 2000. (Putnam, et al, 2002).
- Only 3 fruits (oranges, apples, and bananas) contributed one-half of total daily fruit servings in 2000 (Putnam, et al, 2002).

Given the prominence of fruits and vegetables in the current Food Guide Pyramid and draft Dietary Guidelines for Americans, their important role in disease prevention and health promotion, the significant gap between recommended intake and actual intake, and the lack of variety currently consumed, PBH urges CNPP to develop general messages that alert consumers to the need to increase fruit and vegetable intake. PBH will be glad to work with CNPP on such messaging strategies. For example, "Parents who eat a variety of fruits

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and vegetables daily are teaching their children an important behavior they are likely to imitate, and one that can provide them with disease-fighting benefits for a lifetime" is a message targeted to parents to get across the importance of setting a good example for their children. Another example is, "Eating delicious fruits and vegetables in place of calorie-rich foods that are high in total fat, saturated fat, trans fat, and sugar, along with regular physical activity, may help with weight control."

PBH's Color Way campaign has provided an excellent way to communicate both variety and quantity to consumers in an easy-to-understand format. This color campaign encourages adults and children to eat fruits and vegetable from each of the different color groups as well as within each color group to increase the variety and quantity of fruits and vegetables consumed. PBH has tested the concept of using color as a way to think about variety when selecting and eating fruits and vegetables in a number of focus groups. This concept has been well received by all age, sex, and ethnic groups. PBH will be glad to work with CNPP in developing messaging that communicates important fruit and vegetable concepts to consumers.

Improve Coordination Among Key Government Agencies

PBH urges CNPP to work closely with the Food and Drug Administration (FDA) in coordinating strategies to promote health via the food label. FDA has taken significant steps to encourage the use of diet-specific health messages including qualified health claims and dietary guidance statements. Last July they announced a new framework for the review of health messages as part of its Consumer Health Information for Better Nutrition Initiative. The central focus of FDA's recommendations is to provide more and better information to consumers on how food choices can affect health. The benefit of eating a diet rich in fruits and vegetables to reduce the risk of some cancers and other chronic illnesses was highlighted as one of three key areas for FDA focus.

As part of that initiative, FDA announced a dietary guidance statement for fruits and vegetables (June 2003) that reads:

> "Diets rich in fruits and vegetables may reduce the risk of some types of cancer and other chronic diseases."

We urge CNPP to work closely with FDA in developing a coordinated strategy that provides consumers with information to help them consume a healthy diet, and builds on information already in place on food labels. One strategy may be to use the existing health claim and dietary guidance messages as a starting point for general messages, and to have the simplified pyramid graphic appear near such statements. PBH suggests that CNPP work with FDA to develop a new set of standards to define the use of the revised dietary guidance symbol on food packages. FDA has experience in setting standards and monitoring use of statements and

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symbols on food packages. Efforts to communicate key health messages to consumers should be coordinated with agencies that have specific experience in that area.

PBH also urges CNPP to coordinate activities with Health and Human Services' "Steps to a Healthier US." Social responsibility to ensure that policy makers support programs that foster healthy behaviors and prevent disease is a key component to this initiative, along with personal responsibility for the choices Americans make. Dietary guidance is needed to help consumers make wise choices everywhere they eat.

Individualized Approach
Noting the concerns outlined in #2 above, PBH supports the development of interactive, personalized guidance tools. These tools should include lists of foods that are good/excellent sources of vitamins, minerals, fiber, and major phytochemicals. Added attention should be given to those nutrients that the Institute of Medicine has identified as areas that most consumers fall short, such as fiber and potassium.

4. Advantages and disadvantages of the planned focus on core messages in contrast to use of a graphic to represent educational messages.

PBH supports the proposed approach in theory, but as stated above, more evidence is needed to suggest consumers will actually take the extra step to gather additional information via the more informative Food Guidance System. We recognize that not all messages can be adequately displayed in one graphic. However, there is still a need for a graphic that does represent the food groups, portions sizes, etc. This may not be the best graphic to be displayed on food labels, per se, but used more in educational settings and can be supplemented with additional, more detailed tools and messages.

The Graphic as a Symbol.
As stated in the federal register notice, the proposed plan is to simplify the graphic and use it as a symbol, to identify food guidance massages and materials and to remind consumers to make healthful food choices. If a simplified pyramid symbol is developed, it is important to recognize that this symbol represents a nutrition/health "icon" and that strong standards and guidelines should be developed for its use. PBH strongly suggests that criteria be developed that specifies very clearly how and where this symbol can be used so that its use encourages the consumption of healthy foods, including lean meats, whole grain products, fruits and vegetables, nonfat or low fat milk and milk products, and other nutritious foods. Additionally, government agencies need to monitor the use of this icon to ensure that it is used in compliance with the established standards.

The use of this symbol should be limited to products that consumers are recommended to consume more often. The current pyramid can appear on anything from 100% orange juice and fiber-rich whole grain

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products to sugar-sweetened drinks, breakfast-tarts and high fat crackers. Since there are no criteria for the pyramid's use and it appears ubiquitously on many food products regardless of their nutritional quality, it is not effective in helping consumers make wise food choices. Therefore, if USDA intends for the symbol to mean something to consumers, guidelines must be established and its use must be better controlled.

5. Key components for effective interactive educational tools.

PBH urges CNPP to look at the research surrounding "stages of change" to determine what percentage of Americans are likely to pursue additional information, and how best to address those millions of Americans who are not apt to take extra steps to seek nutrition guidance. PBH also cautions that while modern technology and the use of the internet has allowed many Americans to have access to computers and the web, millions still do not. Therefore the FGS must take into consideration both the likelihood of Americans to take extra steps to gather more nutrition information, as well as their ability to access the information via the internet or that is contained on CD-ROMS.

PBH has been working with research and education specialists to develop a web-based worksite wellness program to reach employees with health messaging at their place of work. Some of the key learnings from this project include the recognition that web designers need to add new information to a website on a regular (weekly or daily) basis to keep people coming back to the site and that "teasers" via email are helpful in drawing people to various sections of the website that are content rich that may not be visited otherwise.

6. Channels of delivery for the Food Guidance System.

See response to #5 above. PBH also urges CNPP to develop social marketing campaigns to communicate important nutrition information to consumers. Social marketing can be a cost-effective and efficient approach to reaching a large target audience with health-promotion messages.

A study of the use of billboards that promoted fruits and vegetables in Modesto, CA found that stores nearest the 5 A Day billboards had between a 4% and 20% increase per fruit and vegetable produce sales, compared with control stores in the chain that were not located near the 5 A Day billboards. (Reference: Increasing Fruit and Vegetable Intake Through Innovative Marketing. Nutrition Today, Jan/Feb. 2003). CDC's VERB campaign has also been effective in influencing activity behaviors of youth. There are countless other social marketing examples that we urge CNPP to consider as it develops strategies to influence behavior and promote healthy choices among consumers. These and other successful models should be explored before resources are spent on pamphlets or posters that are not as far reaching or behavior-focused.

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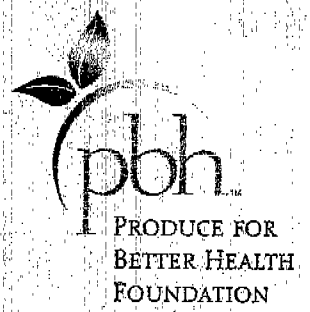

In summary, in order to move consumers beyond simply recognizing the pyramid, the graphic and key messages must focus on those areas in most need of change – including the encouragement to consumers to eat more fruits and vegetables. This more targeted and cost-effective approach to behavior change puts the new food guidance system concepts into actionable steps.

USDA must hold firm to the science, develop innovative promotion campaigns, and back the scientifically supported recommendation to eat 5 to 13 servings of fruits and vegetables a day.

PBH looks forward to working with you and others at USDA as you continue your important efforts to help consumers make healthy food and beverage choices.

Sincerely,

Elizabeth Pivonka, Ph.D., R.D.
President
Produce for Better Health Foundation

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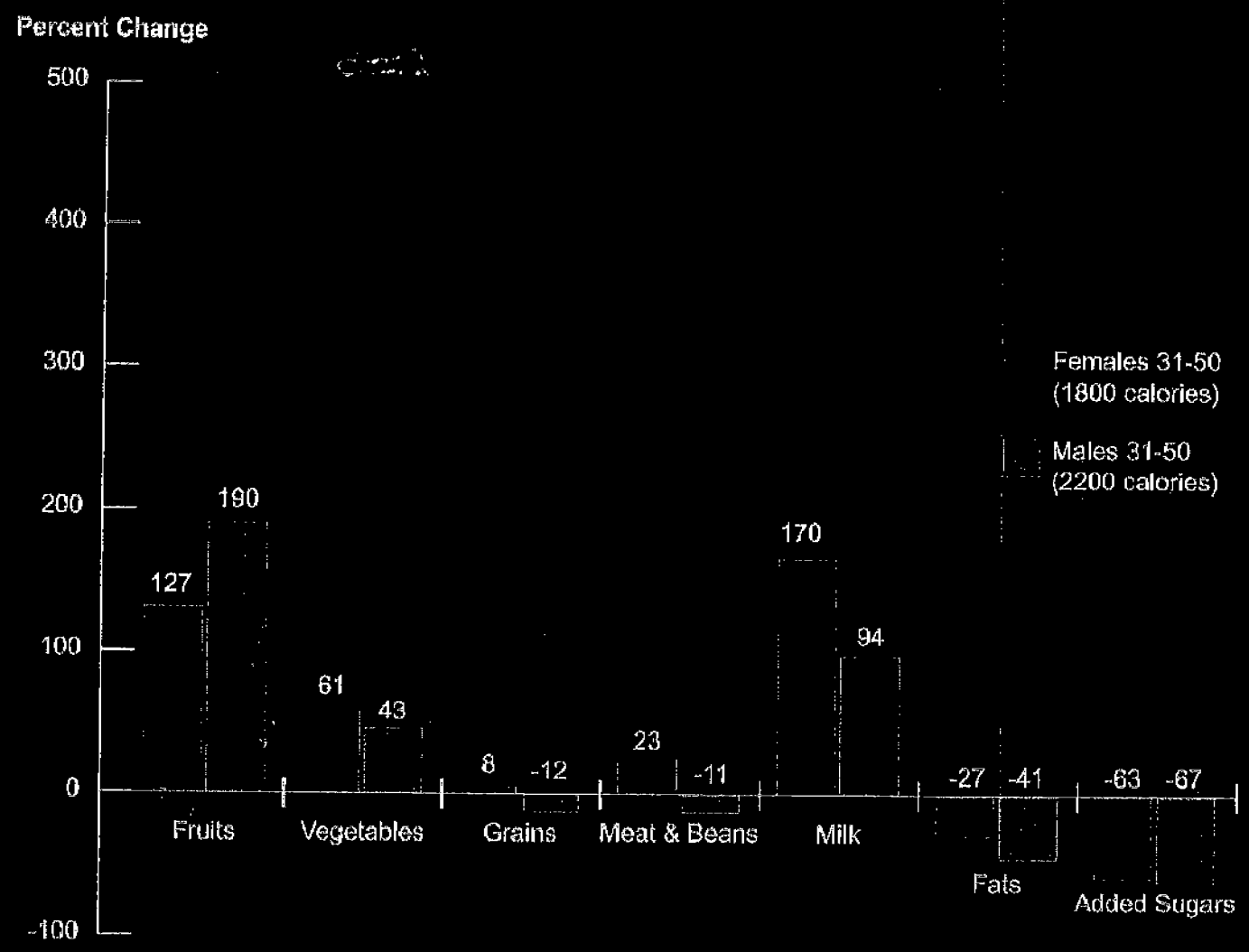
Proposed Recommendations vs. Consumption



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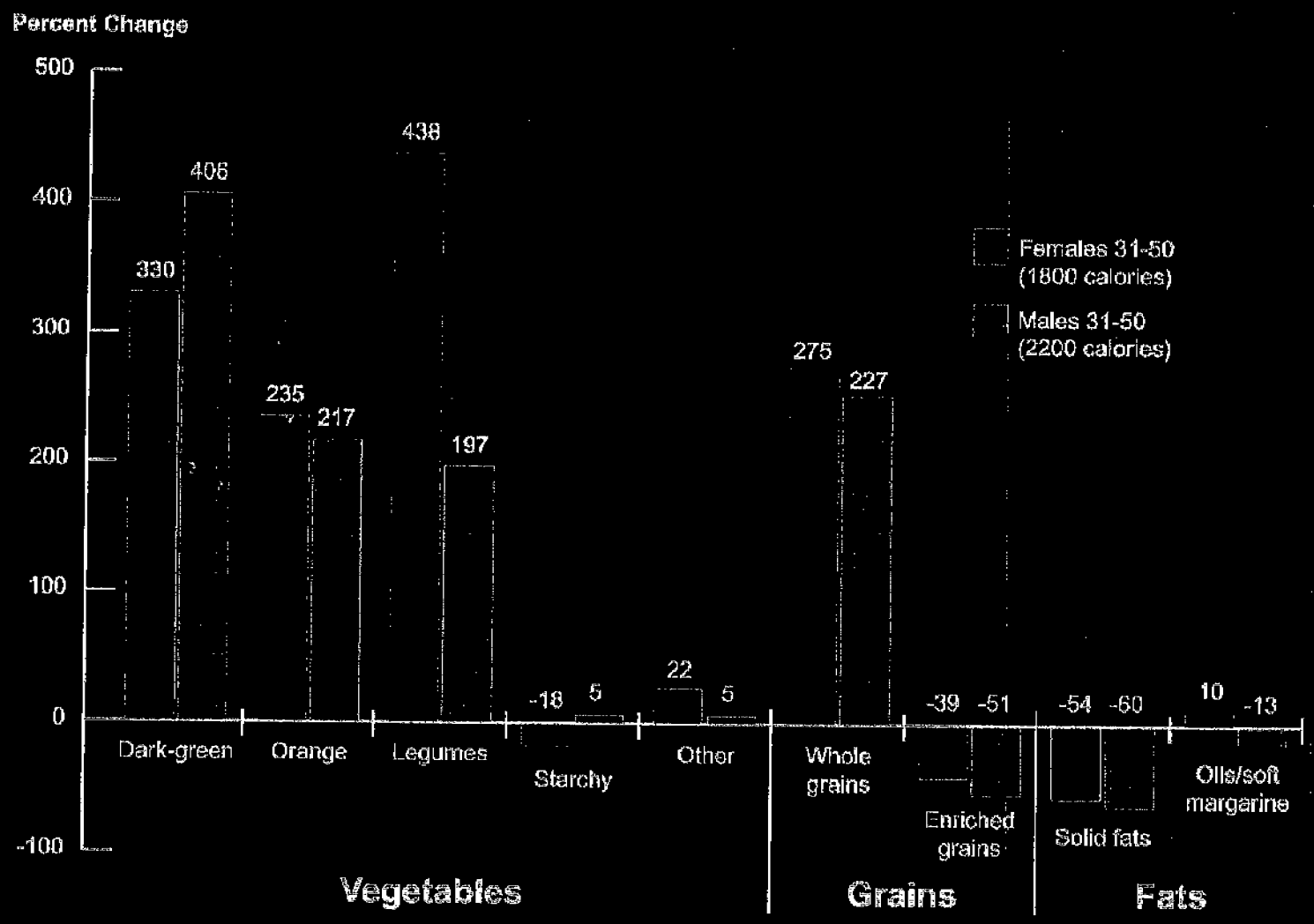
Proposed Recommendations vs. Consumption



112-0412

Food Pyramid Reassessment Team
USDA Center for Nutrition Policy
3101 Park Center Drive Room 301
Alexandria Virginia 22303

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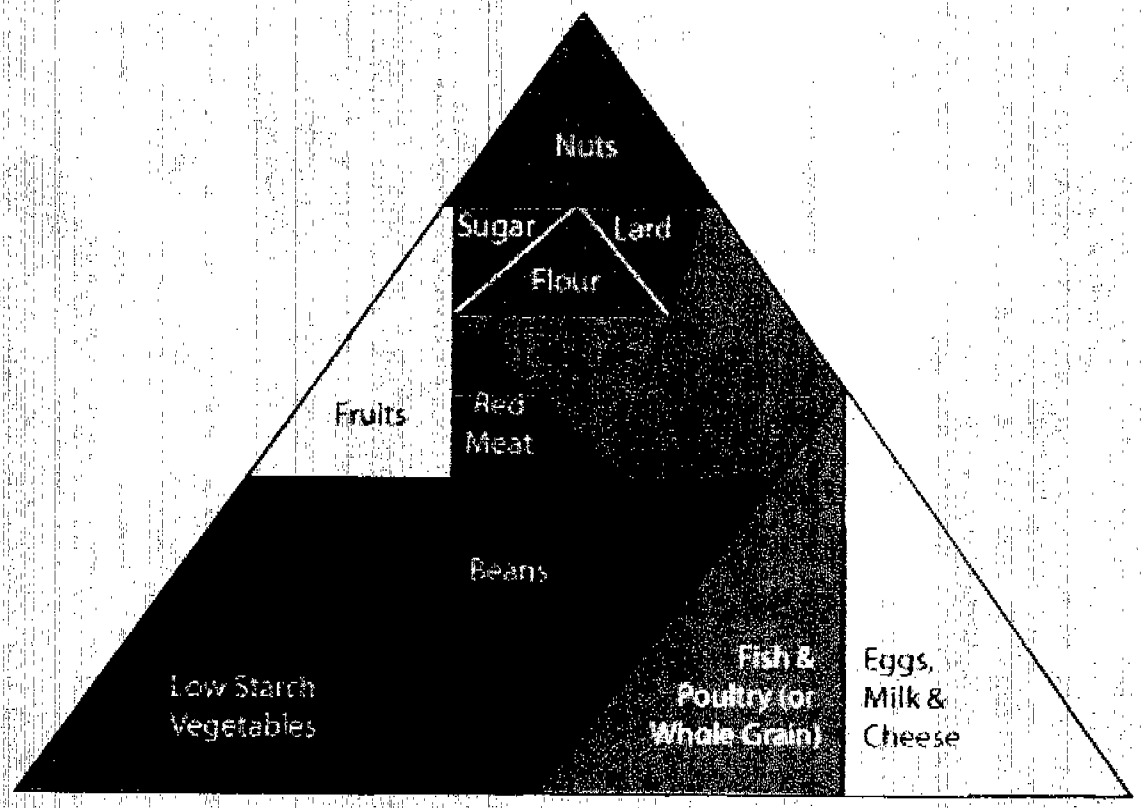
20 August 2004

I notice that page 8 of 11 of the Brubaker comments (FGP July 26 -- comments 058-070) is missing. I have enclosed the missing sheet for your convenience.

Stephen R. Brubaker

feel hungry, increase our food consumption, to grow obese, and get ill.



This simple food pyramid encourages the consumption of both low fat foods and low glycemic index foods. The areas of the triangles are roubly proportional to recommended eating practices. It emphasizes fresh produce, beans, fruits, vegetables, fish, poultry, dairy, and nuts. It de-emphasizes grains. It discourages 'white food.'

Colors of triangles were chosen to suggest the color of one or several members of the group: bananas are the color fo the Fruits box; carrots the color of the Root Vegetables box, and kidney beans the color of the Beans box. The colors are chosen to be vibrant and festive in order that the food pyramid attracts the eye. It seems likely a clever artist could improve on this implementation greatly.

Grayish aqua is the color of no edible substance, except possibly the mold in Roquefort cheese; therefore, this was the color chosen for the "white foods" - the ones that add calories but no other nutrients. We wish to convey the idea intuitively that people need to stay away from these foods.

Red meat plays just as small a role in this version as it does in the original. It would not be hard to make modifications that would represent eating slightly less beans or slightly more poultry. Some will argue that half the beans should be given over to red meat because that's closer to how Americans eat. And if that makes the food pyramid more likely to be used it seems like a good tradeoff. It seems imperative that foods with strong glycemic peaks have limits: fruits, root vegetables, and grains.

Noting that the chief function of fish and poultry for an omnivore is the same as that of grain for a vegetarian - to provide complete and high quality protein - the two food groups

My suggestions for food pyramid.

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AUG 31 2004

1. Milk has too many hormones & now even missile fuel! Promote other calcium strong products like fortified soy milk, dark green leafy veggies

2. Keep beef off a 2 a minimum. Let's eat more like the Okanawans (See Prevention Magazine, Aug. Ed.)

Keep the pyramid more ♡ healthy. Thanks

Margaret Spittle

Colden, NY

postmarked Aug 27, 2004

National Watermelon Promotion Board

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August 24, 2004

AUG 30 2004

Arney

1 of 1

USDA Center for Nutrition Policy and Promotion
3101 Park Center Drive
Room 1034
Alexandria, VA 22302

Dear Sir or Madam:

My name is Mark Arney and I am Executive Director for the National Watermelon Promotion Board (NWPB). The NWPB works to increase consumer demand for watermelon and expand domestic and foreign markets for watermelon through a variety of promotion, research and education programs.

Our association belongs to the Produce for Better Health (PBH) Foundation. We strongly concur with PBH's recommendation that the new Food Guidance System needs to place a much stronger emphasis on the role of fruits and vegetables.

We urge USDA to place fruits and vegetables at the bottom of the pyramid. The Dietary Guidelines Advisory Committee's proposed recommendations that Americans should eat 5 to 13 servings of fruits and vegetables a day. We agree with the advisory committee's recommendations.

Sincerely,

Mark Arney

Mark Arney
Executive Director

Phone: [redacted]
Fax [redacted]
Orlando, FL [redacted]
Winter Park, FL [redacted]
www.watermelon.org

postmarked Aug 24, 04

EAT 5 A DAY

8/24/2004

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Frederick Ravid

Atlanta, GA

(Ravid) 1 of 2

ack AUG 30 2004

USDA Center for Nutrition Policy & Promotion
3101 Park Center Drive, Room 1034
Alexandria, VA 22302

I am in favor of adoption of the modification of the food pyramid as stated below. I am also disturbed that FDA is not accepting emails, thus making it harder for citizens to communicate about this crucial matter of health.

The Following Pyramid Is Proposed

The base should be the maintenance of energy, having an exercise program and controlling calories and weight.

The next level should be a variety of organic healthy whole carbohydrates such as fruit and vegetables having color: green, yellow, orange, red, blue, purple, with a large portion of this uncooked to preserve the nutrients.

The next level should be whole grains and starchy vegetables.

The next level should be legumes, beans, peas, sprouted nuts and seeds.

The next level should be limited amounts of fats from fruits, vegetable, nut and seed sources. With no more than 20-30% of our calories coming from these healthy fats.

A strong notation should be made on the pyramid of foods that should be eaten rarely and eventually eliminated completely from the diet. These should be: salt (no more than 1000 mg /day or less), sugar, high fructose corn syrup, and other processed sugars, refined grains, trans-fatty acids, and saturated fat (all animal products have saturated fat). All of these foods need to be eliminated completely from the diet, not cut in half as proposed by the USDA.

What professional in the health and nutrition field is telling us that we are deficient in saturated fat, sugar, refined grains, or trans-fats and need to get them into our diet? These foods cause inflammation and can lead to many of the chronic diseases that plague our society. If these unhealthy foods are eaten then there would not be enough calories left for the fruits and vegetables containing a large amount of antioxidants, phytonutrients,

postmarked 8/25/04

vitamins and minerals which can keep the body healthy.

If enough of the levels two through five are eaten to maintain energy and a healthy weight there will be more than adequate protein, folate, calcium, omega 3 fatty acids, and other nutrients in the diet. (refer to the WHO's recommendations for protein needs). Animal protein and fat are not necessary for a healthy diet.

A plant based vegan diet with a healthy variety of uncooked fruit, vegetable, nuts, and seeds is the healthiest way to eat.

Raw'd

ALBERT F. GORDON

• Stephentown, NY
TEL/FAX: • E-mail

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8/26/04

Gordon 1 of 1

AUG 30 2004

Please, USDA, emphasize BEANS + NUTS + other plant based sources of protein rather than MEAT.

As for MILK, we are still the only species that drinks the milk of another — + for babies? Can't you change the "MILK" category to CALCIUM GROUP?

Thank you

postmarked 8/26/04

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ALLISON MARIE MEMMO GEIGER

DRESHER, PA
PHONE:
EMAIL:

Geiger
1 of 1

AUG 30 2004

August 26, 2004

The Food Guide Pyramid Reassessment Team
USDA Center for Nutrition Policy and Promotion
3101 Park Center Drive Room #1034
Alexandria, VA 22302

Re: Changes to the Pyramid

Dear Team,

There are several changes I would like to see implemented into the current Food Guide Pyramid. First, I would like to see the "milk" grouped changed to the "calcium" group, and it should include leafy greens and blackstrap molasses. Next, I would like the "meat" group changed to the "protein" group, and this should emphasize plant-based proteins such as beans and nuts, which don't carry the health risks associated with the animal products. Finally, I would like to see the recommendations for fruits to increase to four servings a day and vegetables, five.

Very truly yours,

Allison Marie Memmo Geiger

postmarked 8/26/04

Melissa Jensen, 1503 Pacific St. Apt. #2, Bakersfield, CA 93305

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AUG 30 2004
asf

The Food Guide Pyramid Reassessment Team
USDA Center for Nutrition Policy and Promotion
3101 Park Center Drive Room #1034
Alexandria, VA 22302

Jensen | 1 of 1

Thursday, August 26, 2004

To Whom It May Concern:

I would like to offer my opinion on the changes to be made to the food Guide Pyramid. I have two school age children and would like them to be well informed on nutrition.

I feel strongly that to fulfill the intended duty the "Dairy" section be changed to the "Calcium" section. There are many calcium rich foods that have less fat than even low fat milk such as green leafy vegetables and garbanzo beans.

I am not suggesting that dairy be removed from the food guide, only that it should not be promoted as having a monopoly on calcium when there are so many with lactose intolerance or who do not consume animal products. We should be educating everyone in proper nutrition and this will be a step in the right direction.

Please use your power to make a change for a less biased, more accurate Food Guide Pyramid. Thank you for the opportunity to input.

Sincerely,

Melissa Jensen

postmarked 8/20/04

Iowa Department of Public Health

Thomas J. Vilsack
Governor

Sally J. Pederson
Lt. Governor

Mary Mincer Hansen, R.N., Ph.D.
Director

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Solberg
1 of 3

AUG 30 2004

August 26, 2004

Food Guide Pyramid Reassessment Team
USDA Center for Nutrition Policy and Promotion
3101 Park Center Drive, Room 1034
Alexandria VA 22302

To Whom It May Concern:

RE: Notice of Proposal for Food Guide Graphic presentation and Consumer Education Materials; Opportunity for Public Comment

Dietitians from the Bureau of Nutrition and Health Promotion submit the following responses to the Federal Register notice, vol. 69, No. 133 that was issued on Tuesday, July 13, 2004.

A. Motivational/Awareness Components
Graphic

- While there was not complete agreement on keeping the pyramid graphic, the majority felt there were more pros than cons to keeping the basic shape of the graphic.
- The graphic symbol should reflect the proposed food patterns. For example, using forms of each food in a group with the lowest fat content and without added sugars: distribution of vegetables among dark-green, deep-yellow, legumes, starchy; emphasis on whole grains; and pictured in the recommended serving sizes, if possible.
- We agree that the graphic should not be used as a stand-alone educational tool. While we appreciate the concern about the complexity of the food messages to be conveyed, it would be helpful to have the graphic convey basic nutrition messages so that it can be used as an education tool - not just a symbol. For example, removing the number of servings from the existing pyramid would still allow for the message of proportionality and variety to come through.
- To decrease the "one-graphic-fits-all" problem, consider designing one for children, adults, and older adults (similar to Tufts).
- We are not opposed to having physical activity incorporated into the graphic, but physical activity should have a stand-alone graphic reflecting the variety of physical activities.

Postmarked 8/26/04

Slogan

- We are very supportive of a companion slogan. Many people remember slogans from education programs such as "4-4-3-2, that's the formula for me and you" that was used with the Mulligan Stew nutrition education program. Physical activity should be a part of the slogan.

A. Core Messages and Framework

We do not have any disagreement with the three key behavioral outcomes.

- The core messages that will be developed should not be vague using phrases like "moderate your intake." If we are going to tackle the obesity crisis there must be "eat less" messages of the food items that are not nutrient dense and will almost assure that an individual cannot meet the food patterns unless they are extremely active.
- Develop a positive message that an individual's diet can be more liberal if they increase physical activity.
- Promoting individual foods that are nutrient dense is logical but the Food Guidance System should also reflect how people really eat: convenience meals, soups, mixed dishes, etc. How would individuals know to fit these in the food patterns?
- Language must be very simple and actionable. Testing of the messages is critical! Do not invest money into developing print materials if the messages have not been thoroughly tested. Test with as many audiences as possible. Children, teens, and older adults (over the age of 70) need to be included if the Food Guidance System is intended for all ages.
- The wording of core messages (and perhaps the content) may need to be adjusted for a particular audience. For example, how would the requirement for vitamin D be conveyed to an older adult, as this would likely need to be taken as a supplement?

B. Interactive personalized guidance

Level 1

- The Internet would be a logical venue for the interactive tools. However, it might be possible to explore a hand-held tool for the basic information. For example, multi-layered wheels could allow an individual to select their personal characteristics and once those were in place, a proposed pattern would show up in a special box or wedge.
- On the Internet, could the individualized food pattern be depicted using real food in appropriate serving sizes?

Level 2

- Interactive tools should include popular convenience and ethnic foods reflecting the way teenagers and young families eat.
- Include advice about how to comply with a food pattern if the individual chose a "fast food" meal. Recommend substitutions for over-consumed foods that are not providing a healthy calorie: nutrient balance.

Solberg 2 of 3

- Provide examples on how to use food labels to avoid trans fats and to select nutrient-dense or lower sodium foods.
- Many individuals would welcome sample menus.
- Simple instructions on how to limit discretionary sugars and fats will be essential.
- Provide guidance on types of fats.
- We support the development of print materials for different audiences. Again, please make sure to include older adults. If the main graphic were to be modified to reflect the needs of children, adults, and older adults, then the print materials should correspond with the same target audiences.

Sincerely,

Judy Solberg

Judy Solberg, MPH, RD, Chief
Bureau of Nutrition and Health Promotion

Angie Tagtow

Angie Tagtow, MS, RD
Community Health Consultant

Brenda Dobson

Brenda Dobson, MS, RD
Nutrition Services Coordinator

Carlene Russell

Carlene Russell, MS, RD
Community Health Consultant

Carol Voss

Carol Voss, MEd, RD
Community Health Consultant

Doris Montgomery

Doris Montgomery, MS, RD
Community Health Consultant

Emily Roepsch

Emily Roepsch, MPA, RD. LD
Community Health Consultant

Holly Szcodronski

Holly Szcodronski, RD, CLC
Breastfeeding Coordinator

Susan Pohl

Susan Pohl, MS, RD
Community Health Consultant

Janie J. Steffen

Jan Steffen, MS, RD
Community Health Consultant

August 23, 2004

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AUG 30 2004

Food Guide Pyramid Reassessment Team
USDA Center for Nutrition Policy and Promotion
3101 Park Center Drive, Room 1034
Alexandria, VA 22302

Pike | doc 1

RE: Comments on Food Guide Pyramid

As you are reassessing the food guide pyramid, I would like to see more information on how I can incorporate more vegetables and vegetable products (like soy, tofu, etc.) into my diet. Like most Americans, I am trying to manage my health through better nutrition and food choices. One thing that I notice is lacking in many of the USDA publications and specifically the Food Guide pyramid, is how to incorporate sources of vegetable protein into my diet.

I am not a vegetarian, and I do consume a wide range of animal foods, but please consider more information about the topics of vegetable-based proteins like soy, TVP, and other similar products. These are becoming easily available in the supermarkets, and I think the USDA should take the lead in providing unbiased information about these products, similar to how it currently provides information about dairy products and beef.

Thank you for you consideration.

Richard Pike

Cobb Island, MD

postmarked 8/27/04

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8/24/2004

AUG 30 2004

Peterson 1 of 2

To: Food Guide Pyramid Reassessment Team
USDA Center for Nutrition Policy & Promotion
3101 Park Center Drive, Room 1034
Alexandria, VA 22302

To Whom It May Concern:

This was written by Jackie Graff but I am sending it as I feel that she is 100% right on target here in regards to the new proposals for a new Food Guide Pyramid.

By Jackie Graff, R.N., B.S.N.

The present food pyramid along with high powered advertising are part of the reason we are the fattest and most unhealthy we have ever been in this country. Immigrants from other countries who adopt our way of eating become overweight and get many diseases not common in their countries. The change is long overdue. People are getting diseases in their youth that they used to get as they aged. I see this in my work as a nurse.

The American public should know the truth. We do not need just a few tweaks to the present pyramid. We do not need small changes that allow manufacturers to spin new products and consumers to gradually change their diets. The public needs guidance for changes NOW! The U.S.D.A. needs to get it right this time, our lives are depending on honest information. Individuals can make their own choices- just give us the truth. Enough studies are out there that prove the following proposed guidelines.

The TRUTH is needed- some will follow and some will not. We cannot change everyone. Some will eat what they want with no consideration of their health. People that want to improve are confused and need guidance, they need the truth. There are many diet books out there that do not work long term, this is why there are so many- because they do not work. With all of our intelligence and knowledge it is embarrassing to be the most overfed, overweight, malnourished country in the world. We have to stop letting the food industry and diet books, whose interest is dollars, affect the health of our nation.

This change in the food pyramid should not be influenced by any special interest food groups. It should be based on how we should eat to get the most nutrition out of our food choices. Our most nutritious foods are whole fruits, vegetables, nuts and seeds that do not come in packages. These contain a large amount of antioxidants, phytonutrients, omega 3 fatty acids, vitamins and minerals. These nutrients and antioxidants are protection for plants and will also protect us from chronic disease.

The nutrients we need to get from our food cannot successfully be

postmarked 8/26/04

obtained from a pill. The nutrients we get from food work synergistically with each other. To get enough of these nutrients we need to be eating a lot of fruits and vegetables.

The Following Pyramid Is Proposed

The base should be the maintenance of energy, having an exercise program and controlling calories and weight.

The next level should be a variety of organic healthy whole carbohydrates such as fruit and vegetables having color: green, yellow, orange, red, blue, purple, with a large portion of this uncooked to preserve the nutrients.

The next level should be whole grains and starchy vegetables.

The next level should be legumes, beans, peas, sprouted nuts and seeds.

The next level should be limited amounts of fats from fruits, vegetable, nut and seed sources. With no more than 20-30% of our calories coming from these healthy fats.

6. A strong notation should be made on the pyramid of foods that should
be eaten rarely and eventually eliminated completely from the diet. These should be: salt (no more than 1000 mg /day or less), sugar, high fructose corn syrup, and other processed sugars, refined grains, trans-fatty acids, and saturated fat (all animal products have saturated fat). All of these foods need to be eliminated completely from the diet, not cut in half as proposed by the USDA.

7. What professional in the health and nutrition field is telling us that we are deficient in saturated fat, sugar, refined grains, or trans-fats and need to get them into our diet? These foods cause inflammation and can lead to many of the chronic diseases that plague our society. If these unhealthy foods are eaten then there would not be enough calories left for the fruits and vegetables containing a large amount of antioxidants, phytonutrients, vitamins and minerals which can keep the body healthy.

8. If enough of the levels two through five are eaten to maintain energy and a healthy weight there will be more than adequate protein, folate, calcium, omega 3 fatty acids, and other nutrients in the diet. (refer to the WHO's recommendations for protein needs). Animal protein and fat are not necessary for a healthy diet.

9. A plant based vegan diet with a healthy variety of uncooked fruit, vegetable, nuts, and seeds is the healthiest way to eat.

Respectfully, Breezi Peterson Breezi Peterson

Lakebay, Wa.

Yoshida
1 of 3

Kelvin Yoshida
Pearl City Hawaii

335

July 2, 2004

Congressman Neal Abercrombie
US House of Representatives
Prince Kuhio Federal Building
300 Ala Moana Blvd.
Room 4-104
Honolulu, HI 96850

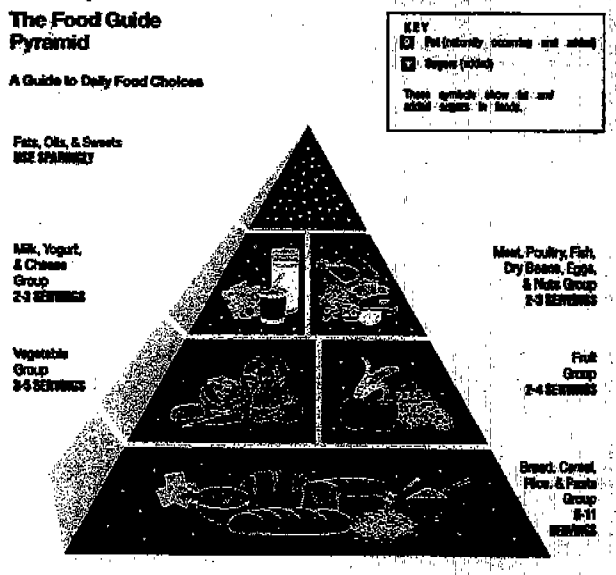
Dear Congressman Neal Abercrombie,

My name is Kelvin Yoshida. I live in Pearl City, Hawaii and am Boy Scout from Troop 49 in Honolulu. I am writing to you regarding my views about obesity as a national issue.

In the United States, obesity has risen at an epidemic rate. The United States spends billions on health care. Yet, the rates for obesity are escalating. The impact caused by type 2 diabetes, heart disease, arthritis, stroke and the other conditions caused by obesity are only going to escalate.

Obesity in children and adolescents is a serious issue with many health and social consequences that often continue into adulthood. Implementing prevention programs and getting a better understanding of treatment for youngsters is important to controlling the obesity epidemic. The United States Department of Agriculture (USDA) should change the Food Pyramid.

The current food pyramid, small tip at the top shows fats, oils, and sweets. These are foods such as salad dressings and oils, cream, butter, margarine, sugars, soft drinks, candies, and sweet desserts. These foods provide calories and little else nutritionally. Most people should use them sparingly. On the second level of the Food Guide Pyramid are two groups of foods that come mostly from animals: milk, yogurt, cheese; and meat, poultry, fish, dry beans, eggs, and nuts. These foods are for protein, calcium, iron, and zinc. The next lower level includes foods that come from plants - vegetables and fruits. Most people need to eat more of these foods for the vitamins, minerals, and fiber they supply. At the base of the Food Guide



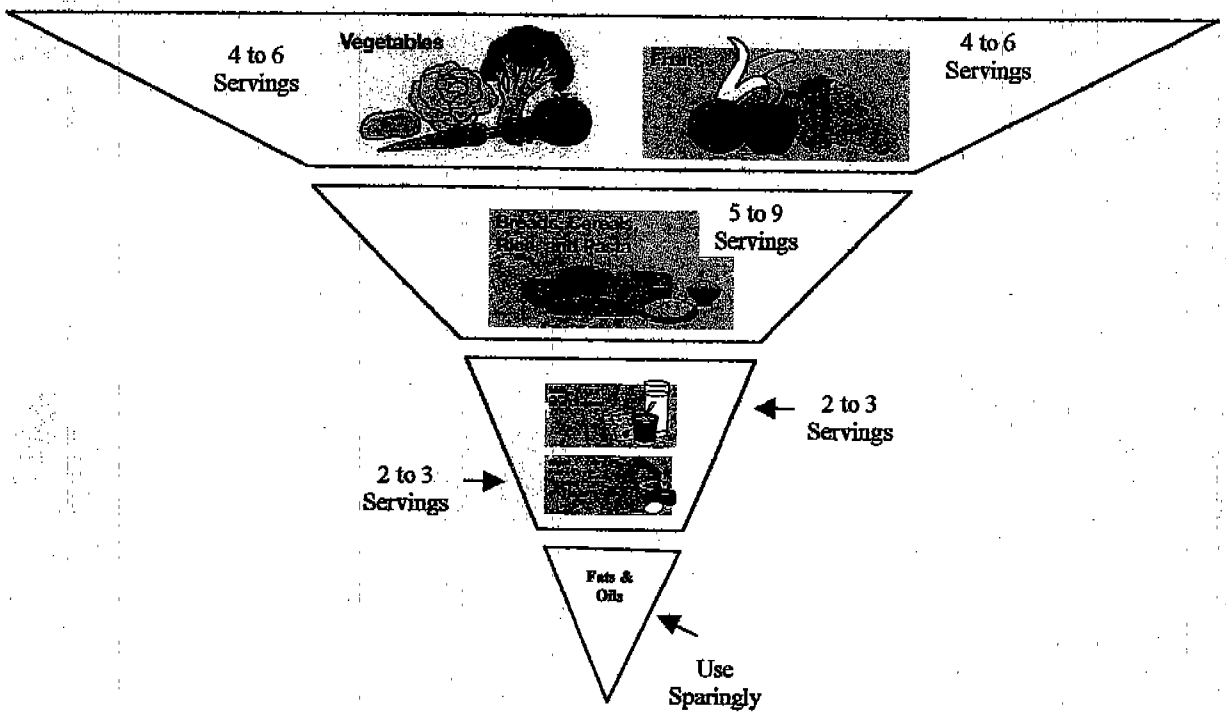
Pyramid are breads, cereals, rice, and pasta - all foods from grains. You need the servings of these foods each day.

The USDA should be advised to change the Food Pyramid. They should switch the bread and plant group spots in the current Food Pyramid. Place the foods that come from plants at the base instead of the bread cereal, rice and pasta foods because most people need to eat more of these foods for the vitamins, minerals, and fiber the plants supply. There could be one other change, which would be to turn the Food Pyramid upside down. This way the top would be large with the foods that we should eat more of at the top and the foods we should eat less of at the bottom (see diagram below).

What do you think about my suggestion on changing the food pyramid? I look forward to your thoughts on obesity.

Thank you for your time.

Kelvin Yoshida



NEIL ABERCROMBIE
1ST DISTRICT, HAWAII
WHIP-AT-LARGE

Yoshida 3 of 3

COMMITTEE ON
ARMED SERVICES
COMMITTEE ON
RESOURCES

Congress of the United States
House of Representatives
Washington, D.C.

AUG 30 2004

August 25, 2004

Food Guide Pyramid Reassessment Team
USDA Center for Nutrition Policy and Promotion
3101 Park Center Drive, Room 1034
Alexandria, VA 22302

To Whom It May Concern:

At the request of my constituent, Kelvin Yoshida, I am forwarding his suggestions for changes to the Food Guide Pyramid.

Please don't hesitate to contact me if you should have any questions. Thank you for your time.

Sincerely,

Neil Abercrombie
Member of Congress

ORIGINATED FROM:

☑ WASHINGTON OFFICE: WASHINGTON, D.C.
☐ HOME OFFICE: HONOLULU, HAWAII
Homepage: http://www.house.gov/abercrombie/

100% recycled

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August 26, 2004

AUG 30 2004

The Food Guide Pyramid Reassessment Team
USDA Center for Nutrition Policy and Promotion
3101 Park Center Drive Room #1034
Alexandria, VA 22302

RE: Redefinition of the Food Pyramid

I am truly encouraged and excited that you are taking a look at the Food Pyramid and considering updating it to reflect recent findings on how what we eat affects our health. PLEASE emphasize healthier plant-based sources of protein such as beans and nuts in their "meat" group. It has been well documented that disease does not occur in a ph basic cell, and that meats cause the body to produce acid that leaves our cells in a more vulnerable "acid state", thus more susceptible to all diseases. Fruits, vegetables, nuts and whole grains create a basic cell environment, leading to better overall health.

Also, I would like to see you change the "Milk" group to the "Calcium" Group to more accurately describe what our bodies need, not target a specific product. Green leafy vegetables are the very best source of calcium available! Milk is under great scrutiny for being associated with prostate cancer in men and Crohn's disease. Recently live paratuberculosis bacteria was found in retail milk purchased from stores in Wisconsin, California and Minnesota, proving that the organism can survive pasteurization![1]

Please do the right thing! Help parents by emphasizing a diet of mostly vegetables, nuts, whole grains and fruits, with limited exposure to products tainted by hormones, antibiotics, bacteria and pesticides.

Sincerely,

Gina Stephenson

Gina Stephenson

[1] Cheese Reporter 19 August 2004

Postmarked 8/26/04

Theresa Sharp

Irvine, CA

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Sharp 1 of 2

AUG 30 2004

Food Guide Pyramid Reassessment Team
USDA Center for Nutrition Policy & Promotion
3101 Park Center Drive, Room 1034
Alexandria, VA 22302

Dear Sirs/Madams:

The present food pyramid along with high powered advertising are part of the reason we are the fattest and most unhealthy we have ever been in this country. Immigrants from other countries who adopt our way of eating become overweight and get many diseases not common in their countries. The change is long overdue. People are getting diseases in their youth that they used to get as they aged. I see this in my work as a nutritional microscopist.

The American public need to be educated about the truth of the risks associated with the Standard American Diet (SAD). Though some will follow and some will not, people that want to improve are confused and need guidance, they need the truth. With all of our intelligence and knowledge it is embarrassing to be the most overfed, overweight, malnourished country in the world. We have to stop letting the food industry and diet books, whose interest is dollars, affect the health of our nation.

We do not need just a few tweaks to the present pyramid. We do not need small changes that allow manufacturers to spin new products and consumers to gradually change their diets. The public needs guidance for changes NOW! The U.S.D.A. needs to get it right this time, our lives are depending on honest information. Individuals can make their own choices- just give us the truth. Enough studies are out there that prove the following proposed guidelines. Harvard Medical has already made proposed changes based on all current research, which you can check online at their site.

This change in the food pyramid must not be influenced by any special interest food groups. It should be based on how we should eat to get the most nutrition out of our food choices. Our most nutritious foods are whole fruits, vegetables, nuts and seeds that are not processed (or at least minimally so). These contain a large amount of antioxidants, phytonutrients, omega 3 fatty acids, vitamins and minerals. These nutrients and antioxidants are protection for plants and will also protect us from chronic disease.

The nutrients we need to get from our food cannot successfully be obtained from a pill. The nutrients we get from food work synergistically with each other. To get enough of these nutrients we need to be eating a lot of fruits and vegetables.

The Following Pyramid Is Proposed

The base should be an exercise program and adequate hydration with non-sugary, non-caffeinated fluids.

The next level should be a variety of organic, whole, complex carbohydrates, such as fruit and vegetables having color: green, yellow, orange, red, blue, purple, with a large portion of this uncooked to preserve the nutrients.

The next level should be legumes, beans, peas, sprouted nuts and seeds. Followed by whole grains and starchy vegetables.

postmarked 8/25/04

The next level should be limited amounts of fats from fruits, vegetable, nut and seed sources. With no more than 20-30% of our calories coming from these healthy fats.

6. A strong notation should be made on the pyramid of foods that should be eaten rarely and eventually eliminated completely from the diet. These should be: salt (no more than 1000 mg /day or less), sugar, high fructose corn syrup, and other processed sugars, refined grains, trans-fatty acids, and saturated fat (all animal products have saturated fat). All of these foods need to be eliminated completely from the diet, not cut in half as proposed by the USDA.

7. What professional in the health and nutrition field is telling us that we are deficient in saturated fat, sugar, refined grains, or trans-fats and need to get them into our diet? These foods cause inflammation and can lead to many of the chronic diseases that plague our society. If these unhealthy foods are eaten then there would not be enough calories left for the fruits and vegetables containing a large amount of antioxidants, phytonutrients, vitamins and minerals which can keep the body healthy.

8. If enough of the levels two through five are eaten to maintain energy and a healthy weight there will be more than adequate protein, folate, calcium, omega 3 fatty acids, and other nutrients in the diet. (refer to the WHO's recommendations for protein needs). Animal protein and fat are not necessary for a healthy diet.

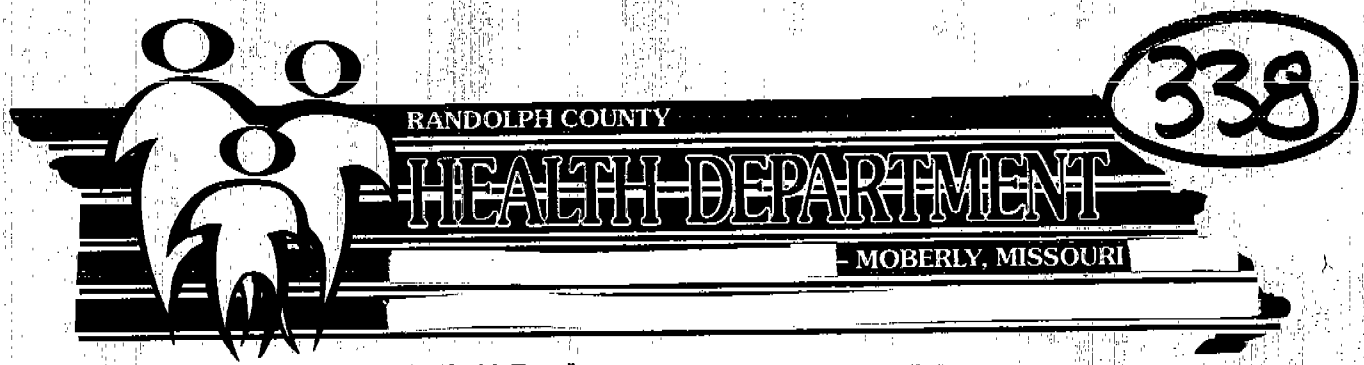
9. A plant-based, vegan diet with a healthy variety of uncooked fruit, vegetable, nuts, and seeds is the healthiest way to eat.

Thank you for your attention to my letter and God bless your progress!

Sincerely,

Theresa M Sharp

Theresa M Sharp



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Sydow 1 of 1

Good Guide Pyramid Reassessment Team
USDA Center for Nutrition Policy and Promotion
3101 Park Center Drive, Room 1034
Alexandria, VA 22302

AUG 30 2004

To Whom It May Concern:

As health educators for Randolph County Health Department, we are contacting you in support of the following revisions:

- Increase the suggested number of fruits and vegetables to 5 to 13 servings a day
- Assure that fruits and vegetables figure prominently in the revised graphic of the Food Guide Pyramid base to reflect the increased servings suggested.

Thank you for your consideration.

Sincerely,

Martha Sydow

Martha Sydow, RN, BSN
HCNEI Program Coordinator

Mary Strada

Mary Strada, RN
HCNEI Event Coordinator

postmarked 8/25/04

AN EQUAL OPPORTUNITY/AFFIRMATIVE ACTION EMPLOYER
All services provided on a non-discriminatory basis without regard to race, color, religion, national origin, sex, handicap or age.

IOWA STATE UNIVERSITY
OF SCIENCE AND TECHNOLOGY

Department of Food Science
and Human Nutrition

Ames, Iowa

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8/24/04

Food Guide Pyramid Reassessment Team
USDA Center for Nutrition Policy and Promotion
3101 Park Cetner Drive, Room 1034
Alexandria, VA 22302

Litchfield 1 of 3

AUG 30 2004

Dear Committee:

I would like to make the following comments regarding revisions to the Food Guide Pyramid on behalf of Iowa State University Extension.

Advantages and disadvantages of retaining current shape for graphic and other potential shapes to use as a representative of the overall Food Guidance System.
Maintaining the current graphic is critical to prevent consumer confusion and build on the fact that 80% of Americans recognize the Food Guide Pyramid. The pyramid graphic correctly depicts the recommended diet composition for healthy, adult Americans. The Food Guidance System was not designed to prevent nor treat specific diseases and cannot do so without becoming overly complex and cumbersome. In doing so, a large segment of the population would become confused and ignore the Food Guidance System entirely.

While graphic recognition is high at 80%, understanding and use of the current Food Guide Pyramid is limited. The single most important lack of understanding is that of appropriate portions or serving sizes. The current Food Guide Pyramid does not address portion sizes adequately. The graphic refers to number of servings; however, the consumer is required to search for additional information to determine what is considered a serving. In addition, the Food Guide Pyramid does not graphically represent individual servings – whole foods such as a loaf of bread, bunch of grapes, and whole turkey DO NOT depict appropriate servings. Why not graphically depict single serving sizes within the graphic and the appropriate number of servings recommended? For example, in the bread, cereal, rice and pasta group graphically depict 6-11 individual servings of bread, cereal, rice or pasta.

In light of the overweight/obesity epidemic it would seem prudent to not include high fat, high calorie (i.e. cake, pie, cookies, donuts) in the graphic of the Food Guide Pyramid. These foods should be moved from the bread, cereal, rice and pasta group to the fats, oils and sweets. Greater emphasis on whole grains needs to be clearly indicated by the graphics for this food group as well as the list of foods included in the group and any supporting materials

The graphic needs to place more emphasis on the lower caloric levels – most consumers do not achieve moderate activity levels, thus higher caloric levels. Highlighting food groups with higher sodium and fiber content would also be useful. It might be useful to change the background color of the graphic to highlight that a change as occurred.

postmarked 8/25/04

Usefulness of the proposed strategies to highlight both motivational/awareness and educational messages.
A graphic symbol with a slogan would be helpful to achieve brand name recognition for the Food Guidance System. Careful analysis of successful marketing campaigns used by industry and business entities could help identify key marketing strategies. Similar strategies and tactics should be employed for nutrition and health messages. The graphic should continue to depict easily identified general food guidance, do not separate the graphic from the educational message.

Advantages and disadvantages of the plan to individualize guidance in contrast to generalized messages.
Providing individualized recommendations is problematic. This would require the development of lengthy, complex materials, which can be difficult if not impossible for consumers to discern. Individualized recommendations are not appropriate, and not the intent of the Food Guidance System. For individual concerns, consumers should be seeking out a qualified health professional.

Advantages and disadvantages of the planned focus on core messages in contrast to use of a graphic to represent educational messages.
The Food Guidance System should provide the guidance on recommended diet composition within graphic representation. The ability to convey a concept in an easy-to-interpret and easy-to-understand graphic is important to a successful educational message. The additional issues and messages that have been proposed for incorporation into the Food Guidance System tend to apply to specific, discrete audiences, and not the general public. These are the messages should be addressed in supporting materials and individually by a qualified health professional. A learning opportunity and teachable moment is lost by not tying a basic nutrition message with the Food Guidance System graphic. The basic nutrition message depicted in the Food Guidance System should complement the Dietary Guidelines. For example, with the current Dietary Guidelines the messages would be: 1. Aim for Fitness, 2. Build a Healthy Base, and 3. Choose Sensibly.

Key components for effective interactive educational tools.
Key to any successful learning is the engagement/interaction of the learner with the material. The Interactive Healthy Eating Index and the Interactive Physical Activity Tool are appropriate for basic nutrition and physical activity messages. Although the messages may be more specific with respect to disease prevention than the Food Guidance System graphic, they will not be able to include complex medical conditions that some individuals may be experiencing.

However, providing individual guidance through a mass media channel such as CD ROM or World Wide Web is problematic from the standpoint of having complete and correct information upon which to base the individual guidance. There is also the element of liability to consider. Can a program delivered to the general public through these media possibly include every potential individual nuance that may impact nutrition recommendations? Providing individualized recommendations and personalized diets

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using CD ROM or World Wide Web technology is much like practicing medicine without seeing the patient.

Channels of delivery for the Food Guidance System.
The most efficient and effective ways to reach consumers will be a combination of print and internet-based materials. Although there has been an explosion of technology and internet-based information dissemination, segments of the population do not have access to this form of media. It is important, if not critical, to provide no- or low-cost print materials for agencies and professionals working with these populations. A careful assessment of accessing these populations needs to be done to evaluate appropriate channels to deliver the messages. With the advent of EBT cards and extended periods of enrollment for programs such as WIC and Food Stamps, other channels of contact must be found. Channels that might reach the target audience include grocery stores, gas/convenience stores, mass transit and television. A primary channel appears to be television and regardless of the expense is an important option to consider.

Sincerely,

Ruth Litchfield

Ruth E. Litchfield, PhD, RD, LD
State Nutrition Extension Specialist

Caryn Hartglass
Forest Hills, New York

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AUG 30 2004

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8/24/2004

Food Guide Pyramid Reassessment Team
USDA Center for Nutrition Policy & Promotion
3101 Park Center Drive, Room 1034
Alexandria, VA 22302

Dear Food Guide Pyramid Reassessment Team:

The present food pyramid along with high powered advertising are part of the reason we are the fattest and most unhealthy we have ever been in this country. Immigrants from other countries who adopt our way of eating become overweight and get many diseases not common in their countries. The change is long overdue. People are getting diseases in their youth that they used to get as they aged.

The American public should know the truth. We do not need just a few tweaks to the present pyramid. We do not need small changes that allow manufacturers to spin new products and consumers to gradually change their diets. The public needs guidance for changes NOW! The U.S.D.A. needs to get it right this time, our lives are depending on honest information. Individuals can make their own choices- just give us the truth. Enough studies are out there that prove the following proposed guidelines.

The TRUTH is needed- some will follow and some will not. We cannot change everyone. Some will eat what they want with no consideration of their health. People that want to improve are confused and need guidance, they need the truth. There are many diet books out there that do not work long term, this is why there are so many - because they do not work. With all of our intelligence and knowledge it is embarrassing to be the most overfed, overweight, malnourished country in the world. We have to stop letting the food industry and diet books, whose interest is dollars, affect the health of our nation.

This change in the food pyramid should not be influenced by any special interest food groups. It should be based on how we should eat to get the most nutrition out of our food choices. Our most nutritious foods are whole fruits, vegetables, nuts and seeds that do not come in packages. These contain a large amount of antioxidants, phytonutrients, omega 3 fatty acids, vitamins and minerals. These nutrients and antioxidants are protection for plants and will also protect us from chronic disease.

The nutrients we need to get from our food cannot successfully be obtained from a pill. The nutrients we get from food work synergistically with each other. To get enough of these nutrients we need to be eating a lot of fruits and vegetables.

The Following Pyramid Is Proposed

postmarked 8/26/04

The base should be the maintenance of energy, having an exercise program and controlling calories and weight.

The next level should be a variety of organic healthy whole carbohydrates such as fruit and vegetables having color: green, yellow, orange, red, blue, purple, with a large portion of this uncooked to preserve the nutrients.

The next level should be whole grains and starchy vegetables.

The next level should be legumes, beans, peas, sprouted nuts and seeds.

The next level should be limited amounts of fats from fruits, vegetable, nut and seed sources, with no more than 20-30% of our calories coming from these healthy fats.

6. A strong notation should be made on the pyramid of foods that should be eaten rarely and eventually eliminated completely from the diet. These should be: salt (no more than 1000 mg /day or less), sugar, high fructose corn syrup, and other processed sugars, refined grains, trans-fatty acids, and saturated fat (all animal products have saturated fat). All of these foods need to be eliminated completely from the diet, not cut in half as proposed by the USDA.

7. What professional in the health and nutrition field is telling us that we are deficient in saturated fat, sugar, refined grains, or trans-fats and need to get them into our diet? These foods cause inflammation and can lead to many of the chronic diseases that plague our society. If these unhealthy foods are eaten then there would not be enough calories left for the fruits and vegetables containing a large amount of antioxidants, phytonutrients, vitamins and minerals which can keep the body healthy.

8. If enough of the levels two through five are eaten to maintain energy and a healthy weight there will be more than adequate protein, folate, calcium, omega 3 fatty acids, and other nutrients in the diet. (refer to the WHO's recommendations for protein needs). Animal protein and fat are not necessary for a healthy diet.

9. A plant based vegan diet with a healthy variety of uncooked fruit, vegetable, nuts, and seeds is the healthiest way to eat.

I highly recommend using the book "Eat to Live" by Dr. Joel Fuhrman as a reference. Dr. Fuhrman would be an excellent person to consult with to come up with the ideal Food Pyramid. He can be reached at: 908-237-0200.

Sincerely,

Caryn Hartglass

Caryn Hartglass

To: Food Guide Pyramid Reassessment Team
USDA Center for Nutrition Policy & Promotion
3101 Park Center Drive, Room 1034
Alexandria, VA 22302

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AUG 30 2004

(Wood) 1 of 2

From: Paula Wood

Shoreline, WA
Ph:
Email:

The present food pyramid along with high powered advertising is part of the reason we are the fattest and most unhealthy we have ever been in this country. Immigrants from other countries who adopt our way of eating become overweight and get many diseases not common in their countries. The change is long overdue. People are getting diseases in their youth that they used to get as they aged. I see this in my work as a nurse.

The American public should know the truth. We do not need just a few tweaks to the present pyramid. We do not need small changes that allow manufacturers to spin new products and consumers to gradually change their diets. The public needs guidance for changes NOW! The U.S.D.A. needs to get it right this time; our lives are depending on honest information. Individuals can make their own choices- just give us the truth. Enough studies are out there that prove the following proposed guidelines.

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5. The next level should be limited amounts of fats from fruits, vegetable, nut and seed sources. With no more than 20-30% of our calories coming from these healthy fats.

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9. A plant based vegan diet with a healthy variety of uncooked fruit, vegetable, nuts, and seeds are the healthiest way to eat.

Regards,

Paula Wood
(original author; Jackie Graff, R.N., B.S.N.)

Food Guide Pyramid Reassessment Team
USDA Center for Nutrition Policy and Promotion
3101 Park Center Drive, Room 1034
Alexandria, VA 22302

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AUG 30 2004

Dalal / 1 of 4

Release No. 0281.04

Comments to the USDA Food Guidance System Reassessment Team

by Saurabh F. Dalal

Thank you for the opportunity to voice our comments in an area of tremendous importance: the update of the Food Guidance System to educate the public on healthy diets and lifestyles. These comments are presented on behalf of three non-profit organizations:
- The International Vegetarian Union (www.ivu.org)
- The Vegetarian Union of North America (www.ivu.org/vuna)
- The Vegetarian Society of DC (www.vsdc.org)

Vegetarian foods offer powerful advantages and are best for humans. So many studies have shown, and proven, the remarkable health benefits of a vegetarian diet. Animal products are the main source of saturated fats and the only source of cholesterol in the diet. Animal products contain no fiber and we know fiber helps reduce cholesterol levels. We claim that a well-planned, low-fat vegetarian diet – actually a vegan diet where no animal products whatsoever are consumed - is the best diet for humans. Preventing and actually reversing heart disease, preventing certain cancers, preventing and reversing diabetes, lowering blood pressure, and helping manage weight are some of the successes of such a diet, and there are many many more.

The American Dietetic Association in its 2003 position paper on vegetarian diets states: Well-planned vegan and other types of vegetarian diets are appropriate for all stages of the life cycle, including during pregnancy, lactation, infancy, childhood, and adolescence. Vegetarian diets offer a number of nutritional benefits, including lower levels of saturated fat, cholesterol, and animal protein as well as higher levels of carbohydrates, fiber, magnesium, potassium, folate, and antioxidants such as vitamins C and E and phytochemicals. Vegetarians have been reported to have lower body mass indices than nonvegetarians, as well as lower rates of death from ischemic heart disease; vegetarians also show lower blood cholesterol levels; lower blood pressure; and lower rates of hypertension, type 2 diabetes, and prostate and colon cancer.

The Unified Dietary Guidelines developed by the American Cancer Society, the American Heart Association, the National Institutes of Health, and the American Academy of Pediatrics call for a diet based on a variety of plant foods, including grain products, vegetables, and fruits to reduce the risk of major chronic diseases.

postmark 8/27/04

And your group, the USDA in its 5th ed of the Dietary Guidelines for Americans in 2000, states: "Vegetarian diets can be consistent with the *Dietary Guidelines for Americans,* and meet Recommended Dietary Allowances for nutrients." They give recommendations on meeting nutrient requirements for those who choose to avoid all or most animal products.

Support for vegetarian diets is established and strong. Contrast this to the trends with animal-based food today: high in saturated fats, trans fats, cholesterol, and food contaminants and the results are heart disease, cancers, strokes, diabetes, obesity, and food illnesses.

If the Food Guide Pyramid is to continue to emphasize specific nutrients, as in the cases of calcium and protein, represented by the Milk (etc) Group and Meat (etc) Group, then the updated pyramid and graphic could demonstrate the above important positions by illustrating plant foods and meat/dairy alternatives more prominently. The groups should be renamed something akin to the Calcium (etc) Group or the Protein (etc) Group. Not only can plant products provide calcium and protein along with all the nutrients needed, they are typically lower in saturated fats and contain no cholesterol. Plant foods are then indeed better sources.

The Food Guide Pyramid could alternatively be updated without emphasizing food groups for any specific nutrient like for calcium or protein. Then a broad variety of plant foods consisting of whole grains, whole fruits, vegetables, legumes, nuts, seeds, and fortified cereals and juices can be depicted to help ensure a healthy, well-balanced diet – more in-line with the way the lower two levels of the pyramid are today with the Bread (etc) Group as well as the Fruit Group and Vegetables Group. An emphasis on consuming a wide variety of plant foods would take care of all nutrients being included in the diet.

The key is removing the emphasis on animal derived foods in favor of plant foods, with a well-represented vegan diet being optimal.

A few reminders on nutrition and health specifics:

1. A diet drawn from varied plant sources easily satisfies protein requirements, without the potential for protein excess. Plant sources provide all essential amino acids, even without intentional combining or "protein complementing" as long as calorie intake is adequate. Good protein sources include cooked beans, tofu, soy yogurt, tempeh, seitan, nuts, seeds, and whole grains. Soy protein has been shown to be nutritionally equivalent in protein value to proteins of animal origin.

2. Many plant-based sources of calcium exist. Examples are fortified soy or rice milk, fortified juices like orange, cranberry, or apple juice; dark leafy greens like collard greens, mustard greens, turnip greens, kale, broccoli; blackstrap molasses; tofu processed with calcium sulfate, and tempeh. The more extensive range of dietary sources of calcium from plant foods would increase intakes of boron, vitamin K, and magnesium, helping reduce the risk of osteoporosis.

Let's not forget that calcium absorption and bio-availability from these foods has been shown to be excellent, better than dairy foods.

Also very important is that each serving of these plant-based sources of calcium also counts towards choices from one of the other food groups, e.g. cooked leafy green vegetables count as a serving from the calcium-rich foods group AND in the vegetable group. This is an added benefit, showing the versatility and benefit of plant-based foods.

3. Animal products force calcium out of the body and so promote bone loss. Again well-planned vegetarian diets can yield a lower risk for osteoporosis.

4. Iron is plentiful in beans, whole grains, and fruits.

5. Flax seeds are an excellent source of omega 3's whereas fish and consumption of other sea animals have the downside of potential mercury content, other contaminants, and significant cholesterol.

Now a few broad observations:

1. Eating patterns are changing and the diets of a great many are more plant-based than a decade ago, including vegetarians (with a proportionately high % of vegans), and many quasi-vegetarians. There is tremendous interest around vegetarianism and the USDA guidelines must address the needs of those moving away from animal products.

2. The eating patterns of many people who do not use milk and dairy products, for ethnic, health, and/or ethical reasons, need to be reinforced by guidance that is more comprehensive in terms of alternatives to animal foods.

3. In the greater societal context, what's better for the individual in terms of vegetarian foods is also what's best for the health of the country and planet. The key characteristics are natural, healthy, sustainable, and economically viable. We must look at our system of food production with its enormous inefficiencies and the tremendous toll it takes on people, increasingly scarce resources, and the living world around us. Let's favor the 12-16 pounds of grain instead of the 1 pound of beef that results; let's favor 25 gallons of water for 1 pound of wheat rather than over 5000 gallons needed for 1 pound of beef; let's favor 40,000 pounds of potatoes on 1 acre of land instead of 250 pounds of beef on that same acre; let's favor soybeans that are 38 times more energy efficient than beef – the numbers are truly this staggering and these are just a few facts to give an indication.

We represent many people, growing greater and greater in numbers, throughout this city, and this country as well as around the world that believe that a simpler, wholesome, well-planned, vegetarian diet that consists of no animal products is the right type of guidance to establishing healthy eating habits through the daily selection of foods. Let's make sure we're doing our utmost to make the lives of our citizens far better and also recognizing and improving on the way we impact the world, and in turn, ourselves.

We urge the Reassessment Team to incorporate even more vegetarian foods, specifically a well-planned, low-fat, vegan diet, with its remarkable benefits in all respects, as you update the Food Guidance System including the Pyramid, and the Dietary Guidelines for Americans.

Dalal 4 of 4

THANK YOU FOR YOUR CONSIDERATION.

Sincerely,

Saurabh F. Dalal

Secretary, The International Vegetarian Union (www.ivu.org)
Secretary, The Vegetarian Union of North America (www.ivu.org/vuna)
President, The Vegetarian Society of DC (www.vsdc.org)

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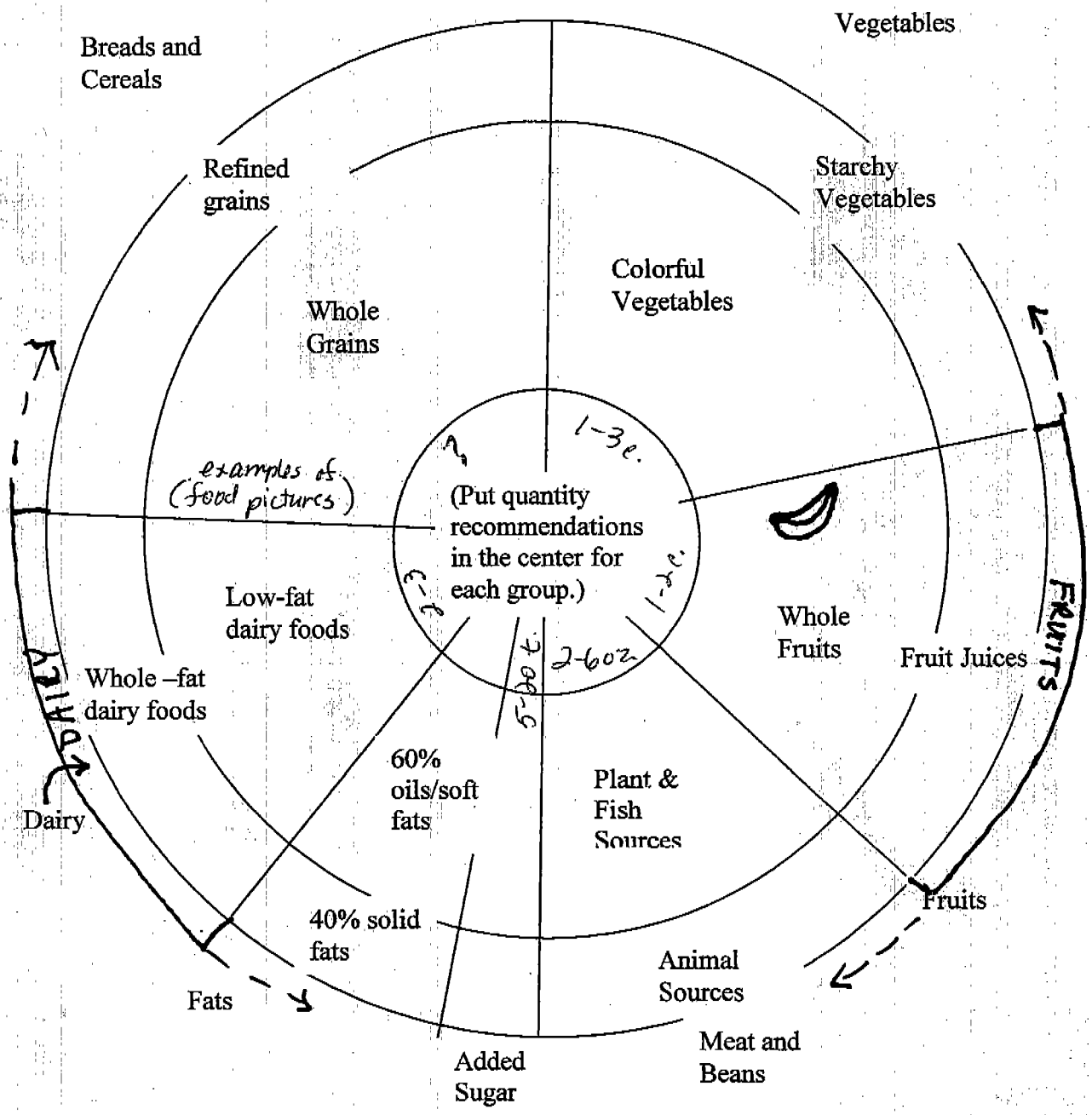
Suggestion for a Food Guide Model

Aim For Healthy Food Choices
with the
Food Guide Target

May 1 of 1

Univ. of Minnesota
Extension Service



Jill May

postmarked 8/26/04

August 20, 2004

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Nowak 1 of 2

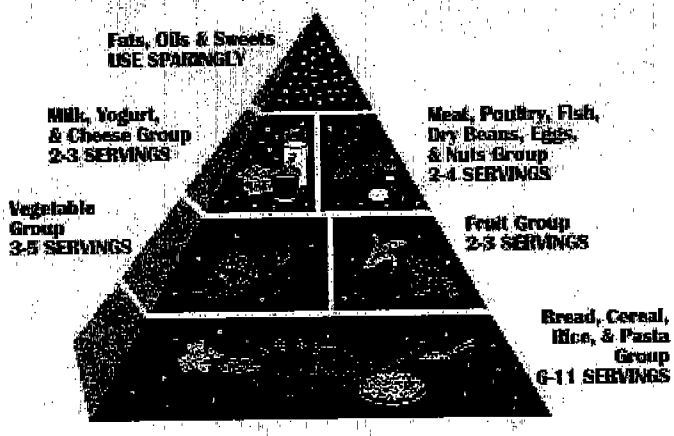
AUG 30 2004

Food Guide Pyramid Reassessment Team
USDA Center for Nutrition Policy and Promotion
3101 Park Center Drive, Room 1034
Alexandria, VA 22302

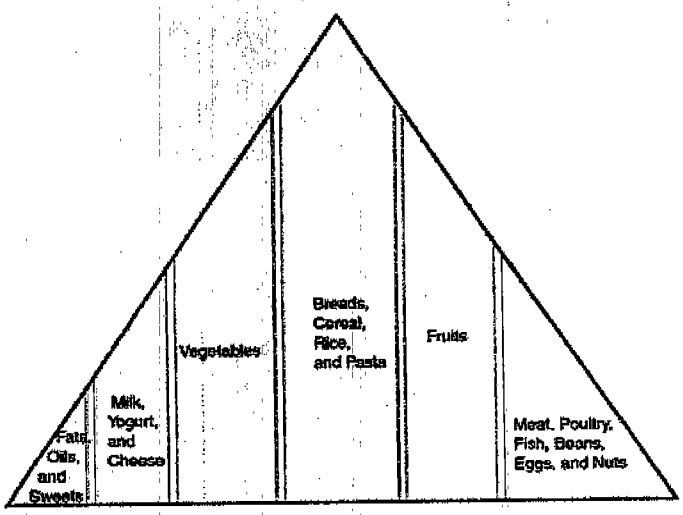
Dear Sir or Madam:

I would like to submit to you my ideas on the redesign of the Food Guide Pyramid. I agree with statements made that the previous marketing and recognition of the pyramid is extremely valuable and should not just be thrown away. However the fact that the foods that should be consumed less are in a position of prominence on the peak of the pyramid I believe is misleading.

Therefore, I propose that you keep the same triangular shape yet rearrange the contents to change the focus of the food within. To illustrate, instead of having a four-tiered system where the major foods are at the bottom and the foods to eat sparingly are given prominence at the top like is illustrated in the current chart:



I think that it would be beneficial to arrange the figure so that the foods that should be highlighted and eaten more are in a centralized location and foods such as fats, oils and sweets are at the bottom in less prominent positions.



postmarked 8/25/04

Nowak / 2 of 2

August 20, 2004

Another feature I think that would be beneficial is to put this icon which people are familiar with on food labeling by the nutrition information. Use the graphic that people are familiar with to show them how much of a food group they are actually eating with each serving of that food. For instance, you might have the nutrition information label say what the service size of the food is then have the new icon showing what percentage of the daily requirement/allotment is filled by that food.

So if something fulfils one of the 3 servings of milk, yogurt or cheese, then that column on the new food pyramid would be shaded one third of the way with a darker color. One of the biggest things keeping people from following the food guide is that it is too obscure to them. I consider myself as someone who tries to eat healthy and if you asked me what a serving of bread was or a serving of dairy, I wouldn't know. But if I saw that icon on every item of food that I buy and the chart filled in saying that the serving size on the food was 1/3 or ¼ what I should eat for the day, I would start to get a feeling for what I should eat.

Thank you for your consideration, I hope my thoughts are useful in your changes.

Sincerely,

Joshua Nowak

1/

August 27, 2004

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AUG 30 2004

To:

Food Guide Pyramid Reassessment Team

USDA Center for Nutrition Policy And Promotion

3101 Park Center Drive, Room 1034

Alexandria, VA 22302

Keep 1 of 3

I am very much in favor of 80 percent raw vegan living foods, especially those foods as advocated by Jackie Graff in her position statement written by her (see below). Referring to No. 5 level (see below) I would recommend as low as 15 to 20 percent of calories that should come from uncooked, not-so-dry healthy fat sources such as avocados, durians, and baby coconuts and their core liquid. Only a handful of commercial nuts or a tablespoon or two of seeds would be accepted infrequently. Nuts not yet dehydrated anddirectly picked from trees can be eaten more during the season.

As written by Jackie Graff of Roswell, GA:

The present food pyramid along with high powered advertising are part of the reason we are the fattest and most unhealthy we have ever been in this country. Immigrants from other countries who adopt our way of eating become overweight and get many diseases not common in their countries. The change is long overdue. People are getting diseases in their youth that they used to get as they aged. I see this in my work as a nurse.

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postmarked 8/27/04

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3/

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Submitted by

Dean W. Keefe

Dean W. Keefe

Burke VA

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Ormsby 1 of 4

AUG 30 2004

July 22, 2004
Shizuoka, Japan

To the Food Guide Pyramid Reassessment Team

Dear Sirs and Madams,

I am writing to recommend a flexible or multiple-pyramid approach to dietary recommendations. In particular, I have benefited and seen how others have benefited by the approach recommended by Dr. Robert Atkins. I'm certain you are well aware of this approach. In fact, I am writing a book in Japanese to introduce this approach to Japan, where diabetes is increasing rapidly. One nutritionist here told me that only 3% of diabetics in Japan respond well (i.e., show improved health and find it comfortable enough to be able to continue) to calorie restriction following the current carbohydrate-heavy pyramid. Meanwhile, my husband, who used to be severely diabetic, has improved greatly with a moderate degree of carbohydrate restriction. I am a marathoner and find even severe carbohydrate restriction in no way impedes my performance. I used to follow the current pyramid's high-carbohydrate suggestions, but hit a metabolic wall and found that in order to keep from gaining weight I had to restrict calories to the point that I was miserable and frankly undernourished. The nutrient-dense foods I eat under the Atkins approach fulfill my needs without provoking hunger, and allow me to restrict calories to the degree I currently need.

On the other hand, I know many strict vegetarians who are clearly healthy and happy with that approach. People have differing metabolisms and philosophies, and have different food needs.

I think, however, that you will see more and more people turning to carbohydrate restriction as the only solution to their problems. My inability to metabolize carbohydrates well is not an inherited disorder. It's environmental.

My family have all been slender except for those working in environments with high levels of electromagnetic radiation: my father at the

airport, who slimmed down when he retired; cousins who got into computers early on. These same people are also showing a high incidence of diabetes. There exists a body of empirical evidence of effects from electromagnetic fields on metabolism both in vivo and vitro. Please see the enclosed abstracts.

Basically, because of IT, we are all subjected now to the kind of environment that used to be encountered only at airports and military facilities. I think this is one factor accounting for the world-wide increase in obesity during the past decade. The only thing we can do about it is educate people one-by-one and build a consensus for improvement. But the impediments to this are enormous. Consider how many companies would be commercially liable and how many governments would be criminally liable if biological effects were acknowledged. I wouldn't hold my breath.

It would be politically more expedient to acknowledge the Atkins approach, thus giving people another way to salvage their good health, without the sticky problem of acknowledging effects from electromagnetic fields.

Good health to you!

Patricia A. Ormsby

Ormsby 3 of 4

[Electric-words MAIN INDEX]

EMF Health-effects Research

Note: All research, both independently-funded and industry-funded, is now included in this section

Phasic behavioral and endocrine effects of microwaves of nonthermal intensity

Navakatikian MA, Tomashevskaya LA,
In "Biological Effects of Electric and Magnetic Fields, Volume 1" D.O. Carpenter (ed) Academic Press, San Diego, CA, 1994, pp. 333-342.

Microwaves at nonthermal levels are able to induce behavioral and endocrine changes at low power densities (0.01-0.1 mW/cm^2).

Our studies have demonstrated several phases of inhibition and activation. We suggest that inhibition of behavior by microwaves has many mechanisms depending on the strength and duration of exposure, and most inhibitory effects from direct actions on the nervous system.

Activation, on the other hand, is correlated well with decreases in serum concentrations of testosterone and insulin. CW microwaves, however, have no influence on the secretion of insulin.

ABSTRACTS INDEX GENERAL EMF/CELLPHONE INDEX

INDEX OF PARTICIPANTS

Please e-mail comments, information and updates to Stewart Fist

[Electric-words MAIN INDEX]

Ormsby 4 of 4

EMF Health-effects Research

Note: All research, both independently-funded and industry-funded, is now included in this section

Disturbances of glucose tolerance in workers exposed to electromagnetic radiation

Bielski J, Sikorski M,
Med Pr 47(3):227-231, 1996.

[Article in Polish]

The study group was composed of 50 workers exposed to electromagnetic radiation (radiowaves). Out of them 31 persons (62%), employed mostly in the risk zone, showed irregular glycaemia after oral administration of 75 g of glucose.

At normal blood sugar before breakfast, the glycaemia level was high following administration of glucose and it did not return to starting values after 2 hours. After 30 min from glucose administration the level accounted for 155 mg%, after 60 min-180 mg%, after 90 min-153 mg% and after 120 min-124 mg%, on average.

In 10 persons (32%) with glucose tolerance disturbances, disorders in bioelectric activity of the brain (abnormal EEG record) were observed.

ABSTRACTS INDEX GENERAL EMF/CELLPHONE INDEX

INDEX OF PARTICIPANTS

Please e-mail comments, information and updates to Stewart Fist

B47

Julia Jackson

Collegeville, PA

Jackson
1 of 1

AUG 30 2004

Food Guide Pyramid Reassessment Team
USDA Center for Nutrition Policy and Promotion
3101 Park Center Drive, Room 1034
Alexandria, VA 22302

To Whom It May Concern:

I would like to see some sort of rating of fullness factor to calories associated with food. So, for example, one end of the scale would be soda, which has lots of calories, but doesn't fill you up at all. Whereas something like peanuts has lots of calories but also fills you up.

Sincerely,

Julia Jackson

Postmarked 8/26/04

BETH PREISS

Washington, DC

348

Preiss 1 of 1 AUG 30 2004

August 25, 2004

Food Guide Pyramid Reassessment Team
USDA Center for Nutrition Policy and Promotion
3101 Park Center Drive, Room 1034
Alexandria, VA 22302

The food pyramid is a widely recognized tool for promoting healthy food choices, and I appreciate this opportunity to provide comments to make it even more accurate and effective.

- The name "milk, yogurt, and cheese" is misleading. Healthier sources of calcium such as leafy green vegetables should be included and emphasized, and the group should be renamed.

- Similarly, the "meat, poultry, fish, dry beans, eggs, and nuts" group should focus on the healthier plant-based sources of protein – beans and nuts – in both text and graphics.

- Continue to recommend a diet with plenty of vegetables and fruit and low in saturated and trans fat and cholesterol. Emphasize whole grains, fruit, and vegetables over processed foods.

As more Americans choose vegetarian and vegan diets to protect their health, the animals, and the planet, it is vital that the food pyramid fully reflect the options and benefits of a plant-based diet.

Best regards,

Beth Preiss

postmarked 8/27/04

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AUG 30 2004

Ferracuti
1 of 1

August 25, 2004

Paula Ferracuti

Toronto, Ontario
Canada

August 25, 2004

Food Guide Pyramid Reassessment Team
USDA Center for Nurtition Policy and Promotion
3101 Park Center Drive, Room 1034
Alexandria, VA 22302

To Whom it May Concern,

My name is Paula Ferracuti and I'm writing to share my thoughts on the USDA Food Guide Pyramid. My comments are based on my experience controlling carbohydrates, which have helped me to regain control of my health and my weight.

I have tried many diets and have hit a plateau on all of them leading me to the next one to find results. All of them left me craving more food and feeling hungry as I consumed far too many carbohydrates. Two weeks ago I started Atkins and immediately felt satisfied with the amount and content of food I was eating. I lost four pounds after eleven days and I am looking and feeling great as I am five pounds away from my goal weight of 116 pounds. I no longer crave sugar and enjoy low carb products on the market.

My comments are as follows: I believe that the current food guide pyramid has left me tired, cranky and craving sugar. Even when I worked out vigorously for an hour or more 5 days a week, I would not lose weight. Atkins has changed my life. I see something valuable to pass onto my own children in the future.

Please take these comments into consideration as you re-evaluate and redesign the Food Guide Pyramid.

Sincerely,
Paula Ferracuti

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AUG 30 2004

Se used 1 of 2

Washington, DC
August 24, 2004

Food Guide Pyramid Reassessment Team
USDA Center for Nutrition Policy & Promotion
3101 Park Center Drive, Room 1034
Alexandria, VA 22302

Dear Madam or Sir:

I am writing in regard to the pending revision of the food pyramid. I am a private citizen who grew up on a farm in Kansas that supported a beef feedlot with very common crops, such as corn, milo, and wheat. I am 44 years old, and for the past two years have eaten a raw vegan diet that has supported the healthy revitalization of my body that has left me weighing 160 pounds, at a height of 5'11". In my last very thorough physical exam, all of my test results came back in the ideal range. For example, my blood pressure was 70 over 40. My physical condition is nearly ideal, and I have tremendous energy and sleep soundly every night. Most people who see me assume I am in my early 30s or late 20s, and I continue to look younger and feel better every year. I lift weights, run, and do yoga on a regular basis.

In contrast, most of my family continues to consume a standard American diet that in most ways follows the current food pyramid guidelines. My brother, who is 39, is about 75 pounds heavier than I am, and looks much older than me. My father (still a farmer) weighs about 100 pounds more than I do, and although he is strong as a horse, will not be able to function well in old age with his heavy weight. My mother suffers from extensive blockage of her arteries, heart disease, and diabetes. All of my first cousins my age, except one, on both sides of my family are overweight or obese, and their bodies are aging remarkably. All have refused or found it difficult to make significant changes in their diet that even mainstream medical studies have shown would radically improve their health and well-being.

USDA's current food pyramid provides little guidance about foods that are the most nutritious and promote good health. Instead, it promotes the interests of various industry groups without regard for the health of the American people. As a result, our national health is seriously affected, and with it, our national economy, as more and more dollars are poured into unproductive health care solutions to our self-inflicted medical problems caused fundamentally by our unhealthy diets and lifestyle choices.

As a result, we are on a collision course with a decline of our nation, as individuals at an ever younger age develop significant medical problems that require ongoing and expensive treatment that our nation cannot afford to support on such a broad basis. Our food supply is dangerous, causes malnutrition, and is killing us.

The American public should know the truth. We do not need just a few tweaks to the present pyramid. We do not need small changes that allow manufacturers to spin new products and consumers to gradually change their diets. The public needs guidance for changes NOW! The U.S.D.A. needs to get it right this time, our lives are depending on honest information. Individuals can make their own choices- just give us the truth. Enough studies are out there that prove the following proposed guidelines.

The TRUTH is needed – some will follow and some will not. We cannot change everyone. Some will eat what they want with no consideration of their health. People that want to improve are confused and need guidance, they need the truth. There are many diet books out there that do not work long term, this is why there are so many- because they do not work. With all of our intelligence and knowledge it is embarrassing to be the most overfed, overweight, malnourished country in the world. We have to stop letting the food industry and diet books, whose interest is dollars, affect the health of our nation.

This change in the food pyramid should not be influenced by any special interest food groups. It should be based on how we should eat to get the most nutrition out of our food choices. Our most nutritious foods are whole fruits, vegetables, nuts and seeds that do not come in packages. These contain a large

postmarked 8/27/04

amount of antioxidants, phytonutrients, omega 3 fatty acids, vitamins and minerals. These nutrients and antioxidants are protection for plants and will also protect us from chronic disease.

The nutrients we need to get from our food cannot successfully be obtained from a pill. The nutrients we get from food work synergistically with each other. To get enough of these nutrients we need to be eating a lot of fruits and vegetables.

The following food pyramid is proposed:

1. The base should be the maintenance of energy, having an exercise program and controlling calories and weight.
2. The next level should be a variety of organic healthy whole carbohydrates such as fruit and vegetables having color: green, yellow, orange, red, blue, purple, with a large portion of this uncooked to preserve the nutrients.
3. The next level should be whole grains and starchy vegetables.
4. The next level should be legumes, beans, peas, sprouted nuts and seeds.
5. The next level should be limited amounts of fats from fruits, vegetable, nut and seed sources. With no more than 20-30% of our calories coming from these healthy fats.
6. A strong notation should be made on the pyramid of foods that should be eaten rarely and eventually eliminated completely from the diet. These should be: salt (no more than 1000 mg /day or less), sugar, high fructose corn syrup, and other processed sugars, refined grains, trans-fatty acids, and saturated fat (all animal products have saturated fat). All of these foods need to be eliminated completely from the diet, not cut in half as proposed by the USDA.
7. What professional in the health and nutrition field is telling us that we are deficient in saturated fat, sugar, refined grains, or trans-fats and need to get them into our diet? These foods cause inflammation and can lead to many of the chronic diseases that plague our society. If these unhealthy foods are eaten then there would not be enough calories left for the fruits and vegetables containing a large amount of antioxidants, phytonutrients, vitamins and minerals which can keep the body healthy.
8. If enough of the levels two through five are eaten to maintain energy and a healthy weight there will be more than adequate protein, folate, calcium, omega 3 fatty acids, and other nutrients in the diet. (refer to the WHO's recommendations for protein needs). Animal protein and fat are not necessary for a healthy diet.
9. A plant based vegan diet with a healthy variety of uncooked fruit, vegetable, nuts, and seeds is the healthiest way to eat.

Please consider this proposal if only for the well-being of our children and grandchildren. Even if you cannot fathom making these healthy food choices for yourself, kids who are raised on healthy foods and are not exposed to unhealthy alternatives thrive remarkably and have no interest in the junk food that other kids subsist on. Their lives will be immeasurably improved as a result.

Thank you for your consideration of this proposal.

Sincerely,

Steve Seuser

Steve Seuser

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August 25, 2004

To: The Food Guide Pyramid
Reassessment Team
USDA

Rochelle
1 of 1

AUG 30 2004

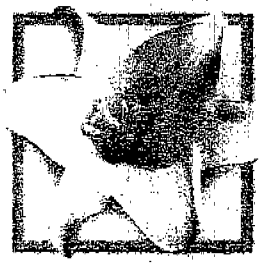
From: Paula Rochelle

Saratoga, CA

Please create a pyramid based on science, not politics and special interest lobbies.

Have a protein group which includes vegetable sources, and a "calcium" group with various vegetable as well as dairy sources of calcium.

Do not let the meat and milk lobbies create a meaningless pyramid with no scientific basis.



Paula Rochelle

postmarked 8/26/04

Food Guide Assessment Team:

U.S. Center For Nutrition Policy and Promotion
3101 Park Center Drive
Alexandria
Va. 22302

352

With 6-11 you're Twice as Right

By Helen Andrews

Falmouth
Me.

Andrews
OF

AUG 30 2004

Vaillancourt 1 of 2 AUG 30 2004 asf

8/24/04

To: Food Guide Team

353

FR: Nancy Vaillancourt

Ellijay, GA

postmarked 8/24/04

Dear Team,

Please find some way to bring attention to the over abundance of salt in EVERY THING!! in canned products, boxed prepared foods, frozen prepared dinners, crackers, cookies, canned & dried soups.

It is my understanding that the body needs between 1100 - 2500 Mg of salt per day.

I have had to watch very carefully my salt intake for many years, trying to keep it at the 1100 down to 300 mgs. It is very difficult. I make

all my meals as salt free as possible - soups, fresh or frozen veggies only - no meats that have been injected with "chicken broth" (just more salt & preservative)

No salted chips, pretzels, nuts, etc.

Salt needs to be a no-no along with sugar, fats & the white flour products.

Good Luck with your project.

Nancy Vaillancourt

Weaver File

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A note from
Wesley Weaver
Anne P. Weaver

AUG 30 2004

On your pyramid in the meat group –
I hope you will emphasize healthier sources of protein such as – plant based sources like beans & nuts.

Change the milk group to Calcium group and include dark green leafy vegetables on of the healthiest sources of Calcium.
thanks!

Post marked 8/26/04

Mr. & Mrs. W. Weaver
Winston Salem, NC

Wesley M Weaver
Anne P. Weaver

Kraft Foods

Thompson | 1 of 3

J. Edward Thompson
Chief Food Law Counsel

AUG 30 2004

August 27, 2004

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VIA OVERNIGHT MAIL

Food Guide Pyramid Reassessment Team
USDA Center for Nutrition Policy and Promotion
3101 Park Center Drive, Room 1034
Alexandria, VA 22303

RE: Proposal for Food Guide Graphic Presentation and Consumer Education Materials; Opportunity for Public Comment
69 *Federal Register* 42030 (July 13, 2004) Notice

Dear Sir/Madam:

With net revenues for 2003 exceeding $31 billion, Kraft Foods Global, Inc. (Kraft) is the largest food manufacturer in North America and the second largest worldwide. Our well-known brands are found in more than 99% of all U.S. households and are sold in 150 countries around the world. The consumer trust we have built over the last 100 years is priceless and critical to our company's continued success. As part of our ongoing commitment to consumers, we have provided public nutrition communication programs to advance consumer knowledge for the last three decades. Accordingly, Kraft has a very substantial interest in the development and implementation of effective nutrition communication tools that provide meaningful information to help American consumers achieve their personal dietary goals.

Kraft is committed to health & wellness, and as a result, the company is implementing a wide-ranging program to improve the nutrition profile of the portfolio, while providing consumers with more information to help them make informed food and activity choices. Our communication efforts and nutrition education materials have been based on the guidance presented in Dietary Guidelines for Americans and the Food Guide Pyramid. These materials help consumers make informed choices and see how specific foods can fit into a nutritious diet. Furthermore, health professionals and educators request nutrition education materials from Kraft for use with their clientele. We appreciate the opportunity to share some of our insights from consumer use of these materials to facilitate the development of the proposed food guidance system.

The Food Guide Pyramid is a useful graphic tool

The food industry, nutrition educators, teachers, and the media have used the Food Guide Pyramid as a tool to graphically illustrate dietary recommendations since 1992. The

Postmarked 8/27/04

Thompson 2 of 3

shape of the food guidance system should be a visual reinforcement of the recommended proportion of food choices. Since the Pyramid seems to be a shape that most effectively illustrates the recommended types and amounts of food groups, we see no reason to change shape, especially given the widespread recognition of the Pyramid. However, we believe there is an opportunity to enhance and clarify the core messages. Most importantly, consumers need clarification on how much they should eat from each food group, based on age, sex, and activity level. In particular, it appears that most consumers do not understand that food guidance servings, as depicted in the Pyramid, are designed to promote selection of foods with similar nutrient content within a food group (i.e., a "serving" of milk is 1 cup, which has the same amount of calcium as a 1.5 ounce "serving" of natural cheese or a 2 ounce "serving" of process cheese). We suggest that food guidance "servings" should be listed in common household measures (cups or ounces) to avoid ambiguity over what constitutes a "serving."

There is a need for personalized, interactive tools

Given the complexity of messages the food guidance system attempts to convey, we fully support the development of personalized, interactive tools that consumers can use to identify appropriate food choices based on their age, sex, weight, height, level of activity and personal preference. The "one-size fits all" approach for nutrition guidance may not be most effective or motivating to consumers.

Personalization can help consumers internalize nutrition messages, especially if the information is easily accessible and inviting. We offer many interactive tools on our web site (www.Kraftfoods.com) that engage consumers and allow more active participation than simply reading static articles. For example, in one month we had 90% more customers use our BMI calculator tool (where consumers enter their height and weight and their BMI is calculated and displayed) than those who read an article on healthy body weight posted on our web site; likewise, there are 99% more page views for the Personalized Meal Planner than page views for articles about the Food Guide Pyramid or Dietary Guidelines for Americans on our web site.

In addition to personalization, customization to demographics is very important. For consumer messages to be actionable, they need to be available in the appropriate language, they should be culturally relevant, and applicable to consumers of different age, sex and activity levels, as well as applicable to consumers with different degrees of knowledge and interest in overall health and wellness. Therefore, we support the use of twelve targeted calorie patterns that account for the different nutrition and activity needs for children, adults and senior citizens. If this broader approach is used in conjunction with an interactive tool, consumers will be assigned to the appropriate calorie pattern and can obtain a recommended calorie level and set of food group servings that appear personalized. To make the most impact, this tool should allow consumers to plan and rate their food choices based on their personal taste preferences.

The following section lists some suggestions for an interactive tool:

Thompson 3 of 3

- Allow consumers to compare the shape of their actual daily food choices to the recommended shape of the Pyramid to provide the consumer with visual feedback. For example, if a consumer selects too many fats/sweets, then the Pyramid would be inverted; if the consumer chooses too many servings of meat or dairy, then the Pyramid would bulge in the middle. Thus, the consumer can literally see that their food choices should be adjusted to correspond with recommended servings from the various food groups.
- Allow consumers to build a plate visualizing their actual food choices for the meal or day. Applying the general rule that 2/3^{rds} of the plate should be plant-based and 1/3^{rds} animal based, the consumer can see at a glance if they've achieved the recommended ratio.
- Include an activity tracker that allows consumers to visualize how their food patterns change based on physical activity.. Since the goal is to encourage consumers to exercise more, they could see how physical activity earns them flexibility in extra food choices through "discretionary calories," without exceeding their total caloric intake.

Conclusion

Kraft believes the interactive tool is a step in the right direction, but it is only as good as the guidance system itself. The core messages should apply to the population at large, and the interactive tools should reinforce these messages and apply them on an individual basis. While the interactive tools will work well for those consumers who have computer access, the materials should also be made available in a variety of formats so all consumers have equal access to this important information.

Kraft acknowledges the critical role the government plays in translating strong science-based findings into consumer-focused dietary advice and nutrition education. The food industry, along with many credible organizations and professionals, rely on authoritative government bodies to develop the foundation upon which we can develop additional nutrition communication and education materials. We encourage the timely completion of the food guidance system and its wide dissemination in a well-tested communications campaign.

Respectfully submitted,

J. Edward Thompson

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Brooklyn, NY
August 26, 2004
Food Guide Pyramid Reassessment Team
USDA Center for Nutrition Policy and Promotion
3101 Park Center Drive Room #1034
Alexandria, VA 22302

AUG 30 2004

Sargent 1 of 1

To Whom It May Concern:

It has come to my attention that the USDA is currently reassessing its food guide pyramid for the first time in twelve years. It has also come to my attention that the USDA is encouraging public opinion. I thought this would be a good opportunity for me to voice my opinion in a subject that is very important to me.

It is well known that the National Cattleman's Beef Association, as well as the Poultry Times and American Meat Institute, have been pushing to fill the pyramid with more meat; claiming that American youth does not eat enough meat. There is also an announcement on the Atkins Diet web site encouraging its followers to write in and promote a meat-based diet. I feel compelled to add my voice in protest.

I would encourage you to change the "Dairy" section to a "Calcium" section, which includes dark green vegetables. Dark green vegetables such as spinach, escarole and broccoli have high amounts of calcium without the fat, pus and bacteria found in milk. I would also encourage you to change the "Meat" section to a "Protein" section, which contains tofu, seitan and tempeh. These protein rich foods offer the same health benefits of meat without the risk of heart disease, high cholesterol and arteriosclerosis.

I hope you will weigh all the options, and follow the facts, to make the most health conscious food pyramid yet.

Best regards,
Lindsay Sargent

Pratt Institute

postmarked 8/27/04

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August 27, 2004

South Dennis, MA

AUG 30 2004
asf

To

The Food Pyramid reassessment team

Sidhartha
1 of 1

Dear Sir/Madam,

I would like to express my comments/suggestions for the final version of food pyramid guide being prepared as part of nutrition guidelines for the public. Being a physician myself, I had seen tremendous health benefits in my patients when they switch to a diet rich in whole grains, plant-protein sources like nuts, legumes & vegetables and when they reduce the intake of animal – protein and dairy products.

Based on increasingly available medical data that support the beneficial effects of fiber rich diet (which includes fruits, vegetables & whole grains and which excludes meat & dairy), I would like to suggest a food pyramid guideline that includes whole grains, nuts and vegetables as alternative protein sources and use of green leafy vegetables as an alternative option to dairy for calcium source in the diet.

Thank you,

Yours truly,

Kumara Sidhartha, MD

South Dennis, MA

postmarked 8/27/04

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August 26, 2004

The Food Guide Pyramid Reassessment Team
USDA Center for Nutrition Policy and Promotion
3101 Park Center Drive Room #1034
Alexandria, VA 22302

Coyne for

Hello,

I am writing with suggestions for changes in the Food Pyramid. My first suggestion is that you include sources other than cow's milk in the calcium rich food group. As someone who does not drink milk emphasizing foods such as kale, beans, tofu, collard greens and almonds would help make the Food Pyramid much easier to use and relevant to my daily diet.

Also, I hope that you will increase the number of suggested servings of fruits and vegetables. Most Americans do not get the recommended five servings of fruit each day and emphasizing the importance of fruit and vegetable consumption should help to raise the amount of fruits and vegetables the average American eats.

Thank you for your time and consideration,

Kevin Coyne

Kevin Coyne

Brighton, MA

postmarked 8/22/04

Friday, August 27, 2004

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Kennedy
1 of 1

AUG 30 2004
aff

Dear Food Guide Pyramid Reassessment Team,

I am writing to urge you to consider the well documented benefits of a vegan diet when developing and promoting your nutritional literature. I understand that there are powerful industries that are lobbying you to feature animal based foods as the road to wellness. Just today I had the opportunity to tour a local hospital and the lab technician showed us a container full of Gall stones, all the result of a high animal fat diet.

I strongly want to encourage you to emphasize healthier plant-based sources of protein such as beans and nuts in their "meat" group, or better yet, change the name. Perhaps a change of the name the "Milk" group to the "Calcium" group and feature leafy green

I urge you to use the scientific research, such as Dean Ornish's work to base your nutritional advice rather than supporting industries that sell heart disease, diabetes, and cancer.

Sincerely,

Becky Leib Kennedy MA

San Diego, CA

postmarked 8/27/04

(360)

Mayagüez, PR

August 26, 2004

Macpherson-Sanchez
1 of 2

AUG 30 2004
asf

Food Guide Pyramid Reassessment Team
USDA Center for Nutrition Policy and Promotion
3101 Park Center Drive, Room 1034
Alexandria VA 22302

Dear Reassessment Team:

The Food Guide Pyramid was developed in 1992 and has been used by many people to teach their audiences or train their personnel regarding teaching nutrition. My job has been to train personnel. Although I understand the overall message of the pyramid I find it extremely difficult to get the people I train to see the overall message. Many of them get bogged down in the specifics.

The pyramid by its nature is designed to teach general concepts about nutrition. To be more specific there needs to be some way of measuring the caloric need of an individual, which is extremely difficult to do. Even if the specifics of portion sizes and number of portions according to individualized needs are not understood, if one follows the general concepts, and eats a variety of food from each group the result should be very close, over the long run, in meeting the nutritional needs of the individual.

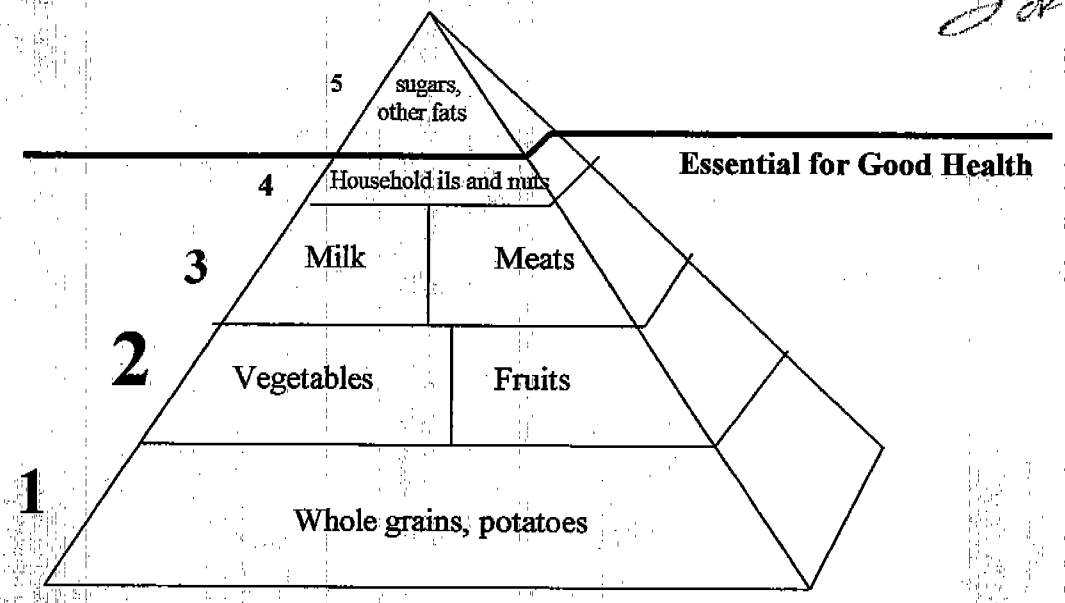
The main problem to following the good advice of the pyramid is that the graphic does not clearly show what is recommended, and there is hopeless confusion about fats, with many teaching that all added fats are bad, when the scientific literature makes clear that polyunsaturated fatty acids found in household oils and nuts are essential to health.

To remedy this situation I think that it is essential to make sure that they underlying conceptual basis of the pyramid is as clear as possible. In other words, if whole grains are preferred over enriched cereals this should be shown clearly in the graphic. If sugars are a demonstrably different kind of carbohydrate source, this should also be clear. Finally, if there is a difference in kinds of fats, this issue has to be addressed. Basically this means an alteration of the names of some groups, leaving out the dots and circles in the five main groups and adding oils/nuts to give essential fatty acids. Since oils sold for home use are chemically different from oils used in the food industry the label of the new group has to reflect that fat. Thus the tiers of the pyramid would be:

1: The foundation: For energy and the nutrients needed to use that energy
2: Protective foods: for vitamins, minerals, phytochemicals and fiber (eat lots)
3: Structural elements: to make strong bones, muscles, heart, lungs, etc in the body. We need enough, but not too much.
4: Oils and nuts: for vitamin E and essential fatty acids (include some)
5: Sugar, other fats: provide energy, but not the nutrients needed to use it. Therefore small quantities suggested.

postmarked 8/27/04

Macpherson Sanchez
2 of 2



The above drawing represents a possible way of integrating these ideas into the pyramid structure. The numbers and their sizes were placed on the pyramid to indicate their order of importance.

I am well aware that food industry interests may dictate that the graphic and its underpinnings not be this clear. However, the current problem of obesity dictates that nutrition education be as clear as possible to prevent a greater problem in the future..

Thank you for your consideration of this suggestion

Sincerely

AEMacpherson

Ann E. Macpherson-Sánchez, EdD
Foods and Nutrition Specialist

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August 26, 2004

The Food Guide Pyramid Reassessment Team
USDA Center for Nutrition Policy and Promotion
3101 Park Center Drive Room #1034
Alexandria, VA 22302

Sullivan
1 of 1

AUG 30 2004

To whom it May Concern:

I have several suggestions concerning the development of the new Food Pyramid. My first suggestion is that in the protein group you encourage the consumption of protein sources such as beans, seeds, nuts and soy products (tofu, tempeh, etc.). These are all cholesterol free, low in saturated fat, and high in fiber. Additionally non-animal sources of protein have been found to reduce the risk of many diseases such as cancer, heart disease, diabetes, etc. People should be encouraged to eat these nutritious foods and to avoid foods high in saturated fat and cholesterol. Products such as beef, chicken and pork are linked to an increased risk of heart attack, cancer, diabetes, and many other diseases. I hope you will encourage people to choose nuts, seeds and beans over hamburgers and sausages.

Secondly, I request that the calcium rich group include products such as soymilk, calcium-fortified orange juice, tofu, leafy greens, broccoli, blackstrap molasses, soy yogurt and almonds. These foods all have a high calcium content and lack the saturated fat and cholesterol found in milk and cheese. With so many Americans either lactose intolerant or allergic to milk it seems necessary to emphasize that there are other sources of calcium than cow's milk.

Lastly I would appreciate it if you would differentiate between whole grains and processed grains. Whole grains contain fiber and other nutrients that processed grains often lack. Additionally whole grain consumption is also linked to a reduced risk of many diseases.

Thank you for your time and consideration.

Blakely Sullivan

Blakely Sullivan

Brighton, MA

postmarked 8/26/04

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The Food Guide Pyramid Reassessment Team
USDA Center for Nutrition Policy and Promotion
3101 Park Center Drive Room #1034
Alexandria, VA 22302

AUG 30 2004

Kimura
1 of 1

Dear Food Guide Pyramid ReassessmentTeam:

Please change your "Milk" group to "Calcium" group and emphasize leafy green vegetables and soy. The vast majority of Asian Americans and African Americans are lactose-intolerant or lactose-allergic, as are a significant proportion of white Southern Europeans.

Moreover, with so much antibiotics, hormones, and pesticides in our milk, it is unnecessarily unhealthy even for those not lactose-intolerant or -sensitive.

The "Protein" group should emphasize beans and nuts rather than meat. Americans eat 2-3 times the RDA of protein and need to eat less protein.

High amounts of animal protein also cause calcium to leach from the body, thereby negating the high amount of calcium in milk.

Thank you for reading my comments.

Aloha,

Amy Y. Kimura

Amy Y. Kimura

Honolulu, HI
Fri., August 27, 2004

postmarked 8/27/04

PENNSTATE

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College of Agricultural Sciences
Cooperative Extension Philadelphia County
Philadelphia, PA

AUG 30 2004

August 26, 2004

Joseph 1 of 1

Food Guide Pyramid Reassessment Team
USDA Center for Nutrition Policy and Promotion
3101 Park Center Drive, room 1034
Alexandria, VA 22302

Dear Team:

The Nutrition Links program teaches low-income families how to make healthy food choices using the food guide pyramid as the primary teaching tool. As supervisor for the Philadelphia County program, I solicited response from our team of nutrition educators. Based on their experience in working with low-income consumers two team members, Allison Sapp and Arlene Wright, offered the following comments on updating the food guidance system, addressing the particular areas of interest.

Configuration of the new graphic: circle of health, pyramid steps to health, food guide tower to healthy eating or food guide building blocks.

Strategies to improve awareness and motivation for using the information: emphasize healthy eating as a way to avoid the expense of fad diets and to save money on costly fast food and processed products. Encourage use of the graphic for meal planning such as having available as meal-planning cards as well as consistent use in various media.

Methods to assist consumers in personalizing the new system: Encourage the creation of healthy eating clubs and emphasize the connection between chronic illnesses and poor eating choices. Provide materials to diet and fitness centers to assist consumers in planning meals to lose weight. An emphasis in fitness should also be included.

Interactive tools to demonstrate messages: video games and other electronic media

Communication delivery channels for the messages: posters, TV, video, DVD, media technology

I appreciate your serious consideration of these comments as the process of revising the nation's food Guidance System continues.

Respectfully submitted,

Leona Joseph, M.A., CHES

Leona Joseph, M.A., CHES
Program Supervisor, Nutrition Links

Penn State is committed to affirmative action, equal opportunity, and the diversity of its workforce.

MAKING LIFE BETTER

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AUG 30 2004

Schleifer 1 of 1

The Food Guide Pyramid Reassessment Team
USDA Center for Nutrition Policy and Promotion
3101 Park Center Drive Room #1034
Alexandria, VA 22302

August 26, 2004

To Whom It May Concern:

I am writing to add my comments to the food guide pyramid.

Please emphasize healthier plant-based sources of protein such as beans, i.e. tofu and nuts in the "meat" group. Can you call it the "protein" group instead of the "meat" group? Or maybe you'd rather them change the "Milk" group to the "Calcium" group and feature leafy green vegetables, the healthiest source of the mineral.

Please also emphasize whole grains and flours. White flour and white rice have no nutrients. The Atkins craze is hurting the outlook of the American diet, but it is really just the white flour and white rice that needs to be reduced, or better yet, cut out of the diet. A high carb. diet is a more healthy diet, as long as it is a diet of whole grains and flours.

While it is clear that we need protein and iron which indeed can be found in meat products, we usually get too much from animal products. The public has been misinformed by the previous food pyramids.

I have attended the National Association of Vegetarians Summerfest this summer, heard many authorities speak and bought many books on the matter.

Please think about who you are getting input from and their ulterior motives. Think about what happened to the tobacco industry. It is amazing to me how the National Cattlemen's Beef Association pushes it's products and cause on The Food Guide Pyramid as well as other animal food industries.

Please do the right thing, and change the names of the food categories. Deemphasize the meat, dairy, and eggs and add importance to plant based food for all the necessary daily nutrition.

Kind regards,

Mia Schleifer

Postmarked 8/27/04

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PATIENTS' NATIONAL CANCER INSTITUTE

- By Recovered Patients
- Not Governmental
- Cost Free, Non-Profit

Volunteer Support for Cancer Freshmen by Cancer Graduates at
www.PatientsNCI.org

AUG 30 2004

Palmer
1 of 3

August 27, 2004

The Food Guide Pyramid Reassessment Team
USDA Center For Nutritional Policy And Promotion
3101 Park Center Drive Room #1034
Alexandria, Va 22302

Dear Team,

The diet illustrated by the enclosed food pyramid is so healthy and so powerful that it has helped to reverse cancer, cardiovascular disease, obesity, arthritis, etc.

We recognize that it may be politically difficult , but scientifically, a vegan diet, free of all animal products, may be ideal for America's health problems at this time.

I have heard that Japan, with an average intake of 300 mg of calcium daily, has far less osteoporosis than American dairy users. They use lots of dark greens. I hope you will feature dark greens as a source of calcium on the new pyramid.

There is growing recognition among the masses that sugar products and flour products should not be featured on a food pyramid - only whole grains.

But everyone agrees that vegetables and fruits are the healthiest foods, so logically they should be the base of the food pyramid.

Please find the strength to stand up to the giant food lobbies. You can do more for America's health than doctors and pharmaceutical companies.

Thank you,

Ron Palmer

Ron Palmer, Lead Volunteer
Patients' National Cancer Institute
www.PatientsNCI.org

postmarked 8/27/04

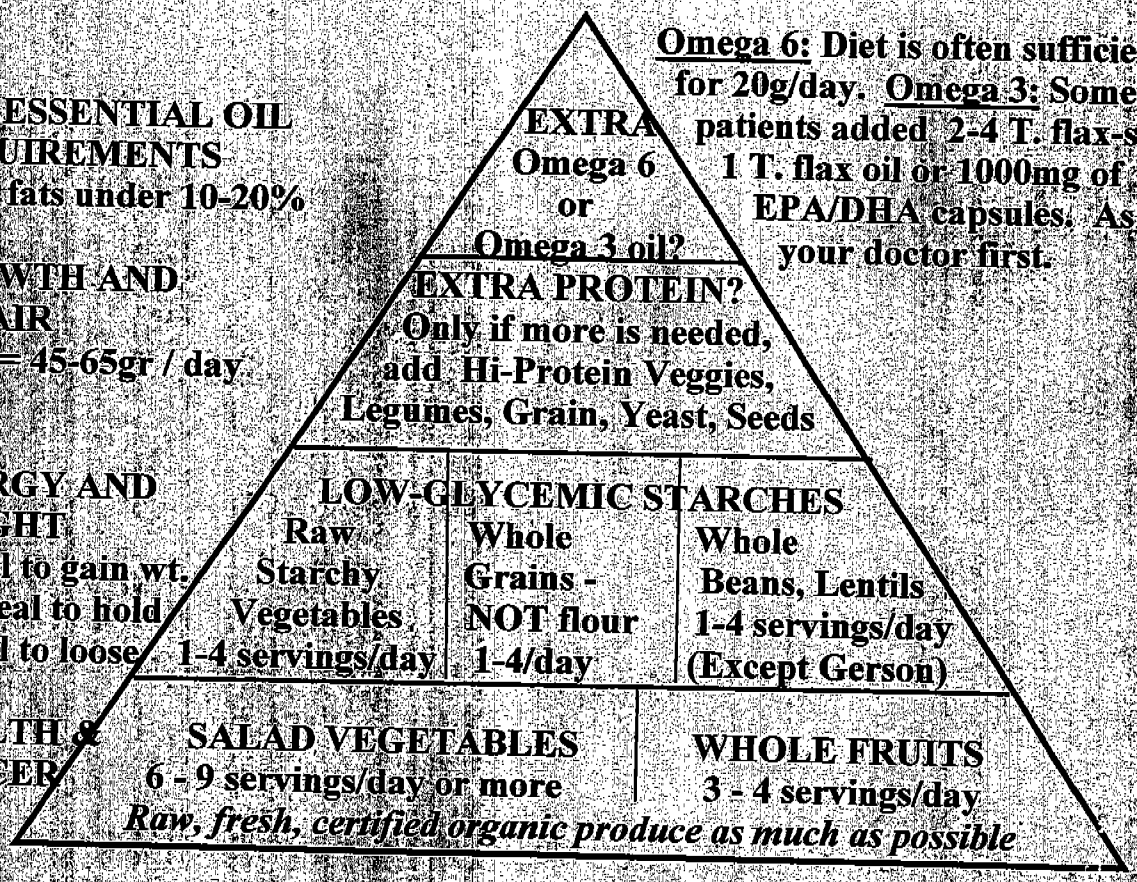
Patients' National Cancer Institute
San Diego, Ca

Valmer 2003

VEGAN FOOD PYRAMID

By PATIENTS' NATIONAL CANCER INSTITUTE www.PatientsNCI.org

For variety, successful cancer patients often combined several live-food diets to reverse their cancers. In this pyramid they combined the Dr. McDougall starch-centered vegan diet with the Gerson, Wigmore and Livingston anti-cancer diets. During therapy patients ate 80-100% food raw for maximum nutrients and enzymes. Fresh juices provided many raw vegetables. After the cancer was reversed, patients continued to eat at least 50-60% raw for optimum health.



Omega 6: Diet is often sufficient for 20g/day. **Omega 3:** Some patients added 2-4 T. flax-seeds, 1 T. flax oil or 1000mg of EPA/DHA capsules. Ask your doctor first.

FOR ESSENTIAL OIL REQUIREMENTS
Total fats under 10-20%

GROWTH AND REPAIR
RDA = 45-65gr / day

ENERGY AND WEIGHT
4/meal to gain wt.
2-3/meal to hold
1/meal to loose

HEALTH & CANCER

FREQUENT VEGETABLE JUICES, freshly made and consumed, replaced most water during therapy. Cancer juice recipes emphasized carrots, dark greens (except hi-oxalic acid spinach) and cabbage family vegetables. Some natural flavors could be added and 1/4 tart apple for pectin. Delicious!

FOR THE COMPLETE ANTI-CANCER PROGRAM VISIT www.PatientsNCI.org

Copyrights, service marks and trademarks reserved by Patients' National Cancer Institute. Copies can be made for personal use of cancer patients without charge.

040402

VEGAN MEAL PLANNER - A 2000 Calorie Example from Patients' National Cancer Institute

Visit www.PATIENTSNCI.org for a complete program to reverse cancer. Email Webmaster@PatientsNCI.org

A mostly raw, natural diet is so calorie-efficient, that 2000 calories may be too much EXTRA protein, oils and starches can be reduced. But retain all fruit and salad-vegetable servings for health. Raw salad vegetabls can provide the longevity benefits of calorie-restriction even when you eat all of them you want, so never go hungry.

	Serving Sizes in grams of the principal nutrient				
Meal	WHOLE FRUITS - 15gr sugars	STARCH-15gr carbs. Typically incl 1-3g protein	SALAD VEGGIES 5gr carb. Typically include 1gr protein	MAXIMUM OIL - 5gr oil. Typically include 2gr protein	Optional EXTRA PROTEIN-5gr per serving **
BB	1	2	1		
BRK		3	1	4	3
BL	1	1	1		
LUN		3	2	3	3
BD	1	2	1		
DIN		3	3	2	3
TOT	3 Servings	14 Servings	9 Servings	9 Servings	9 Servings**
	45 grams	210 grams	45 grams	45 grams	45 gr + 55 RDA
	180 calories	840 calories	180 calories	405 calories	400 cal. tot. prot.
% cal.	9%	42%	9%	20%	20% **

**A balanced 2000 calorie vegan diet averages around the RDA for protein - about 55 grams. EXTRA protein is added in this example for athletes, or for cancer patients suffering from excessive weight loss, or internal damage from chemotherapy or radiation. But cancer doctors often recommend temporarily much lower amounts at first to freeze tumor growth.

START MEAL PLANNING WITH STARCHES: GRAINS, LEGUMES, AND RAW VEGETABLES.

RAW FRUIT snacks, appetizers, desserts	LOW-GLYCEMIC STARCHES	RAW SALAD VEGETABLES	SEEDS/OILS	EXTRA PROTEIN above the RDA
Apple	RAW VEGETABLES	Asparagus	OMEGA 3 OILS	ALL VEGETABLES CONTAIN PROTEIN. THESE ARE ABOUT 5GR PER SERVING:
Apricots - Med. Gly	Corn on cob	Beets & greens	Flaxseed	
Banana-Hi glycemic	Parsnip salad	Broccoli	Walnuts	
Berries	Potato salad	Brussels Sprouts	Pursulane	
Blueberries	Root salad	Cabbage, all	Hemp	Beans
Canteloupe -Hi gly.	Rutabaga salad	Carrots	Brazil nuts	Brusseles sprouts
Cherries	Shitake mushrooms	Cauliflower	Soy	Corn on cob
Citrus	Squash, winter, grated	Celery	Lecithin	Grains
Cranberries	Turnip salad	Chards	EPA/DHA	Kale, cooked
Dates - Hy glycemic	Yam chips	Collards	Dark greens	Lentils
Figs - Hi glycemic	GRAINS	Cucumber		Split peas
Grapes	Buckwheat	Eggplant	OMEGA 6 OILS	Shitake mushrooms
Kiwi	Bread, Essene, hemp, flourless, sourdough	Garlic	Sunflower seeds	
Mango-Med. glycemic	Barley, sprouted	Kale	Pumpkin seeds	OTHER PROTEINS
Nectarine	Bran, wheat, rice, oat	Leeks	Sesame seeds	Bread, flourless
Papaya - Hi glycemic	Kamut, sprouted	Letttuce, dark	Almonds	Buckwheat
Peaches	Oats, steel-cut	Onions	Nuts	Grains
Pears	Pasta	Parsley	Borage oil	Legumes
Persimmon	Rye, sprouted	Peppers	GLA	Nuts
Pineapple	Rice, not short or inst.	Radishes		Pea powder
Plums	Sprouts, mixed	Seaweed, not Kombu	OMEGA 9 OILS	Rice powder
Raisins-Hi glycemic	LEGUMES	Spinach	Avocado	Seeds
Strawberries	Beans and Lentils	Squash, summer	Olives	Soy products
Watermelon-Hi gly.	Split peas	Tomato	Raw peanuts	Wheat germ
		Turnip greens		Yeast powders

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Jennifer Beaird Rubenstein

Louisville, KY

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Rubenstein

1 of 1

August 27, 2004

The Food Guide Pyramid Reassessment Team
USDA Center for Nutrition Policy and Promotion
3101 Park Center Drive Room #1034
Alexandria, VA 22302

To Whom It May Concern:

I'm writing this letter regarding the upcoming changes to be made to the Food Guide Pyramid. I encourage the USDA to emphasize healthier plant-based sources of protein such as beans and nuts in your "meat" group. Plant-based foods can also contain complete proteins, and are a healthier alternative to the saturated-fat laden meat. I also think it would be beneficial to change the "Milk" group to the "Calcium" group and feature leafy green vegetables, which are the healthiest source of this mineral. The American Dietetic Association has published a position paper on vegetarian diets, stating that they are just as healthy if not healthier than the standard American diet. Please consider emphasizing these healthy alternatives. Thank you.

Sincerely,

Jennifer Rubenstein

Jennifer Beaird Rubenstein

postmarked 8/27/04

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Jeanne 1 of 2

AUG 30 2004

Date: August 27, 2004

To: Food Guide Pyramid Reassessment Team USDA Center for Nutrition Policy & Promotion
3101 Park Center Drive, Room 1034 Alexandria, VA 22302

From: Anita Jeanne
Atlanta, GA
Email:

The present food pyramid along with high powered advertising are part of the reason we are the fattest and most unhealthy we have ever been in this country. Immigrants from other countries who adopt our way of eating become overweight and get many diseases not common in their countries. The change is long overdue. People are getting diseases in their youth that they used to get as they aged. The American public should know the truth. We do not need just a few tweaks to the present pyramid. We do not need small changes that allow manufacturers to spin new products and consumers to gradually change their diets. The public needs guidance for changes NOW! The U.S.D.A. needs to get it right this time, our lives are depending on honest information. Individuals can make their own choices- just give us the truth. Enough studies are out there that prove the following proposed guidelines. The TRUTH is needed- some will follow and some will not. We cannot change everyone. Some will eat what they want with no consideration of their health. People that want to improve are confused and need guidance, they need the truth. There are many diet books out there that do not work long term, this is why there are so many- because they do not work. With all of our intelligence and knowledge it is embarrassing to be the most overfed, overweight, malnourished country in the world. We have to stop letting the food industry and diet books, whose interest is dollars, affect the health of our nation. This change in the food pyramid should not be influenced by any special interest food groups. It should be based on how we should eat to get the most nutrition out of our food choices. Our most nutritious foods are whole fruits, vegetables, nuts and seeds that do not come in packages. These contain a large amount of antioxidants, phytonutrients, omega 3 fatty acids, vitamins and minerals. These nutrients and antioxidants are protection for plants and will also protect us from chronic disease. The nutrients we need to get from our food cannot successfully be obtained from a pill. The nutrients we get from food work synergistically with each other. To get enough of these nutrients we need to be eating a lot of fruits and vegetables.

The Following Pyramid Is Proposed: 1. The base should be the maintenance of energy, having an exercise program and controlling calories and weight. 2. The next level should be a variety of organic healthy whole carbohydrates such as fruit and vegetables having color: green, yellow, orange, red, blue, purple, with a large portion of this uncooked to preserve the nutrients. 3. The next level should be whole grains and starchy vegetables. 4. The next level should be legumes, beans, peas, sprouted nuts and seeds. 5. The next level should be limited amounts of fats from fruits, vegetable, nut and seed sources. With no more than 20-30% of our calories coming from these healthy fats. 6. A strong notation should be made on the pyramid of foods that should be eaten rarely and eventually eliminated completely from the diet. These should be: salt (no more than 1000 mg /day or less), sugar, high fructose corn syrup, and other processed sugars, refined grains, trans-fatty acids, and saturated fat (all animal products have saturated fat). All of these foods need to be eliminated completely from the diet, not cut in half as proposed by the USDA.

postmarked 8/27/04

7. What professional in the health and nutrition field is telling us that we are deficient in saturated fat, sugar, refined grains, or trans-fats and need to get them into our diet? These foods cause inflammation and can lead to many of the chronic diseases that plague our society. If these unhealthy foods are eaten then there would not be enough calories left for the fruits and vegetables containing a large amount of antioxidants, phytonutrients, vitamins and minerals which can keep the body healthy. 8. If enough of the levels two through five are eaten to maintain energy and a healthy weight there will be more than adequate protein, folate, calcium, omega 3 fatty acids, and other nutrients in the diet. (refer to the World Health Organization's recommendations for protein needs). Animal protein and fat are not necessary for a healthy diet. 9. A plant based vegan diet with a healthy variety of uncooked fruit, vegetable, nuts, and seeds is the healthiest way to eat.

Sincerely,

Anita L. Jeanne

Anita L. Jeanne

August 27, 2004

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Norell
1 of 1

AUG 30 2004

The Food Guide Pyramid Reassessment Team
USDA Center for Nutrition Policy and Promotion
3101 Park Center Drive Room #1034
Alexandria, VA 22302

Dear Team Members:

I am very supportive of your important efforts to update the Food Pyramid to reflect current research and nutritional consensus. I think you are aware that many thousands, even millions, of people have been eating a vegetarian or vegan diet in the last several decades. Many of us have enjoyed as good health - or better - than our meat-eating friends and family members.

I believe the new nutritional guidelines should cover energy sources like carbohydrates, fat sources (especially the "good" fats from flax, etc.), protein sources, and sources of essential vitamins and minerals that may be rarer in other food groups. I believe that this categorization would satisfy both those who choose to continue consuming animal products, and those who avoid doing so (whether for ethical, religious, or allergy reasons).

Please ensure that you are not unduly influenced by special interests. Although the economy is important, your task is to outline the most sensible diet for the majority of U.S. citizens. It would be unconscionable to allow the lobbying of the animal-based agriculture industries to weigh more heavily in the process of creating the guidelines than scientific observations.

Thank you for your efforts in this matter, and your serious consideration of my opinion.

Sincerely,

Aire Celeste Norell

Los Angeles, CA

postmarked 8/27/04

postmarked [illegible]

asf

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Waters

1 of 1

Dear USDA Reassessment Team

You have a very important job in influencing the public health of this great nation!

Please consider emphasizing proteins from beans and nuts in your "meat" group.

Also, please consider the calcium from leafy green vegetables in your "milk" group.

The increase of servings of fruits & vegetables per day to 5-9 is also crucial to reducing obesity and diabetes in our nation's populace.

Sincere thanks,

(MPH candidate, JHU) Marilyn Waters

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Kundart/1 of 1

AUG 30 2004

James Kundart, O.D., M.Ed., F.A.A.O.

Easton, Pennsylvania
Phone , Fax
E-mail:

The Food Guide Pyramid Reassessment Team
USDA Center for Nutrition Policy and Promotion
3101 Park Center Drive Room #1034
Alexandria, VA 22302

August 26, 2004

Dear Food Guide Pyramid Reassessment Team:

It has come to my attention that changes are being considered to the current Food Guide Pyramid. I would like to express my support for the Pyramid the way it is.

Coming from a generation that grew up with the four food groups, I felt the Food Pyramid clarified nutritional goals for me. With the old four food groups, it was always implied that one should consume in equal quantities, ideally at each meal. The Food Pyramid, on the other hand, recommends consumption in the proper proportions.

As an eye doctor, I have seen the effects of excessive cholesterol, fat and sugar on the tissues of the eye and the vision of my patients. I often refer them to the Food Pyramid to help guide their eating habits and protect their vision.

I understand that your team may be under considerable pressures from various industries to increase the share of "real estate" their products have in the official USDA recommendations. If this is the case, I would urge you to resist such pressures and follow the recommendations of science and health care professionals, like myself.

Sincerely yours,

James Kundart OD

James Kundart, O.D., M.Ed., F.A.A.O.
Doctor of Optometry

postmarked 8/27/04

M.Sharon Gambocorto

Baldwinsville, NY

371

August 26th, 2004

Gambocorto
1 of 1

AUG 30 2004

To USDA Food Pyramid Committee:

Since you are updating the food pyramid, I would like to share my thoughts with you. I would suggest that you put high on the pyramid a diet rich in plant-based proteins such as beans, nuts and whole grains. These foods also provide fiber and good fats. Also, foods rich in calcium, such as leafy green vegetables, are also high in vitamins and minerals. You might consider a CALCIUM group rather than limiting it to a milk group.

Thank you for considering my suggestions.

M. Sharon Gambocorto
Sharon Gambocorto

postmarked 8/27/04

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AUG 30 2004

asf

Mari 1 of 1

The Food Guide Pyramid Reassessment Team
USDA Center for Nutrition Policy and Promotion
3101 Park Center Drive Room #1034
Alexandria, VA 22302

Please be advised.

We Know.. and we hope you do!

We are Vegucating the public.. Maybe you could do the same? Its time for a smarter America. This ignorance about health and care for the human body is coming to an end

WE KNOW that we are aware that Organic, Whole, Ripe, Raw, Fruits, Vegetables. Sprouted Nuts, Seeds are the best food sources for pure vibrant health and healing of all dis-eases. Please make it apparent in the new food pyramid.

Please let the food choices reflect the optimal VEGETARIAN choices that are better for human health and the planet. Health of the Planet and People are linked.... And Vegetarian (whole, fresh, ripe, raw, organic) food choices are the absolute best for ALL!

Undo the ignorance of Americans and allow true choice to happen.

Calcium Group=Green Leafy Vegetables, Sesame Seeds
Protein=Nuts, Beans, Seeds, Whole Fruits & Vegetables
Fats=Avocados, Seeds, Nuts, Olives, Fresh pressed oils
Sweets=Fruit

Be real.. Tell the truth.. Unprocessed whole foods, Oils that have not been heat treated.. We know.. the truth.. We do! Help spread truth.. so the planet and everyone can truly benefit. Let's get real. Stop supporting the death industry (dead animals)..and start supporting life!

Come on.. we know the truth. We are living proof! Vegan (no animal products) and predominately Raw, Organic, Fruit, Vegetables, Nuts & Seeds are the best foods for adult and children. Infants should be fed their mothers milk.. not milk of a cow or other animal. Come on!! We know the truth!! Do you??

Please be a bit more creative.. and impress the world with leading health information.

Thank You,
Denise Mari

postmarked 8/27/04

NYC

Denise Mari

The Food Guide Pyramid Reassessment Team
USDA Center for Nutrition Policy and Promotion
3101 Park Center Drive Room #1034
Alexandria, VA 22302

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Narantia 1 of 1

Please be advised.

We Know.. and we hope you do!

We are Vegucating the public.. Maybe you could do the same? Its time for a smarter America. This ignorance about health and care for the human body is coming to an end

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Sweets=Fruit

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Please be a bit more creative.. and impress the world with leading health information.

Thank You,

Kara Narantia

postmarked 8/27/04

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08/26/04

Greenslate 1 of 1

DEAR FOOD PYRAMID REASSESSMENT TEAM,

I'M WRITING TO MAKE A COUPLE OF SUGGESTIONS FOR THE FOOD PYRAMID. I'm Hoping that with the current OBESITY EPIDEMIC IN OUR COUNTRY, you will CONSIDER ADDING FOODS SUCH AS BEANS AND NUTS to your "MEAT" group. OTHER protein-rich Foods SUCH as SOY-MEATS AND TOFU would be beneficial additions AS WELL. I WOULD ALSO LIKE TO SEE THE CURRENT "MILK" group changed to a MORE ACCURATELY NAMED "CALCIUM" group. Within this group you COULD feature leafy green vegetables (possibly the healthiest source of THE Mineral) as well as other foods like SoyMILK, etc. OVERALL I WOULD LIKE TO SEE A MUCH STRONGER Emphasis ON HEALTY PLANT-BASED SOURCES OF PROTIEN AND CALCIUM. THANK YOU FOR YOUR TIME, AND I hope you CONSIDER MY VOICE IN YOUR REASSESSMENT OF THE CURRENT FOOD PYRAMID.

SINCERELY,

CHRISTOPHER GREENSLATE

Chris Greenslate

ENCINITAS, CA

postmarked 1 of 1

BELLPORT, NEW YORK

August 26, 2004

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AUG 30 2004

The Food Guide Pyramid Reassessment Team
USDA Center for Nutrition Policy and Promotion
3101 Park Center Drive Room #1034
Alexandria, VA 22302

Greene | 1 of 1

To the members of the Reassessment Team:

Twelve years ago, the Food Guide Pyramid represented a bold step in the right direction of healthier eating. I'm glad you are working now to update it, and I would like to contribute the following comments.

I'm a Long Island housewife. I do most of the cooking and food shopping for our family. When it comes to nutrition, I've done my homework—and I know that even with the help of the Food Guide Pyramid these past years, our society still faces serious problems in terms of diet. We should be eating more *whole* foods, more vegetables and fruits and legumes. Instead, as a nation we still tend to eat too much saturated fat, too little fiber, too many empty calories.

"*Choose most of what you eat from plant sources,*" say the country's top mainstream medical & health organizations: the National Institutes of Health, the American Heart Association, the American Cancer Society, the American Academy of Pediatrics, and the American Dietetic Association (in their consensus statement of 1999). That's *not*, however, the advice our nation's meat & dairy producers want consumers to hear.

I understand that part of the USDA's mission is to support these producers. But our population is suffering a health crisis of epidemic proportions. I urge you to do what's right in terms of public health, not politics.

Your team needs to make sure the updated guide sends this message: *the way to eat better is to move towards a more **whole-food, plant-based diet.*** This is true for all of us—not just the vegetarians and vegans. Eating more plant-based meals makes good sense for everyone.

Since a prime example of how to "eat less saturated fat" is to eat less meat & dairy, you may need to rethink the prominence of meat & dairy in the group names and serving recommendations. *High-fat meat and animal products ought to be eaten **sparingly***, say the NIH, AHA, ACS, AAP, & ADA. Shouldn't the next food guide reflect this advice?

And consider creating a "Calcium" group, instead of a "Milk, Yogurt & Cheese" group. Be clear that calcium *balance* is important, not just intake. In our home, we get calcium from fortified soy milk, rice milk, and orange juice; kale and collard greens; and tofu. The need to avoid saturated fat, cholesterol, or lactose means that dairy products are often *not* the best choice. Shouldn't the next food guide help debunk the notion that dairy is the only, or best, source of calcium?

I hope these comments are helpful to your team.

Postmarked 8/27/04

Sincerely,

Jennifer Greene

Jennifer Greene

Club Veg: Vegetarian Education Group

Bellport, NY

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Hamlin 1 of 2

8/26/04

The Food Guide Pyramid Reassessment Team
USDA Center for Nutrition Policy and Promotion
3101 Park Center Drive Room #1034
Alexandria, VA 22302

To whom it may concern,

I am writing to offer the following comments on the USDA Food Guide Pyramid.

1. Emphasize healthier plant-based sources of protein such as beans and nuts in the "meat, poultry, fish, dried beans and eggs" group.

2. Change the name of the "meat, poultry, fish, dried beans and eggs" group to the "concentrated protein" group – since protein is in everything, we want to distinguish that these are concentrated proteins. Since animal products are associated with disease the food group name should not include the names of categories of animal products.

3. Change the name of the "Milk" group to the "Calcium" group and feature leafy green vegetables, the healthiest source of the mineral, and other healthy sources from other food groups. This is important since the majority of the worlds population is lactose intolerant. To imply that all people should include dairy in their diets is wrong given the amount of lactose intolerance, a natural condition, and considering the amount of dairy allergies.

4. Somehow indicate that trans fats are bad and indicate what foods have them ie: 90% from processed foods including anything that includes hydrogenated oils, partially hydrogenated oils, or shortening, and includes most deep fried foods, especially those from restaurants, and 10% from animal products.

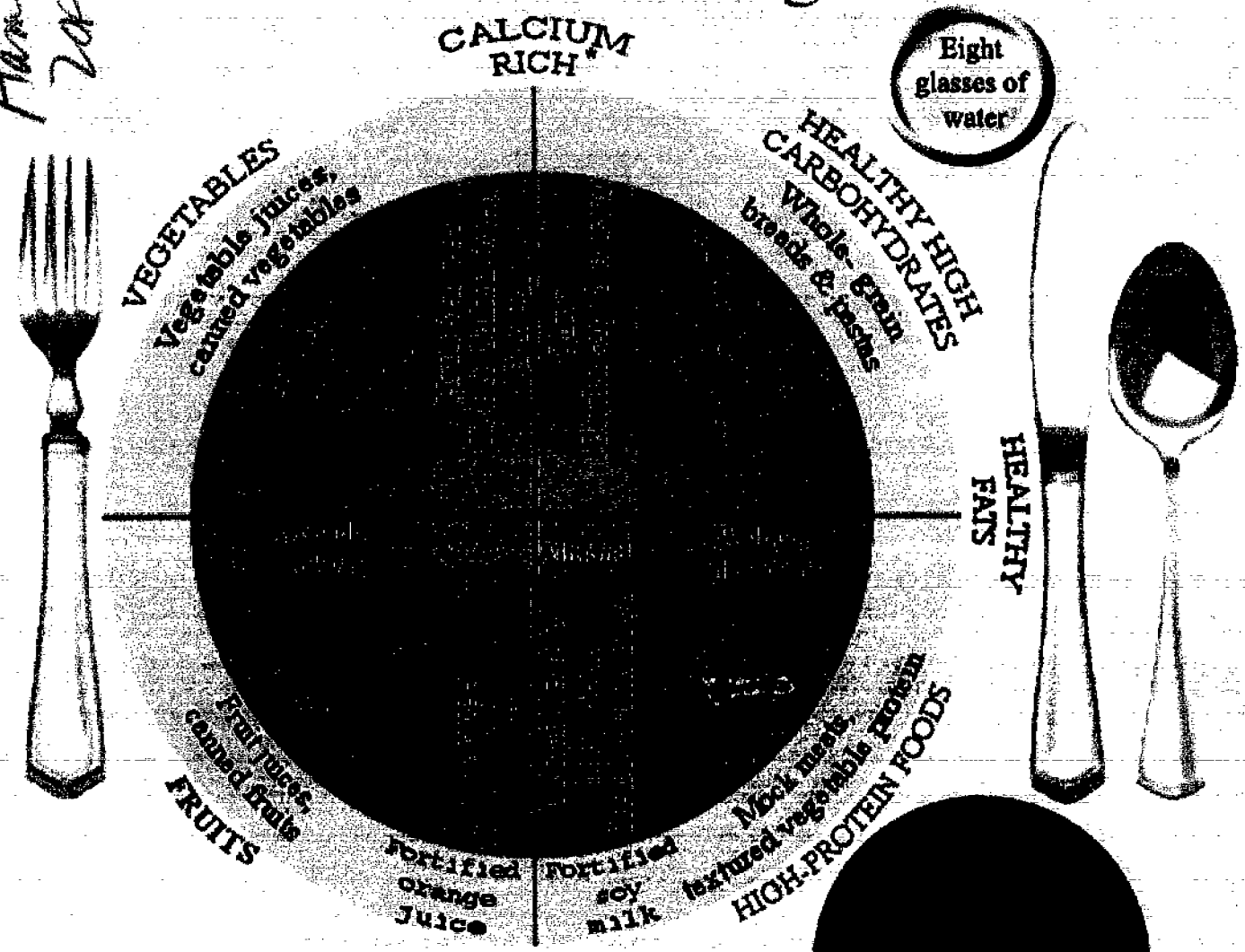
5. Include a section on essential fatty acids and include the best sources that do not have downsides (such as fish which might also have contamination and is not sustainable.)

In general, it would be nice to see a food guide that is not based on industry pressure, but rather what we actually know through science is the healthiest way to eat for disease prevention. Here is a food guide that was created by my organization. Please feel free to utilize this concept.
Thank-you

Amie Hamlin
Director, Club Veg: Vegetarian Education Group

postmarked 9/27/04

Common Sense Eating Guide



CAUTION

These foods can fit into a healthy diet, but quantities should be limited.

***These are only a few examples of calcium-rich plant foods.**

****Fish are a source of omega-3's, but they are not recommended due to mercury, other contaminents, & a lack of sustainability. Instead use flax seeds, the richest source, and walnuts.**

© Allison Memmo Geiger + Amie Hamlin 631-286-1343

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The Food Guide Pyramid Reassessment Team
USDA Center for Nutrition Policy and Promotion
3101 Park Center Drive Room #1034
Alexandria, VA 22302

August 26th 2004

It is a tragedy that so many people continue to ignore the fact that the leading cause of heart disease, cancer and obesity is the consumption of animal products. Sadly, with their false advertising and lies, the mighty beef, poultry and dairy industries continue to blind people to the enormous dangers to our health created by a meat and dairy based diet.

As publishers of The Food Guide Pyramid you are in the unique position of being able to change public perceptions of what is healthy and what is not. Please do not waste this precious opportunity by bowing to pressure from the likes of The National Cattlemen's Beef Association, the Poultry Times, the American Meat Institute and the Atkins Corporation. These organizations are not remotely interested in public health, but rather in their own profits. The need to promote a plant-based, meat and animal product FREE diet for the health of our nation has never been more urgent. Please ensure that your Food Pyramid reflects the need to move away from meat and other animal products towards a diet consisting of fruit, vegetables, nuts, wholegrains and plant-based protein.

Mike and Joanna Warner
Richmond, California

Mike Warner
Joanna Warner

postmarked 8/26/04

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From Fast Foods to Fad Diets… to Eating for Health

by Edward Bauman, M.Ed., Ph.D.
www. baumancollege.org

AUG 30 2004

Bauman

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"Americans now spend more money on fast food than on higher education, personal computers, computer software or new cars."

The health of most Americans is worsening as you read this. Why so? We all have too much stress, not enough time to exercise, eat right, and relax. Okay, I have stated the obvious. Our childhood desire for foods that are soft, sweet and creamy or salty, crunchy and greasy has for many, become the preferred standards of cuisine. I call this epidemic "fork and mouth" disease, sold to us in our youth by television and marketing and programmed in our brain as a reliable pleasure provider. The result is an unprecedented rise in obesity, blood sugar imbalances, illness and irrationality.

The processed and synthetic foods many Americans eat daily have led to the decline of their health, vitality and body composition. Fast foods, as documented thoroughly in the books, *Fast Food Nation,* by Eric Schlosser, and *Crazy Makers* by Carol Simontacchi, are made from the least expensive materials, loaded with chemicals, damaged fats, artificial ingredients and flavor enhancers that children and adults find delicious and nearly impossible to resist. Fast foods are stimulating without being nourishing...but they *are* profitable. Junk food marketers target children as young as three years old, and in 2002 spent an estimated $15 billion in marketing solely on children.

Current research articles have indicated that fructose intake is strongly correlated not only with obesity but cardiovascular disease due to its elevating effect on blood fats, particularly triglycerides. High fructose corn syrup replaced refined sugar in 1970 as the sweetener of choice for its low cost and claims of being a healthy, non-insulin stimulating sugar. Fructose in an apple is a far different substance than the white powder poured into soft drinks, pastry products, and thousands of packaged foods and beverages. The apple is rich in vitamins, minerals and fiber, whereas fructose powder is totally devoid of the nutrients needed for proper blood sugar regulation. According to Jeffrey Bland, Ph.D., fructose is processed in the liver as a chemical that increases oxidation, inflammation and allergic response, which makes it stimulating and debilitating at the same time.

A combination of artificial or refined sugars with poor quality or cooked fats, is a recipe for weight gain and brain chemistry alterations such as depression, insomnia and panic attacks. People suffering from fatigue, weight gain, and mood disorders are likely candidates for fad diets, medication, extreme exercise and other unhealthy behaviors. Recreational drug and alcohol abuse is often used as a coping device for looking and feeling poorly.

The Atkins diet has preyed on this type of unhealthy person, the overweight, moody and exhausted by providing them with an alternative-eating plan that, for many, only works for a short time. This plan is based on eating largely protein and fatty foods with little or no carbohydrates for the first two weeks. The carbohydrate exclusion forces the body to burn fat by a process called ketosis, which allays hunger and expedites weight and fat loss. After this "induction" period, dieters are allowed only minimal carbohydrates. So, what is the problem? The good news is high protein diets all but eliminate refined and artificial sugars.

postmarked 8/27/04

The bad news is high-protein diets can be extremely lacking in natural, unprocessed plant foods that serve a variety of necessary functions in the body. To compensate, numerous dietary supplements are provided to make up for the deficits in the diet. This is woefully inadequate, as these supplements may be synthetic and poorly absorbed, with only a limited and temporary benefit.

Little attention is directed to the quality of protein and high-fat foods on the Atkins diet. One can easily be a Taco Bell, McDonald's and Baskin Robbins Atkins eater. Mass-marketed animal foods tend to be loaded with bovine growth hormones, antibiotics and pesticides that concentrate in the animal's fat tissue writes John Robbins in his book, *The Food Revolution.* These substances are not safe for daily consumption, which is the case with a typical non-organic, Atkins dieter. Yes, they may lose weight and receive a big boost of energy, but they are also stressing their liver, kidney and immune system with antigens and carcinogens that, with repeated ingestion, may expedite cancer, or autoimmune disease. This is too great a life long risk for the short-term benefits conferred.

> *"Going from fast food to Atkins to Eating for Health is a journey of the soul... from the depths of unknowing to the heights of maturity, choice and regeneration."*
>
> Edward Bauman, Ph.D.

The Atkins diet and other, similar programs are not long term solutions to chronically overeating refined flour products such as breads, pasta and pastries. Eventually, weight loss will plateau and the high-protein dieter becomes sluggish, moody and as tired as before… only to 'fall off the wagon' and return to refined carbohydrates. The joy of eating donuts, a bag of cookies or a heaping bowl of spaghetti is so great that many people cannot contain themselves and revert back to their over-consuming ways, with a gusto that says, "Who cares how I look, I love refined carbohydrates!" This attitude is an addiction to sugar and processed foods that is cyclical and difficult to overcome. Professional nutritional counseling is often needed to help carbohydrate addicts restore and balance their metabolism.

The major flaw of the Atkins diet is that many people, in their zeal to shed pounds, erroneously eliminate too many carbohydrates, thereby becoming deficient in much needed fluid, fiber, antioxidants, and trace elements found in complex carbohydrates.

Another detriment of the high protein, low carbohydrate diet is its potential adverse effect on the acid/alkaline balance. Protein foods, such as meats, fish, eggs, poultry and dairy products are high in nitrogen and therefore, acid forming. Over-consuming acid forming foods creates acidosis (hyperacidity). The blood, lymph, mouth and small intestine need to maintain an alkaline predominance to carry out metabolic functions. Fruits, vegetables, herbs and non-glutinous grains, such as millet, quinoa and brown rice are alkaline forming.

Susan Lark, MD author of *The Chemistry of Success: Secrets of Peak Performance* states that acid forming diets contribute to a negative mineral balance that leads to degenerative conditions such as osteoporosis, arthritis, fibromyalgia, gout, liver and kidney disease. Continued high protein intake, will eventually strain the digestive system, create putrification in the gut and over stimulate the immune system which will perceive excessive protein as antigenic (toxic, bacterial etc.) material.

Relying on these unbalanced diet approaches to achieve weight loss typically leads to another diet failure and another diet book gathering dust on the shelf. People are designed to live and eat in balance.

Natural foods are the basis for the Eating for Heath approach. I created the Eating for Health model (See Figure 1) to provide a bull's eye method for choosing a wide variety of whole, natural foods to satisfy numerous vital health needs. The overwhelming benefit is that a person can choose between many different healthy foods. Rather than reducing the amount and variety of foods consumed, Eating for Health encourages people to eat a plant-based diet, with no more than 50 percent of protein from animal sources, for ecological benefits to the soil and one's digestive system. Careful attention to food quality, quantity and variety, as well as seasonal factors are the foundation of this approach.

Within an Eating for Health food plan, a person can build nutrient-dense meals with one or two servings of a complete protein and quality fatty acid, complemented with an equal or greater amount of fresh fruits and vegetables, and accented with food condiments called booster foods, such as nutritional yeast, sea vegetables, algaes and culinary herbs and spices. Attention to colorful foods, such as red, orange, green, and yellow fruits and vegetables are encouraged to provide ample antioxidants and alkaline minerals, such as calcium, magnesium, potassium, chromium, selenium, and zinc. This gives a person variety and abundance without being as filling as either a predominantly meat or refined grain diet.

Going from fast food to Atkins to Eating for Health is a journey of the soul… from the depths of unknowing to the heights of maturity, choice and regeneration. Yes, it does take time, and in most cases, a teacher, class and family support are most helpful. It is a tragedy that people have to become sick before they wake up and take responsibility for what they put into their precious bodies.

Hopefully, we are at the end of an era in which mass marketing, media and government subsidy supports a climate of consumption that makes us, vulnerable and without will or even hope…simply to put money in the pockets of the giants of agriculture, food production and medicine. Eating fast food or being on an unbalanced diet will not provide the nutritional support for our population to think clearly and change the way we are living politically, economically and ecologically. Eating for Health holds great promise to reverse illnesses that plague so many of our citizens. In time, as it becomes more widespread, and people awaken to what nature can provide, a new era of health, prosperity and spirituality will emerge, albeit out of the wreckage of fast food packaging and the diet books decomposing in our landfills.

To eat whole, natural foods is a sign of recovery from an era of misinformation and gullibility. Spread the knowledge of what the body needs to grow and repair itself and do not be fooled by false claims of better living through chemistry. Nature is what sustains the planet and all its beings. Growing, buying and consuming fresh, natural food will bring optimal health to the body and healing to the earth.

Figure 1

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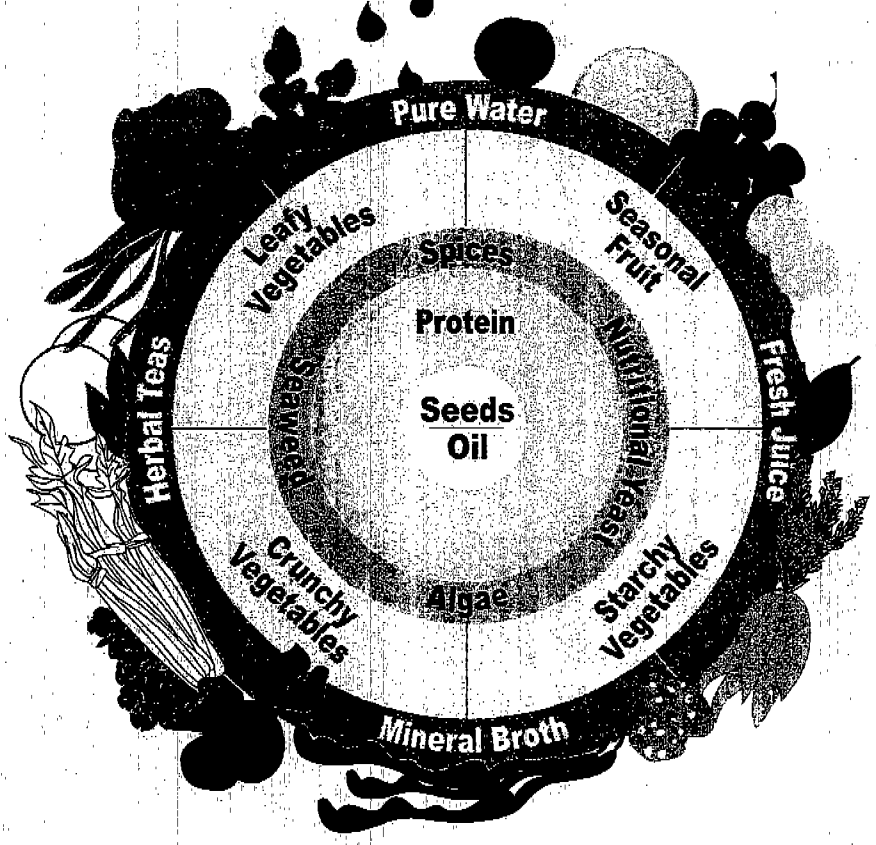
Eating 4 Health



A Rejuvenating Food System
© by Edward Bauman, Ph.D.

Organic, Seasonal, Nutrient-rich, and Individualized

	Seeds/Oils	Protein	Leafy Vegetables	Crunchy Vegetables	Starchy Vegetables	Seasonal Fruit	Booster Foods
Daily servings	2-3	2-4	1-3	1-3	2-4	2-4	2-4
Servings size	1 Tbs. oil 2 Tbs. seeds	3 oz. animal 6 oz. legume	1 cup	1/2 cup	1/2 c. root vegetable grains, bread	1/2 cup or 1 medium piece	1 teaspoon to 1 tablespoon
Examples	Flax, sunflower, sesame, almonds	Poultry, fish, eggs, milk, beans	Salad mix, kale, spinach	Broccoli, string beans, cukes, onion, celery	Yams, winter squash, corn, millet, rice	Berries, apple, grape, citrus	Nut, yeast, algae, seaweed, spices

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Dear experts,

I would like to bring to your attention several problems with existing food guide pyramid. I hope that You will take into account how much people in US value Your opinion. At the same time it does not reflect all the diversity of life styles, cultures, diets in our countries. Many controversies are related to diary products, which are proven to be less than perfect source of calcium and other nutrients. Current state of the milk producing industry and lack of control over the quality of its product put many people in danger.

Thank You,

Sergei Pevchin

August 27, 2004.

postmarked 8/27/04

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8/26/04

Sullivan

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Dear Team;

I have been a vegetarian for many years and am a very healthy person. I work as a staff member at a hospital offering a well known diet and exercise program to benefit cardiac patients. We have documented many healthful changes in lipid levels, weight, reduction of meds, improvement in blood sugars, increased energy and some actual reversal of artery blockage.
The nutritional part of the program is a vegetarian diet, with no animal proteins or saturated fat allowed.
When you plan the new food pyramid, please consider omitting milk, and instead suggesting calcium esp. in the form of leafy green vegetables.
Also, suggesting plant based sources of protein is a much healthier alternative to beef.
I hope the meat and milk lobbying industry does not influence your decision, and an objective desire to help people be healthier prevails.

Sincerely,

Judith Sullivan, CYT

Judith Sullivan, CYT

Johnstown, PA

postmarked 8/27/04

AUG 27 2004

Family Studies and Human Development
School of Family and Consumer Sciences
College of Agriculture and Life Sciences

THE UNIVERSITY OF
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Tucson, AZ

www.ag.arizona.edu/fcs/fshd

August 24, 2004

Eric J. Hentges, Director
Food Guide Pyramid Reassessment Team
USDA Center for Nutrition Policy and Promotion
3101 Park Center Drive, Room 1034
Alexandria, VA 22302

McDonald 1 of 1

Dear Mr. Hentges,

The current Food Guide Pyramid provides no information about portion size. As you are well aware, with our "super sized" society, Americans are often not aware of what constitutes one serving of the food categories. Therefore, I recommend that the Food Guide Pyramid include information that will assist consumers in understanding serving size (such as graphically showing that one serving of meat is equivalent to the size of a normal deck of cards).

The other complicating matter about the food pyramid is that it shows only one side of the equation: calorie intake. Calorie expenditure should be illustrated in some manner to help consumers understand what they would need to do in order to expend extra calories. For instance, walking is a common experience for most American. A graphic of a person walking up the pyramid can illustrate the distance one needs to walk in order to burn off excess calories.

That being said, it may be that the Food Guide Pyramid is just not effective in communicating to the public the information they need about proper nutrition and proper portion sizes. Perhaps it is time to provide more direct and explicit messages about consumption. The fast food industry has done a masterful job of marketing a "super size it" mentality. That needs to be combated with an equally effective campaign to "normal-size it."

Lastly, I believe we do not know enough about Americans' eating habits. Most studies examine eating behaviors as an individual experience. Eating is a social experience most commonly occurring within a family environment. Furthermore, eating is also situational, which means that what we eat and when we eat depends very much on other events occurring at or around the same time. Therefore, I recommend the support of research, similar to that conducted by Dr. Reed Larson, in which he uses the experience sampling method to examine the interactions of family members and their emotional states. In the case of food consumption, we ask respondents, throughout the day, to report on what they ate, who they were with, where they were, and perhaps, how they felt.

Sincerely,

Daniel A. McDonald, Ph.D.
Research Specialist

OPPORTUNITY · INNOVATION · EXCELLENCE · LEADERSHIP · TEACHING · RESEARCH · OUTREACH

FAMILY STUDIES AND HUMAN DEVELOPMENT

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Office of the Secretary

Assistant Secretary for Health
Office of Public Health and Science
Washington D.C.

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Eric J. Hentges, Ph.D.
Executive Director
Center for Nutrition Policy and Promotion
U.S. Department of Agriculture
3101 Park Center Drive, Room 1034
Alexandria, Virginia 22302

Dear Dr. Hentges:

The U.S. Department of Health and Human Services (HHS) appreciates the opportunity to comment on the U.S. Department of Agriculture's (USDA) *Federal Register* Notice on the proposed plan for revising the food guide's graphic presentation and consumer education materials. Our detailed comments are enclosed.

Along with USDA, HHS is committed to helping consumers make healthful eating and physical activity choices. The reassessment of the Food Guide Pyramid provides an excellent opportunity for collaboration across agencies in meeting this goal. Several key steps may improve the utility of this consumer tool to help Americans make healthy food choices:

- **Clear and consistent basis for the Food Guidance System.** Recommendations should promote good health and lower risk of chronic disease. Nutrient adequacy, controlling calories and reducing risk of chronic disease should take precedence over basing diets on current food choices.
- **Collaboration between HHS and USDA.** It is important that the two agencies work together to develop both the Food Guidance System and the consumer education materials developed from this system. This will ensure that the information is consistent and reflects the most current nutrition and health science.
- **Harmonization between the Food Guide Pyramid and the Nutrition Facts label.** Both of these important educational tools are helpful for consumers to use when making food choices in the context of a healthful diet. The use of household measures in the communication of the Food Guidance System should help to increase consumer understanding and ability to choose a healthful diet using the Nutrition Facts label.
- **Retaining the current Pyramid graphic.** Because the current Pyramid is widely recognized as representing Federal food guidance, it may be appropriate to retain its current shape. Any changes should be based on research that examines which messages the current graphic or pyramid shape successfully communicates.

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Thank you for the opportunity to provide comments. We look forward to collaborating with you on the reassessment of the Food Guidance System and the development and communication of the *Dietary Guidelines*. My staff and I would be happy to discuss further any questions you may have on these comments.

Sincerely yours,

Cristina V. Beato M.D.

Cristina V. Beato, M.D.
Acting Assistant Secretary for Health

Enclosure

HHS Comments in Response to USDA's *Federal Register* Notice of Proposal for Food Guide Graphic Presentation and Consumer Education Materials

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General Comments:

The Department of Health and Human Services (HHS) appreciates the opportunity to provide comments on the Food Guidance System graphic presentation and consumer education materials. We commend the U.S. Department of Agriculture (USDA) for requesting comments in the *Federal Register* which affords an inclusive, open process for all individuals and organizations.

Historically, HHS and USDA have collaborated on the development of the US *Dietary Guidelines for Americans*. It would also be valuable to collaborate on the Food Guidance System. However, to date, HHS has not been directly involved in the development of the Food Guidance System (USDA Food Guide Pyramid) or the consumer education materials that USDA developed from the Food Guidance System. HHS would like to convey the merits of early joint collaboration between USDA and HHS working together to develop both the US Food Guidance System and the consumer education materials developed from the guidance system.

Inclusion of HHS in the development process would allow for contribution of the expertise of HHS scientists, especially in the fields of nutrition, human physiology, medicine, dietetics, food safety, communication, consumer education and behavior. Collaboration provides an additional level of scrutiny and a level of checks and balances that is essential for national nutrition guidance. While HHS has had a consultative role, a collaborative one would be more useful. HHS affords a myriad of expertise to enhance the process; it is important to note that many HHS staff will communicate the new graphic to their clients (e.g., Indian Health Service). Collaboration would aid the users of the graphic to provide input that could result in ease of its use in our programs.

The Food Guidance System should be consistent with all of the *2005 Dietary Guidelines for Americans*, including those addressing physical activity and food components that should be limited. Consumption of nonfat/ low-fat/ no added sugars/ low salt/ naturally fiber-rich choices should be emphasized throughout this system.

Specific Comments

If the graphic becomes more of a logo or icon, there should be strict guidelines and an approval process for any non-federal use of the logo. It is questionable whether any commercial use should be allowed, if the graphic may appear without any accompanying food guidance text.

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A) Advantages and disadvantages of retaining current shape (pyramid) for graphic and other potential shapes to use as representative of the overall Food Guidance System.

There are some data to support use of the pyramid shape. Various shapes were tested in the early 1990s to determine which shape (pyramid, bowl, etc.) best conveyed the concepts of balance, proportionality and moderation. To our knowledge, no additional experimental work has been done to test various options since then. If the shape of the icon were changed, it should only be changed after appropriate data were amassed to justify the change.

Any shape that is used to represent the Food Guidance System should convey the concept that each food group contains a range of more healthful and less healthful food choices. For example, foods in the vegetable or grains groups that are battered and fried or that have sugar added would be less healthful choices than fresh or frozen vegetables or ready-to-eat cereal.

Advantages of retaining current shape

Awareness
An advantage is that the shape (pyramid) is now a recognizable shape in the U.S. The introduction of other shapes at this point could introduce confusion in an area where confusion is already rampant. Because the Pyramid is well recognized, it may be of value to retain it in the educational materials. If the shape is changed, there should be a good reason.

Brand identity
Consumers recognize that the Pyramid is a message from the Federal nutrition community, a credible source to many consumers, even though some consumers may not understand or recognize the Pyramid as a standalone graphic/icon, nor use the Pyramid in planning their meals/food intake. The challenge is to effectively communicate how to make the right food choices using the existing shape, and to provide additional assistance to consumers for doing this. We strongly suggest that graphics are an essential and effective method for communication. The pyramid shape has become very familiar to consumers and has been somewhat effective in communicating basic messages.

Modifications to current shape
HHS cautions against over-simplifying the pyramid. Many people will not seek out additional information. For these individuals, the graphic should convey as much information, and as simply expressed, as possible. However, we do believe that clarifying "servings" and emphasizing and clarifying variety within each food category could improve the current graphic.

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If the Pyramid shape is retained, then the food groups and the subgroups within the Pyramid should be clarified. In an effort to help consumers improve food choices and be consistent with the scientific basis of the Dietary Guidelines Advisory Committee recommendations, the following are some suggestions for change:

- The Food Guidance System should be consistent with all of the *2005 Dietary Guidelines for Americans*. Reinforcing healthful food choices such as energy balance and limiting saturated fat and sodium intake should be communicated by the graphic.
- Numerous icons have been used internationally. Their merits should be examined.
- One option is that the base of the Pyramid (the 1st tier) be divided into three equal sections showing fruits, vegetables, and grains. The middle (2nd) tier could be the 2 sections for dairy products and meats/legumes, and the top (3rd tier) could be foods high in fat and/or sugar (i.e., most desserts) and alcoholic beverages.
- Another option is to arrange the food groups vertically, radiating from a base of physical activity. This option would communicate energy balance and choices within each food group that should be chosen more or less often based on the saturated and *trans* fat and sodium contents of the foods.
- Another example could be to present the food group servings in terms of equivalent calorie levels.
- If the current pyramid shape is retained, the graphic should convey the "better" choices within each group (e.g., whole grain products for the grain group; leafy and red/yellow vegetables for the vegetable group; citrus fruits, berries, and deep yellow fruits for the fruit group; legumes, lean meats, and poultry without skin for the meat/legume group; and low/non-fat milk, yogurt, and cheese for the dairy group).
- If the Pyramid shape is retained, consider making use of its three-dimensional shape to convey the importance of physical activity on the facing side.
- Perhaps a stick figure indicating physical activity (e.g., stick figure on the run), could be used to incorporate physical activity into the new graphic.

Disadvantages of retaining current shape

Although the current Pyramid shape is well-recognized, it may also be broadly misunderstood and has been the subject of criticism. We suggest considering the relative pros and cons or re-positioning it and clarifying misconceptions vs. starting fresh.

Missing concepts

The existing graphic as a standalone does not convey messages related to portion size, types of fat, or amount of salt or sugars in various types of foods shown in

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the pyramid. It also does not stress how frequently a food should be eaten (daily vs. sometimes).

Complexity
The current pyramid also requires the reader to study the graphic, understand the concepts, and then apply them to their meals and life. Some nutrition concepts may be too complex to be compatible with the current guide, for example types of fats are not explained in the current food pyramid.

Consumer confusion over multiple Pyramids
Unfortunately, the current pyramid sparked the development of other versions in efforts to better convey key nutritional concepts to the public (e.g., Harvard Healthy Eating Pyramid; Winnebago Tribe; IHS Diabetes Program; Mediterranean; Old Ways). Multiple food pyramids may make it difficult for the consumer to apply the concepts to their existing personal meal patterns.

A potential new graphic
It may be appropriate that a new graphic be developed. There are many elements to consider and messages that could be conveyed by a new graphic such as:

- The plate method utilized by the American Diabetes Association could be considered. It contains elements that have been tested and been successfully used for several years.
- A new graphic should convey types of foods consumed at meals and snacks and recommended portion sizes both through visual elements and written words.
- A new graphic could convey the types of foods that are recommended at meal times and snacks (e.g., fruit, milk, and grains at breakfast). It is also possible that a new graphic could be circular in shape to convey the life cycle and good health. The Canadian Coastal BC Native Food Guide is an example of how this might work. This coastal food guide also includes a picture of a nursing mother.
- The new graphic could allow some foods to fit midway between food groups. For example, potatoes fit midway between vegetables and grains.

B) Usefulness of proposed strategies to highlight motivational awareness and educational messages.

We encourage the use of motivational graphics and anticipate that the graphics will motivate people to think about the relationship of foods to their health and make better food choices. We also hope that the graphics will encourage increased physical activity and consumer awareness of the relationship between calories in (food) and out (physical activity). We understand that the motivational graphics may also encourage people to go to a Web site for more information, but hope they will not be limited to the Web site as a source of information.

HHS Comments in Response to USDA's *Federal Register* Notice of Proposal for Food Guide Graphic Presentation and Consumer Education Materials

Beat
for 1

Despite the best efforts of the Federal government and the nutrition community, the track record of the collective ability to influence dietary behavior and motivate consumers to improve eating habits is not evident. Graphics or changes in graphics are not enough to make such efforts effective. While educational efforts have not been as successful in the past as would have been desirable, educational efforts are probably still the most logical path to take. However, while educational efforts need to link to the graphic, they also need to be separate from the graphic (for example, links to a Web site that allow the consumer to go after and easily find what he/she wants to read, see, or use). We are aware that USDA has developed some interactive website materials and additional guidance, and more may be warranted.

We believe more information in nutrition curricula in schools is needed. There may be additional strategies that could be used and/or incorporated into the Pyramid.

Use of symbol vs. system

There could be value in the Pyramid remaining a symbol for its iconic value and an educational tool for healthy eating, to provide a needed framework for communicating multiple messages. Although currently imperfect as an educational tool, the Pyramid could be modified to promote more key messages than it presently does (e.g., to show distinctions within food groups (giving emphasis to whole grains, low/non-fat milk products, legumes, lean meat/poultry and fish) and giving prominence to reducing saturated and *trans* fats, sodium, calories, and added sugars.) The messages would then reinforce these visual representations. If a decision is made to replace the Pyramid, a clear transition strategy is needed so that consumers are not confused by what may be perceived as 'one more' nutrition message rather than an updated replacement that includes supporting materials.

Suggestions for slogans

With regard to a slogan, we suggest something like "Think before you eat" or something a bit longer like "Think before you eat. What you eat becomes you and affects your health." Many people seem to eat because food is readily available in work and social environments and at home. Eating may become associated with other activities (watching TV, doing homework, social events) and people may lose track of why and what they are eating. We suggest that a more concerted emphasis on eating for nourishment (and the pleasure of food taste) also be included.

For the icon/graphic that is to be publicly displayed on food products and elsewhere, it would be better to have a motivational symbol – something that inspires people to think about what they are choosing to eat and how it might affect their health or well-being. One example might be something like the current recycling icon that would convey a message like "The foods that you eat become you" or "You are the food you eat."

On the other hand, if the guidance messages are too complex for a single graphic, it's not likely that a slogan could better communicate this complexity. In addition, slogans, media campaigns, print distributions are generally short-lived and therefore would disappear after a relatively short period of time. This would significantly hinder an

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educational campaign having long-lasting effect, unless the program includes a strategy for renewal and updating.

Partnerships and Coordination with Health Professionals

The proposed strategy appears well thought out and comprehensive. However, it looks as if the success of the core messages depends on individuals working closely with professionals. As stated in the *Federal Register* Notice, the core messages are intended to help individuals use the food intake patterns in selecting appropriate food choices and amounts, but the detailed food intake pattern information will be disseminated primarily to professionals. We recommend that sufficient detail be made available for individuals who are motivated to make positive behavior changes to make informed choices without having to be guided by a professional.

We also recommend that additional emphasis be given to developing educational materials for professionals. This is based on the limited awareness of the available professional materials for the current system.

Testing of Messages - Special populations

It will be important to communicate these messages to diverse audiences. In testing these educational materials and messages, it will be important to include several groups that are in dire need of this information when field testing the draft guide. For example, including American Indian tribes located in different geographical areas in the United States will be useful. Tribes on reservations can provide an excellent opportunity for evaluation due to their isolated environment.

C) Advantages and disadvantages of the plan to individualize guidance in contrast to use of more generalized messages.

HHS recommends development of both types of general and individualized nutrition education messages depending on how and to whom they are communicated. Generalized messages can also be useful to provide framework for individualized messages.

General guidance is appropriate for those in the pre-contemplative stages of change and individualized guidance is appropriate for those who are ready to make some changes. It is critical that individualized messages motivate consumers and that the messages resonate with them personally.

However, it must be clear that the individualized messages are "individual" to a group based on their age, sex, and physical activity level, and not "individual" to any one particular person. This is not individualized guidance, but it does reach large age/sex/health status stages.

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Development of effective messages will require a clear understanding of the types of guidance that can be applied generally and when it is appropriate to individualize recommendations. The Dietary Reference Intakes process incorporates individual variation and yet is able to identify recommendations that are appropriate for the population. The *Dietary Guidelines* also identify the types of changes that individuals must make to achieve population targets that are important for lowering disease risk in the population.

It is important to keep in mind that too many messages and tools may clutter, even overwhelm, the receiver. This could discourage consumers and possibly turn them off. Individualized messages could be valuable for individuals who may not take the extra step to look at the Web site for more information. It is helpful to categorize the levels based on the consumer's interest and needs. Communicating actionable nutrition messages is recognizably a big challenge.

One suggestion with respect to the Pyramid is a series of pyramids for children, adolescents, active and inactive adults, and the elderly (e.g., pyramids by age, physical activity, and/or health status). Consumers could choose the pyramid that best fits them. This would be individualized guidance for large demographic groups. However, it may be difficult and confusing for consumers to have many different food guidance plans. It is difficult for consumers to understand how to determine their energy needs, and it would therefore be difficult for them to select among plan based on different calorie levels. Setting priorities and simplification will not be easy and consumer testing will be essential.

Another suggestion is to construct an interactive personalized pyramid for the consumer, based on user-provided personal characteristics and food preferences on the Web site.

Special populations

Although the focus might be on a generalized message, additional guides would be needed for American Indians and Alaska Natives. These population groups may find useful an easy-to- understand guide to help in the selection of a healthy diet and it would be possible to include native foods in the guide. Improved nutrition choices play a role in decreasing health disparities for American Indians.

In developing the food guide, consider and include needs of low-income people. Lower income people are often the recipients of government food and nutrition programs that utilize the food guide system.

D) Advantages and disadvantages of the planned focus on core messages in contrast to use of a graphic to represent educational messages.

We concur with the planned focus on core messages. Although graphic representations are appropriate for single concept messages, they are difficult to use for complex

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messages such as dietary guidance. However, HHS cautions against over-simplifying the Pyramid. Many people will not seek out additional information.

The development of the graphic, the slogan, the interactive personalized guidance, and the print materials should all be based on communications research. It is understood that a limited amount of research will be included as part of the contracted development. However, a thorough review of the peer-reviewed literature in this area (communications research related to health behavior messaging) should be conducted as well. Research including special populations with health disparities also will be important.

The educational messages should be separate from the core message or be linked to it, to provide more information. Too many messages and links will result in information overload. In continuation with the above idea, while the USDA Pyramid builders and maintainers should not respond to food fads, they should be sensitive to getting the message out to the public on misinformation and food fads. The messages should be individualized to the extent possible to reflect sensitivity to food fads.

The Pyramid should be the central core graphic or icon to provide an overall theme. The *Federal Register* notice indicates that "core messages will give specific recommendations for making food choices and will be sufficiently detailed to be actionable. They are proposed as directional statements that will improve food choices for most Americans in comparison to their typical choices." This is critically important and represents a major change from the previous guide. The three suggested core concepts (keep caloric intake balanced with energy expenditure; promote nutrient dense food choices; lower diet-related chronic disease risks by decreasing certain food components) are seemingly generally sound. However, a definition of nutrient dense foods has not yet been determined and agreed upon. Have these messages yet been tested? It is difficult to comment without knowing the results of those tests. For the third core concept, we suggest translating the nutrients (calories, saturated fat, *trans* fats, cholesterol, and sodium) into foods to help consumers understand which foods to limit. We also suggest as another core message that people should stop and think before they eat.

In particular, it seems, the public needs to know explicitly those key aspects of the food patterns that help them meet the criteria for nutritional adequacy, macronutrient balance, and so on. Thus, information about the following must be obvious to a variety of users:

- amount of whole grains needed;
- optimum proportions of dark green vegetables and legumes within the vegetable group;
- the relative amounts of juice vs. whole fruit;
- the appropriate variety of choices within the meat, fish, poultry, dry beans group;
- the concept of discretionary calories, such as how limited solid fats and added sugars need to be to maintain calorie balance;
- clarify that intake of solid fats and added sugars are not goals

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- clarify the limited range of foods that make up the food composite (i.e. if you choose not to drink skim milk, you are using some of your solid fat allowance)

We need to encourage consumers to think about their choices before they put items in the shopping cart, place orders in restaurants, select vending machine foods, or go down the buffet line. This message would be especially good if the motivational graphic somehow conveyed the importance of "think before you eat" or "remember, what you eat becomes you" or "remember, you are what you eat."

Literacy level should be appropriate. Because the health literacy skills of the population vary, it is important to develop messages and guidelines in a way that address differences in understanding of various health terms. Differences in educational level, culture and primary language should be considered as potential barriers to understanding. Nutrition education materials also will be needed that are appropriate for young children.

E) Key components for effective interactive educational tools.

Communicating daily intake patterns based on age, sex, and activity level through interactive tools might appeal to highly motivated individuals who take the time and effort to work with such Web tools. But depending on these interactive tools to work in large group situations, in educational environments where access to computers is limited, or to be effective with low-literacy, non-English speaking groups seems unrealistic. Using these tools often requires guidance, time, practice, and patience. Some existing tools, such as the Healthy Eating Index (HEI), are somewhat complicated for unsophisticated users. In addition, there are currently numerous interactive diet-related tools already being promoted on the Web. If the HEI is to be incorporated into the Food Guidance System, external evaluation is necessary to judge its effectiveness to motivate behavior change among consumers. Such evaluation should be structured to identify research needed to improve this tool.

Other modes of communication

We concur with the proposal to develop a portfolio of interactive, educational tools. However, we suggest specific attention be focused to develop tools for reaching hard-to-reach populations, such as rural, minority, elderly, low-literacy, and other vulnerable populations, such as Native Americans. Native people have high rates of obesity and diabetes and need a nutrition guide that applies to their lives. Native Americans on reservations rarely own a computer--however, health care providers and school teachers may have computers. In addition, many low-income people often do not have easy access to computers. The guide should specifically target (or include) lower income households.

Nutrition Facts Label

From an education and communication perspective consumers should learn about the new Food Guidance System and the Nutrition Facts label at the same time. These two tools should not be presented or viewed as independent learning tools. Instead, they

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While the release of the new dietary information, including the Food Guidance System, will make news and engender curiosity for a short period of time, other means of sustaining interest and education will need to be considered. We suggest once again the need to develop materials that combine Food Guidance with label use to reach shoppers at supermarkets, children in schools, students in colleges, etc. Even considering non-traditional venues such as movie theaters (including previews and ads), sport events, senior centers, health clinics, and fitness centers would help get some of this information into the hands of everyday consumers.

Additional comments:

Technical basis

We recognize the value of providing familiar food choices with the Food Guidance System. However, an inherent problem in the foundation of the Food Guidance System is the meticulous adherence to the exact proportions of foods currently consumed by Americans which are used to form food composites. These food composites are based on the weighted average of the nutrient contents of current consumption. These weighted composites then are used to determine the quantity of food to recommend to eat within each food group or subgroup to meet the Dietary Reference Intakes at specific calorie levels in the Food Guidance System. Because the current diet of many Americans is not healthful, basing the food patterns on these weighted food composites may impose serious limitations in guiding people to make healthier choices. For example if current consumption does not include rich sources of potassium, vitamin E, omega-3 fatty acids, or fiber, this could result in recommending larger quantities of food groups to achieve the recommended levels, bringing along extra calories.

Providing lists of foods rich in certain nutrients, instead of incorporating these levels into the food patterns, implies that it is the individual's option to choose to meet their optimal nutrient intakes. For example, the Food Guidance System food patterns at some calorie levels may fall short of the Adequate Intake for potassium just because most Americans do not currently consume foods that are rich in potassium. Similarly, the Food Guidance System food patterns at some calorie levels exceed recommended sodium intakes. These standards were set based on their effects on health, regardless of caloric consumption.

In previous comments, HHS supported using sedentary, reference-sized individuals. This is a useful approach that is highly relevant to the current realities and basing the nutritional goals on the Institute of Medicine's Dietary Reference Intakes and Recommended Dietary Allowances is appropriate. We also maintain that using cups and tablespoons are user-friendly measures, but may be taken colloquially and not interpreted technically. For instance, people may take a cup to mean the size of the cups they regularly use, rather than an 8 oz cup. It would be useful to also list ounces and grams as standard measures that are easily comparable in different settings.

Providing more guidance on fats (saturated and unsaturated) is useful. The allowances for added sugars seem appropriate. It would be useful to underscore the fact that the total

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calorie intake is an important factor and people should limit total calorie intake and not just the fat intake.

Serving sizes

There appears to be much confusion regarding serving/portion sizes. The current pyramid does not adequately convey what a "serving" of grains means, for example. Many individuals do not understand that a typical plate of pasta may contain several servings. The graphic representing the Food Guidance System should accurately reflect serving sizes. Individuals should not have to guess or search out the information.

The use of household measures that were proposed for use in the Food Guidance System may reduce consumer confusion and alleviate some of the confusion over what constitutes a "serving". To the extent possible, we will work together to coordinate the Food Label servings and the Food Guidance System.

Variety

The Food Guidance System and its accompanying graphics should clarify the variety of foods within the various categories. For example, we believe there should be information on how ethnic foods and combination foods (e.g., casseroles) can fit within the system.

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Food Guide Pyramid Reassessment Team
USDA Center for Nutrition Policy and Promotion
3101 park Center Drive, Room 1034
Alexandria, VA 22302

Dear Dietary Guidelines Advisory Committee:

The principal responsibility of the Food Guide Pyramid Reassessment Team is to revise the current U.S. dietary guidelines. I believe you have the additional responsibility to educate the public regarding good nutrition and keep your recommendations free of undue influence by the meat and dairy industries and political pressure.

The public needs to know the facts regarding good nutrition. The optimum diet that supports health is a low fat vegan diet that emphasizes complex carbohydrates. The preponderance of the scientific literature supports this position as does the Physicians Committee for Responsible Medicine. The American Dietetic Association's position on vegetarian diets states, "appropriately planned vegetarian diets are healthful, are nutritionally adequate, and provide health benefits in the prevention and treatment of certain diseases."

The three top categories on the food pyramid, Fats, Oils & Sweets, Milk, Yogurt & Cheese, and Meat, Poultry, Fish should be portrayed as optional. It should be made clear that these categories are not necessary for good nutrition since all nutritional needs are provided by the bottom three categories. The Committee should also point out in the Food Guide Pyramid the health risks inherent in eating from the top three categories.

In educating the public it is particularly important to dispel the myths perpetuated by the meat and dairy industry that adequate protein and calcium can only be obtained from meat and dairy products. I am particularly concerned with the inclusion of dairy products in the Food Guide Pyramid. The present guidelines are presented in such a way that leads the public to believe the only source of calcium is dairy products and that dairy builds strong bones. The facts are that dairy products include animal protein that flushes calcium from the bones contributing to osteoporosis. Dairy products can be high in saturated fat, cholesterol and environmental toxins which can contribute to heart disease, diabetes, and cancer. It does not have fiber and many people are allergic to it or are lactose intolerant. Please refer to PCRM's www.strongbones.org and Dr. John A. McDougall's articles about dairy on his web site at www.drmcdougall.com, click on "Newsletter Archives" "April 2003" for "Dairy Products – 10 False Promises" and the "May 2003" for "Marketing Milk and Disease". There is a serious question as to whether dairy products should be included in the Food Guide Pyramid even as optional. If included the risks should be clearly stated.

My other concern about the present pyramid is that legumes and nuts are shown along with animal products. The public is led to believe that the best and only source of protein are animal & animal products. There are more health promoting protein sources than animal and animal products. Humans can get plenty of complete proteins from plant-based foods and this should be pointed out in the Food Guide Pyramid.

Updating of the Food Guide Pyramid is vitally important to the health of the nation. I hope that the results of your work will portray the preponderance of the scientific literature on good nutrition and not be unduly influenced by the meat and dairy industries. The public deserves the truth.

Sincerely,

Ann W. Wheat, Physical Therapist

Ann W. Wheat

Belvedere, CA

AUG 27 2004

Florida Department of Agriculture and Consumer Services
CHARLES H. BRONSON, Commissioner
The Capitol • Tallahassee, FL

Please Respond to:

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Strange
1 of 1

August 24, 2004

Food Guide Reassessment Team
USDA Center for Nutrition Policy and Promotion
3101 Park Center Drive – Room 1034
Alexandria, Virginia 22302

Food Pyramid Comments

I support action by the Dietary Guidelines Advisory Committee to recommend that consumers eat 5 to13 servings of fruits and vegetable a day, depending on their calorie needs. To compliment this recommendation, the Food Guidance System should reflect this increased emphasis on fruits and vegetables. Placing fruits and vegetables prominently in the graphic is the best way to most accurately reflect the emphasis the Committee has chosen to place on fruit and vegetable consumption. Assuming the current shape of the pyramid is retained, it is important that fruits and vegetables be clearly shown at the bottom to graphically represent these recommendations.

Across the board, consumers in all age groups – from the very young to the elderly – are not meeting dietary recommendations for fruit and vegetable intake. In order to start moving consumers beyond the basic recognition phase of the pyramid, the use of graphic and key messages that focus on those areas in most need of change become critical if we are to effect real change in behavior and dietary habits.

Given the prominence of fruits and vegetables in the current Food Guide Pyramid and what we know about their important role in disease prevention and health promotion CNPP is urged to develop messages targeted toward consumers that will close the existing gap between recommended intake and actual intake as well as address the lack of variety currently consumed.

I support building on the equity in the Pyramid as long as it clearly communicates the need for consumers to make wise choices and specifically, as described above, to increase fruit and vegetable intake.

Respectfully submitted,

Carole Strange

Carole Strange
Program Administrator
Florida Department of Agriculture and
Consumer Services

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August 26, 2004

Food Guide Pyramid Reassessment Team
USDA Center for Nutrition Policy and Promotion
3101 Park Center Drive, Room 1034
Alexandria, VA 22302

Dear Food Guide Pyramid Reassessment Team:

I would like us to maintain the current shape of the USDA Food Guide Pyramid graphic. My reasons for this are:

1) The pyramid graphic had greater recognition (80% of the public) than any other food group system graphic we have used both in the United States and globally. The consumer research on the different shapes was valuable and the industry responded by utilizing the food guide pyramid extensively. I would rather see us put research and development resources into developing or modifying current graphics that could communicate some of the accompanying pyramid educational concepts we have been ineffective in conveying to consumers.

2) The limited industries developing educational tools to teach about the pyramid have invested in the current shape. Developing a new shape at this time in our economy when there is even less time for nutrition education in public schools would be detrimental to having resources to educate students beyond the current pyramid graphic message. I would prefer we keep or enhance the current Food Guide Pyramid graphic so that it would allow industry as well as individuals to invest time and resources on the educational messages that were intended to accompany the current graphic.

We have a real opportunity to focus on specific messages. The pyramid graphic and education information along with the Dietary Guidelines is used throughout all our USDA food assistance programs. Focusing on the key messages that we have failed to address in nutrition education across our food assistance program efforts would be a better use of our resources than redoing the Food Guide Pyramid graphic.

3) Many other countries have utilized our research and adapted a pyramid graphic based on the US Pyramid. I had the opportunity to attend an international session at the 2004 Society of Nutrition Education (SNE) meeting where food pyramid graphics from different countries were explored.

It was obvious from learning about how their pyramids were developed that the resources for research and development were quite limited in these countries. Not only would a new graphic impose a hardship on many in the U. S. it would on

Schure
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nutrition educators in these countries as well. If the United States is truly committed to working globally for the health of all individuals, our resources would be better utilized conveying the key education messages that research has shown consumers missed.

One of the individuals in the SNE international session audience had worked for a semester with a group of students at their university to develop their country's pyramid graphic. Cultural foods and customs had been incorporated. A number of countries had also worked to graphically depict some of the educational messages from the information in the U.S. Food Guide Pyramid booklet. I would like to see us explore the opportunity to convey additional messages as these countries did versus spending resources to do consumer research and development for a completely new graphic.

Thank you for soliciting response and I look forward to seeing and using the updated food guide.

Sincerely,

Judy Schure

Judy Schure
Colorado Dept. of Education Nutrition Unit

Denver, CO

AUG 27 2004

Community Action Program of Lancaster County

- Lancaster, PA
Telephone (- Fax

Child Development - Head Start - Day Care ◆ Outreach Services - Case Management - Housing Assistance - Senior Centers
Adult Socialization ◆ Housing Development

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Wasneuski
1 of 1

August 24, 2004

To Whom It May Concern:

Comments regarding the redesign of the Food Guide Pyramid:

- **Simplify**
- Combine fruit/vegetables category
- "Food Guide" – drop "Pyramid"
- The Circle/Plate is preferred
- Incorporate "how to use" (any keys)

  Ex. Australia, Sweden, Philippines, Canada
- Emphasize portion sizes
- Add "cultural alternatives" such as taco shell, pita, etc.
- Interactive capabilities
- Children and Adult guides
- **Simplify**

Sincerely,

Sharon Wasneuski

Sharon Wasneuski
WIC Director

SW/eo

AUG 27 2004

W.D. Class & Son • Wholesale Fruites and Vegetables • Maryland Wholesale Produce Market • Jessup, MD
• www.wdclass.com

August 25, 2004

Class
1 of 1

Dear Team,

In today's health conscious society, the recommendation for 5-13 servings of fruits and vegetables a day would be very beneficial to consumers. Fruits and Vegetables are under-consumed, and there needs to be more of an emphasis in this area for the public. They are a necessity in every diet, and an increase in their consumption will lead to better health. Diets high in Fruits and Vegetables have even been proven to aid in the prevention of cancer. Since they play such an integral role to good health, it would make sense to have them represent the bottom of the Food Guide Pyramid.

The recommended increase to 5-13 is an achievable goal now that more people are aware of the health benefits of fruits and vegetables in their diet. Produce is always easily available in grocery stores, and now with stronger support from school systems and popular national food chains, it is now easier for consumers to find products that offer fruits and vegetables. Schools have begun promoting produce more in their cafeterias, making the products more accessible to kids. These programs urge children to eat healthier and gain rewards from doing so. Popular food chains such as McDonalds, Burger King, and Subway are taking strides as well. These companies now offer healthy items such as salads and Atkins friendly wraps, which feature a large array of fruits and vegetables. Now stores that were primarily focused on unhealthy sandwich products, are promoting healthy fruit and vegetable choices and are becoming more appealing to a consumers. Fruits and vegetables are available everywhere and are not too daunting of a task for a consumer to find.

Having this 5-13 promotion on the final graphic of the pyramid would be very intriguing. By increasing the maximum number of fruits and vegetables consumed a day, more people will strive to reach for a higher average median than in the past. Those who have tried to meet the past requirements but have come up short of the minimum of 5 a day, should ideally aim to increase their consumption due the increase of the maximum requirement to 13. This will strongly encourage consumers to meet the objective in front of them. We support this move and hope that it plays a valuable part in leading to a healthier America.

Sincerely,

The Class Produce Group

Jessup, MD

AUG 27 2004

Martek®

Martek Biosciences Corporation

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August 27, 2004

Food Guide Pyramid Reassessment Team
USDA Center for Nutrition Policy and Promotion
3101 Park Center Drive
Room 1034
Alexandria, VA 22302

Re: Food Guide Graphic Presentation and Consumer Education Materials; 69 Fed. Reg. 42030 (July 13, 2004)

Dear Sir or Madam:

Thank you for the opportunity to comment on the USDA's proposal for the food guide's graphic presentation and consumer educational materials as part of the Food Guide Pyramid reassessment process. Martek Biosciences Corporation (Martek) develops, manufactures, and sells products from microalgae including specialty, nutritional oils for infant formula that aid in the development of the eyes and central nervous system in newborns and nutritional supplements and food ingredients that may play a beneficial role in promoting mental and cardiovascular health throughout life.

Martek applauds the Agency's efforts to review the food guidance system and the Center for Nutrition Policy and Promotion (CNPP) plans to develop and implement a system that includes focused messages and individualized educational tools. Martek urges the CNPP to affirm the critical role of DHA (docosahexaenoic acid) omega-3 in the educational components developed within the system, namely the core messages and framework that promote key nutrients, especially those that are low in typical diets.

Although the finalized dietary guidelines are not yet available, we have reviewed earlier drafts and it is believed that the finalized guidelines will recommend that consumers eat two or more servings of fish per week, particularly fatty fish that are high in omega-3s, for cardiovascular protective effects. Martek is concerned with this recommendation and we ask that USDA address these concerns in its educational messages for consumers. The FDA Food Advisory Committee (FAC) based its recommendation on fish consumption in large part because fatty fish provide significant sources of DHA and eicosapentaenoic acid (EPA). A review of one of the earlier draft FAC reports establishes that the FAC recognized that the DHA and EPA content of fish is largely responsible for the cardiovascular benefits. As recognized by the FAC and, as discussed in more detail below, there are extensive data supporting the importance of including DHA in the diet. DHA can be found

Zellar 2005-18

from sources other than fish, such as DHA-enriched eggs, foods that are fortified with DHA and dietary supplements. An educational message that focuses on fish, rather than DHA, will fail to inform consumers of the importance of looking for other foods that may be significant sources of DHA. This is of particular concern because there are many consumers who will be unwilling to increase fish intake or who are advised not to increase intake of fatty fish due to concerns with environmental contaminants in fish such as methylmercury.

We believe there are advantages to promoting both generalized guidance and individualized guidance in educational messaging. We agree that universal messaging for key nutrients is important and believe that DHA should be included in these key nutrient messages. We also concur with USDA's note that "one size does not fit all for nutrition guidance," in that nutrient requirements vary among individuals based on age and gender and on physiological states such as pregnancy, lactation, and specific health conditions which also influence the need for certain nutrients. To meet these needs, nutritional supplements or fortified foods may be required as part of a healthy diet. We provide herein suggestions for general and specific consumer messaging, based on supported scientific data, in order to increase consumer awareness of DHA as part of new science-based nutrition guidance and to encourage consumers to make positive, informed choices about the foods they eat.

More generally, while USDA requested comments and recommendations on channels of delivery for the Food Guidance System, Martek recognizes such recommendations, particularly those that have a good chance of being successful, are challenging until the final dietary guidelines have been established. Interested parties may have additional or quite different suggestions and comments after having time to consider the final dietary guidelines upon their release. Nevertheless, we do believe that the Food Guide Pyramid has been a fairly successful, well-recognized graphic and supports the development of a clear, understandable graphic representation to convey the new food guidelines. We also encourage the Agency to develop a website and other materials, in printed brochures and other mediums, that convey detailed information about the guidelines and how consumers can easily and successfully adapt their diets to comply with the guidelines over the long-term within today's lifestyles. Martek urges USDA to design detailed documents (e.g., Question & Answer sheets and other specific materials) that will allow consumers to get the information that they need regarding the food guidelines and sources of key nutrients from a reliable source. The detailed Q&A and other documents are particularly important to address those dietary recommendations that may be specific to subgroups of the population such as young children or pregnant or lactating women.

A recommendation that consumers should seek two or more servings of fish per week is at odds with the advisories issued by FDA and the Environmental Protection Agency regarding methylmercury in fish and shellfish and their consumption by women who are or may become pregnant, nursing mothers and

young children. 1/ The recent joint FDA/Environmental Protection Agency consumer advisory recommends four fish that should not be consumed at all by these individuals due to high mercury levels and stresses the importance of limiting consumption of all other fish to 12 ounces per week (2 average meals). It further recommends that this vulnerable population should limit intake of fish with moderate fat intake, such as albacore tuna, to one serving per week. When developing educational materials, it is imperative that USDA make it clear that women who are or may become pregnant, nursing mothers and young children should not consume two servings of fish due to concerns with methylmercury. Given the importance of dietary DHA to this subgroup, it is imperative that the USDA educational materials direct these consumers to other dietary sources of DHA.

Educating consumers about the specific beneficial nutrient, DHA, will give them the necessary information with which to make fully-informed decisions about the benefits and risks of sources of this vital nutrient. Importantly, the food advisory committee that evaluated methylmercury in fish discussed the consumer advisory in its deliberations and placed significant emphasis on the need to balance potential benefits of fish consumption with the potential risk of methylmercury exposure. 2/ When a food, like fish, is being actively promoted for its health benefits in the diet, there is a critical need for a balanced representation of benefits and risks. 3/ Education about, and promotion of the intake of DHA will help ensure that consumers obtain this nutrient from a variety of sources in the diet, which will decrease the ultimate risks to infants and young children associated with consumption of more than 2 servings of fish per week.

As an educational message, USDA should actively and directly encourage the use of DHA, not merely fish consumption, for a variety of reasons. As recognized in the FAC draft document, the majority of fish currently consumed by the public is finfish and shellfish that provide only a small amount of omega-3 fatty acids. The FAC document reports that "vegetable oils rich in [EPA and DHA] will become an important plant source of these fatty acids." We also note that food products are

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1/ What You Need to Know About Mercury in Fish and Shellfish, 2004 Environmental Protection Agency and FDA Advice For: Women Who Might Become Pregnant, Women Who are Pregnant, Nursing Mothers, Young Children (March 2004) available at: http://www.cfsan.fda.gov/~dms/admehg3.html (accessed Aug. 24, 2004).

2/ Center for Food Safety and Applied Nutrition (CFSAN) Food Advisory Committee Meeting Transcript, Methylmercury, Vol. 1-2 (Dec. 10-11, 2003) available at http://www.fda.gov/ohrms/dockets/ac/cfsan03.html (accessed Aug. 24, 2004).

3/ Indeed, the failure to include a message and information that balances the benefits and the risks of fish and shellfish consumption could lead many consumers to increase seafood and shellfish intake to greater than two servings per week, which would place unborn, nursing, and/or young children at an increased risk of neurological harm from mercury. In addition, the potential adverse effects of high methylmercury levels on cardiovascular health in all consumers should also be disclosed.

available or authorized for fortification as are numerous dietary supplements which deliver convenient and affordable sources of DHA. Consumers should be provided with full information regarding DHA and the array of sources for this nutrient.

Given the significant biochemical and functional differences between short chain omega-3 fatty acids (e.g., alpha-linolenic acid (ALA)) and the long chain omega-3 fatty acids (DHA and EPA), succinct messages specifically for DHA are necessary to assist consumers in maintaining healthy dietary practices. In 2002, the Institute of Medicine (IOM), a subdivision of the National Academy of Sciences (NAS), published *Dietary Reference Intakes: Energy, Carbohydrate, Fiber, Fat, Fatty Acids, Cholesterol, Protein and Amino Acids* (IOM Macronutrients Report) which contains an extensive review of the epidemiological and clinical evidence on the health benefits associated with omega-3 fatty acids. The IOM established an adequate intake (AI) and an acceptable macronutrient distribution range (AMDR) for ALA, the omega-3 precursor of DHA. The IOM characterizes ALA as essential because humans cannot synthesize it and because a lack of the nutrient results in adverse clinical symptoms. The IOM notes, however, that "the essential role of [ALA] appears to be its role as precursor for synthesis of EPA and DHA" (p. 8-18). The IOM recognizes the important, seemingly essential, role of DHA and EPA in the diet, by basing the essentiality of ALA on its role as precursor for DHA and EPA.

As discussed above, Martek believes that the food guidelines and educational messages related to omega-3 fatty acids should be specific to DHA. Consequently, we are providing substantial data set forth below to demonstrate DHA's importance and are suggesting a number of related messages on DHA that we urge the Agency to include in its materials. A bibliography of the studies outlined below is attached to this letter.

Educational Message – "Americans seldom get enough DHA omega-3 from what they eat and should look for foods containing DHA."

Educational Message – "Primary dietary sources of DHA omega-3 are limited to fatty fish and organ meats which are not prevalent in the typical American diet."

Educational Message – "For consumers who don't eat fish or want alternate dietary sources of DHA omega-3, look for foods fortified with DHA or consider supplementation with a dietary supplement containing DHA."

Current food consumption patterns suggest that pre-formed DHA in the US diet is progressively decreasing. Consumption of high DHA sources, such as canned sardines, have decreased by half since 1970 (USDA, 1999) and while fish consumption has increased from 1970, 48% of that increase is from fresh/frozen shellfish, a low fat/low DHA source (USDA, 1999).

Seller 5 of 18

Pre-formed DHA is the most reliable way to ensure that sufficient DHA is available to meet requirements imposed by growth and nutrient turnover content in tissues. The current CSFII data indicate that the DHA intake in the US averages about 57 mg/day for all individuals.

The recent NHANES specifically over-sampled children 5 years or younger to produce more precise nutrition information in this population group. NHANES data indicate that children in this age group consume only 20-30 mg/day of pre-formed DHA. The NHANES data also provides pre-formed DHA intakes not available from the current CSFII data. Specifically, Mexican American women of child-bearing age seem to be particularly at risk for low DHA status as their estimated intake of pre-formed DHA is only 45 mg/day and their dietary LA:ALA ratio is the highest among all women at 12.1:1. It appears that youth in American (< 18 years) may also be at risk for compromised DHA status as the estimated intake of pre-formed DHA for this population is 30 mg/day with a ratio of LA:ALA of 10.5:1.

Given that the conversion of ALA to DHA may be as low as 8% (Burdge 2004) a maximum of 128 mg of DHA may be derived from ALA assuming an ideal LA:ALA intake. While a dose response study of varying LA:ALA ratios on DHA derivation has not been completed, it has been suggested that a range of 5:1-10:1 is ideal. Current LA:ALA ratios in the US meet or exceed these recommendations in several subpopulations. Regardless, if one assumes that 128 mg of DHA are provided daily from ALA and that the average intake of preformed DHA may be as low as 20-50 mg for certain vulnerable subpopulations, the net DHA status for many may be as low as 148-178 mg.

Educational Message – "Women who are pregnant or lactating should increase their DHA omega-3 intake by selecting foods that are significant sources of DHA, such as fish, foods supplemented with DHA, or dietary supplements." Women in this group should monitor fish intake due to concerns with methylmercury in fish, a contaminant that can harm an unborn child's and young child's developing nervous system. When selecting fish, these women should follow the following recommendations:

- **Do not eat shark, swordfish, king mackerel, or tilefish because they contain high levels of mercury.**
- **Eat up to 12 ounces (2 average meals) a week of a variety of fish and shellfish that are lower in mercury.**
  - **Five of the most commonly eaten fish that are low in mercury are shrimp, canned light tuna, salmon, pollock, and catfish.**
  - **Another commonly eaten fish, albacore ("white") tuna has more mercury than canned light tuna. So, when choosing your two meals of fish and shellfish, you may eat up to 6 ounces (one average meal) of albacore tuna per week.**

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- **Check local advisories about the safety of fish caught in your local lakes, rivers, and coastal areas. If no advice is available, eat up to 6 ounces per week (one meal) of fish you catch from local waters, but do not consume any other fish during that week.**

Current literature clearly supports the need for higher levels of DHA during pregnancy, lactation, and growth and development. The data also indicate that intake of pre-formed DHA among these subpopulations is quite low. For example, pregnant and lactating women are reported to have the lowest DHA intake among women of childbearing age with a mean of 52 ± 12 mg/day vs. 62-71 mg/day among women of child-bearing age (14-50 yrs). Children ages 1-5 years also are reported to have low intakes of DHA ranging from 30-50 mg/day.

The fetus has a high requirement for DHA, particularly during the last trimester of gestation when brain tissue expansion is maximal. The brain of a full-term infant at birth weighs approximately 370 g and contains approximately 1 g of DHA (calculated from information provided in Martinez, 1992). If a constant rate of DHA uptake was maintained by the fetus throughout gestation, the fetal brain would deposit approximately 3.5 mg of DHA per day into tissue. It should be noted that plasma DHA does not efficiently cross the blood-brain barrier, and approximately 1 in 60 molecules of DHA present in plasma actually reaches the brain in neonatal primates (Su et al., 1999). Assuming that a similar rate of DHA uptake is observed in fetal brain, approximately 210 mg of DHA per day, throughout pregnancy, would be required to produce the desired DHA accretion in brain. The requirement for DHA by the human fetus is not constant, however, since the most significant rate of brain growth and retinal development occurs during the last trimester (Martinez, 1992). If 75% of the DHA (or approximately 0.75 g) required for intrauterine brain growth is deposited in the last trimester, the brain would accrete approximately 8 mg per day which translates into approximately 480 mg of DHA in plasma daily if the rate of DHA uptake by the fetal brain is similar to that of the baboon neonate.

Higher maternal and infant DHA status at delivery has been related to improved neurodevelopment and function in the newborn. Cheruku et al. (2002) have reported that sleep patterns of full-term infants born to US mothers with higher plasma phospholipid DHA at delivery are suggestive of greater infant central nervous system (CNS) maturity. Helland et al. (2001) have also reported higher EEG maturity scores for term neonates with higher concentrations of DHA in umbilical plasma phospholipids. Increased umbilical fatty acid composition is directly related to maternal status during pregnancy (Helland et al., 2001). Enhanced CNS maturity at birth appears to predict visual function later in life. DHA status at delivery has been linked to early postnatal development of the pattern-reversal visual evoked potential among term infants suggesting that DHA status may influence maturation of central visual pathways (Malcom et al., 2003). This pattern continues to be evident in later life as visual stereoacuity has been found to be significantly enhanced among 3.5 year olds whose mothers reported consuming high DHA diets during pregnancy and who exhibited significantly higher red blood cell phospholipid DHA (Williams et al. 2001). Maternal intake of DHA

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during pregnancy has also been reported to significantly enhance mental processing scores of children at 4 years of age (Helland et al., 2003). Most recently, Colombo and coworkers (2004) reported a significant enhancement of cognitive development at 18 months among children whose mothers had high DHA status at birth. Similar effects have been shown for long-term neurodevelopmental outcomes in newborns fed DHA-supplemented formula or DHA-enriched maternal milk. Not all studies, however, have found a significant association between maternal DHA status at delivery and infant developmental outcomes (Ghys et al., 2002; Bakker et al., 2003).

Recently, the UK Scientific Advisory Committee on Nutrition suggested that a woman would need to accumulate 22-25 g of DHA during her pregnancy to meet fetal demands, support lactation, and satisfy her own intrinsic requirements for DHA. To meet increased needs pregnant women in the US would need to at least double their intake of DHA, yet CSFII data suggests that pregnant and lactating women actually consume less DHA than their non-pregnant counterparts.

Production of milk during lactation places tremendous nutritional demands on the female. DHA levels in breast milk decline during the first several weeks postpartum in women consuming a typical North American diet (Fidler et al., 2000), most likely because dietary DHA consumption and DHA stores are insufficient in maintaining high levels of DHA in milk beyond periods of lactation $\geq$ 8 weeks (Otto et al., 2001). Otto et al. (2001) have indicated that dietary intakes of approximately 90 mg DHA, 1.1 g ALA, and a LA:ALA ratio of 12.5:1 per day fail to support the DHA requirements of lactating women. In the US, lactating women consume about 50 mg of DHA, 1.4 g ALA per day against a 10:1 LA:ALA ratio (CSFII Tables). Importantly, Francois et al. (2003) reported that dietary ALA supplementation (10.7 g/day) of women living in North America has no effect on breast milk or maternal plasma phospholipid DHA indicating that support of maternal DHA status post-partum relies directly on DHA from the diet. Several studies have found that increasing the level of DHA an additional 200 mg (total intake about 300 mg/day) in the diet of lactating women maintains higher breast milk DHA levels (Jensen et al, 2000; Fidler et al., 2000).

Consumption of high levels of DHA, either from breast milk or from formula, appears to have a significant impact on visual and neurological development, not only in the neonatal period, but also in later life. These ranges of observed benefits include improved visual acuity (Uauy, Hoffman et al., 2003), motor development (Birch, Garfield et al., 2000), maturation of sleep patterns (Cheruku, Montgomery-Downs et al. 2002), sustained attention and problem-solving (Willatts, Forsyth et al., 1998; Willatts, Forsyth et al., 2003) and other cognitive measures (Colombo, 2004). Additional studies have reported that supplementation with DHA beyond the neonatal period may improve cardiovascular health and reduce aggressive behavior in children (Hamazaki, Sawazaki et al., 1996; Hamazaki, Sawazaki et al., 1998; Hamazaki, Sawazaki et al., 1999; Engler, Engler et al., 2002; Forsyth, Willatts et al., 2003).

The data establish the importance of increasing DHA intake for women in this subgroup of the population. It is important, however, that these women be informed of the risks associated with fish consumption due to concerns with

methylmercury—a contaminant that can harm an unborn baby's or developing child's nervous system. The educational message must caution women in this group to limit intake of those fatty fish that are significant sources of methylmercury. The Environmental Protection Agency and FDA have issued a joint advisory that provides recommendations on fish intake for women who may become pregnant, pregnant women, nursing mothers, and young children. This advisory language must be included in any recommendation about increasing fish intake in order to make certain that this population is advised of the risks. The advisory is particularly important because the dietary recommendations encourage consumption of at least two fish servings per week while Environmental Protection Agency and FDA have made it clear that individuals in this subgroup of the population should eat no more than two servings of fish per week.

The failure to include a message that balances the benefits and the risks of fish and shellfish consumption could lead many consumers to increase seafood and shellfish intake to greater than 12 ounces per week, which would place unborn, nursing, and/or young children at an increased risk of neurological harm from mercury. USDA should use the same language in its educational materials that is found in the joint advisory issued by FDA and the Environmental Protection Agency on methylmercury in fish. This language would accomplish these purposes by allowing consumers to make informed choices and wise dietary decisions based upon all pertinent considerations.

Educational Message – "DHA omega-3 is a major structural fat in brain and eyes and is a key component of the heart."

DHA is an integral component of all membranes in the body. However, compared to other omega-3 fatty acids, DHA is significantly enriched in tissues such as the brain and retina and is essential for optimal function. DHA represents up to 20% of total fatty acids or approximately 1% of the total dry weight of the brain and up to 50% of the fatty acids in the retina (Uauy, Hoffman et al., 2001). The total DHA "content" within tissues is likely greater than that reported in most studies since conventional gas and thin-layer chromatography methods cannot detect DHA conversion products such as resolvins, plasmologens, and docosatriene products (Beaumelle and Vial, 1986; Gronert, Clish et al., 1999; Hong, Gronert et al., 2003).

In contrast, concentrations of the other omega-3 fatty acids, specifically ALA and EPA, in the brain and retina are minimal (Lauritzen, Hansen et al., 2001). In fact, ALA typically represents less than 0.5% of the total fatty acids in cell membranes of any tissue in healthy human adults (Lauritzen, Hansen et al., 2001). While ALA is termed an "essential" fatty acid, it's only known biological roles in the body are to supply energy to tissues and to serve as a substrate for formation of long-chain omega-3 fatty acids. The IOM Macronutrients Report states that "the physiological potency of EPA and DHA is much greater than that for [ALA]...." (p. 11-2) and concludes "the essential role of [ALA] appears to be its role as precursor for synthesis of [EPA] and DHA" (p. 8-18) and "[ALA] is not known to have any specific functions other than to serve as a precursor for synthesis of EPA and DHA" (p. 8-11).

Conversion of ALA to DHA can be highly variable between individuals, however, it is clear that conversion of ALA to DHA is particularly inefficient in the US population that consumes high levels of omega-6 fatty acids, predominantly linoleic acid (Burdge, 2004). Moreover, uptake of DHA by tissues such as the brain, retina, mammary gland and placenta is highly efficient, whereas uptake of ALA is significantly reduced in these tissues compared to pre-formed DHA (Bazan and Scott, 1990; Greiner, Winter et al., 1997; Haggarty, Ashton et al., 1999; Su, Bernardo et al., 1999; Lauritzen, Hansen et al., 2001; Larque, Demmelmair et al., 2003).

In adult humans, Pawlosky et al. (Pawlosky, Hibbeln et al. 2003) calculated the half-life (18±8 hr) and the mean flow rate (7.2 mg/hr) for the removal of deuterated-DHA from plasma. Over a 24 hour period, about 173 mg of DHA was lost from plasma and either catabolized or taken up into other organ systems. This level may provide a very conservative estimate of the amount of DHA required on a daily basis to maintain the plasma DHA concentration; however, demands by the whole body for DHA would be significantly higher.

Educational Message – "DHA omega-3 is important for brain and eye development in infants and supports brain, eye and cardiovascular health throughout life"

Delayed visual acuity has been repeatedly demonstrated in term and preterm neonates fed formula containing ALA as the sole source of omega-3 fatty acids (Makrides, Neumann et al., 1996). Supplementation of infants with formula containing pre-formed DHA in the first four months of life or after weaning from breast-milk at 4 to 6 months of age through the first year of life leads to significantly improved visual acuity compared to neonates fed formula without pre-formed DHA (Birch, Hoffman et al., 1998; SanGiovanni, Parra-Cabrera et al., 2000; Uauy, Hoffman et al., 2003).

Brain growth and the rate of DHA uptake by the human brain are maximal in the third trimester of pregnancy to birth. Between birth and 5 years of age, the human brain increases approximately 3.5-fold in mass and DHA content increases from 1 g to approximately 4.5 g (calculated from Martinez, 1992). While the rate of DHA accretion slows after 3 years, significant accretion continues between 3 and 5 years of age (Martinez, 1992). Based on DHA accretion curves from autopsy brains, and estimates of DHA uptake in primates, average daily dietary DHA intake required for the brain to accrete 3.5 g of DHA between birth and 5 years of age would be greater than 120 mg per day (calculated from Martinez, 1992). Data were adjusted for DHA uptake as referenced in Su et al., 1999. In addition, a small amount of DHA is lost from tissues daily and must be replaced to maintain optimal tissue DHA levels. Turnover can be estimated from isotopic studies that measure the amount of fatty acid extracted from plasma and retained by a tissue. Rates of DHA turnover in brain and other tissues of the body have not been studied in primates, but data from rodents suggests that between 2 and 8% of esterified DHA present in brain is replaced daily (Rappoport, 2001). Although estimates of DHA turnover in human brain have not been experimentally derived, turnover of

arachidonic acid (ARA) in the human brain has been measured and is known to be approximately 10-fold lower than turnover of ARA in rodents. Therefore, a conservative estimate of DHA turnover in humans would likely mirror the relative magnitude that is observed for ARA turnover in humans. Rappoport estimated that the uptake of DHA from plasma to rat brain was 2-8% of the total brain esterified DHA. Thus, if it were assumed that the same 10-fold difference in amount of fatty acid turnover observed between human and rat brain ARA also applied to turnover of DHA, then 0.2-0.8% of brain DHA would be replaced daily in the human brain. The amount of DHA lost from the brain due to turnover on a daily basis would therefore range between 10 and 50 mg per day. Given that average daily DHA intakes of American children range between 20 to 30 mg daily, dietary intake of pre-formed DHA alone would unlikely be able to provide sufficient DHA to support brain growth, and, more significantly, would not even be able to supply the brain with sufficient DHA to replace DHA losses due to turnover. Reliance on ALA as the sole source of DHA for children would not provide adequate DHA to support growth and DHA turnover in tissues.

The IOM Macronutrient Report summarizes the data on health benefits associated with diets containing omega-3 fatty acids and states "[a] growing body of literature suggests that higher intakes of ALA, EPA and DHA may afford some degree of protection against coronary heart disease" (p. 11-1 to 11-2) and "Growing evidence suggests that dietary omega-3 polyunsaturated fatty acids (EPA and DHA) reduce the risk of coronary heart disease and stroke" (p. 11-40). The Macronutrient Report identifies the mechanisms that may affect the ability of omega-3 fatty acids to reduce the risk of cardiovascular disease by preventing arrhythmias, reducing atherosclerosis, decreasing platelet aggregation by inhibiting the production of thromboxane, decreasing plasma triacylglycerol concentrations, producing a small increase in high-density lipoprotein (HDL) cholesterol with an accompanying decrease in triacylglycerol concentrations, decreasing proinflammatory eicosanoids and moderately decreasing blood pressure (p. 11-40 to 11-43). Additionally, DHA exerts numerous effects on cardiac and vascular tissue, including reduction of heart rate and heart muscle contractility, (Sergiel, Martine et al., 1998; Kang and Leaf, 1994), reduced vascular wall thickness (Engler, Engler et al., 2003), and improved vascular relaxation (Grimsgaard, Bonaa et al., 1998 ; Hirafuji, Ebihara et al., 1998; Mori, Watts et al., 2000; Leeson, Mann et al., 2002). Moreover, a prospective, open-label trial of LC-PUFA supplementation has shown that LC-PUFA supplementation reduces mortality, nonfatal myocardial infarction and nonfatal stroke (Stone, 2000).

Educational Message – "Increased DHA consumption is associated with decreased risk for chronic disease, including dementia, age-related macular degeneration, and cardiovascular disease."

In the past five years, epidemiologic studies in humans have consistently reported that fish consumption, and more specifically, dietary DHA may modify risk of dementia or Alzheimer's Disease (AD) progression. These studies are briefly reviewed below:

Kalmijn et al. (1997) conducted a prospective, population-based study to assess whether dietary fat consumption by 5,386 elderly individuals in the Netherlands was related to the risk of incident dementia or AD. In this study, consumption of more than 18.5 g of fish per day provided a significant reduction in the risk of incident dementia (RR = 0.4; $p<0.05$) and of Alzheimer's Disease (RR=0.3; $p=0.005$), compared to consumption of less than 3 g of fish daily.

Barberger-Gateau et al. (2002) conducted a study of 1416 home-bound elderly in southwestern France and reported that consumption of fish or seafood at least once per week was positively correlated with reduced risk of dementia ($P<0.009$). Those individuals who reported never eating fish had a 6.6-fold higher risk of developing dementia and a 5.3-fold greater risk of developing AD. This roughly translates into a 70% reduction in risk of incident AD by those individuals consuming more than one serving of fish per week as compared to those consuming less than one serving of fish weekly.

Morris et al. (2003) reported that higher fish consumption was positively correlated with reduced risk of developing AD. In this study, consumption of 1 or more servings of fish per week (equivalent to >100 mg DHA daily) was associated with a 60% reduction in the risk of developing AD as compared to individuals who consumed less than 1 serving of fish per week (p value for trend = 0.07). When regression analyses were performed to evaluate whether estimated individual fatty acid intakes had an effect on incident AD cases, reduced risk of AD was shown only for DHA ($p<0.02$) but not by EPA or linolenic acid content of the diet when data were adjusted to minimize the effect due to differences in age, sex, race, education, APOE-e4, and length of observation.

Tully et al. (2003) reported that serum cholesteryl-ester DHA and EPA levels were significantly lower in patients with AD, as indicated by score on the mini mental state examination, compared to controls. However, step-wise regression analysis showed that serum cholesteryl ester-DHA and total saturated fatty acid levels were the important determinants of the mini mental state exam score and the clinical dementia rating of patients with AD.

In a prospective study to assess interrelationships between dietary DHA, fish consumption, plasma phosphatidylcholine (PC)-DHA and the risk of dementia or AD, Schaefer et al. (in press) recently showed that both mean DHA intake (g/day) and mean fish intake (servings per week) estimated from food frequency questionnaires were positively correlated with plasma phosphatidylcholine-DHA levels in the study cohort. In this study, individuals having plasma PC-DHA in the highest quartile had a reduced risk of developing dementia (47% reduction; significant at $p<0.05$) and AD (41% reduction; $p=0.118$), compared to individuals whose plasma PC-DHA was within the lower 3 quartiles. When fish consumption, rather than plasma PC-DHA, was used as the predictor of disease risk, the study showed that consumption of more than 2 servings per week of fish (equivalent to >180 mg DHA daily) was associated with a reduced risk of developing dementia (43% reduction; $p=0.12$) and AD (59% reduction; significant at $p<0.05$) compared to individuals consuming less than 2 servings of fish per week. The fact that in this study, plasma PC-DHA was a significant predictor for risk of dementia, while fish

consumption was a significant predictor of AD, is intriguing and suggests that (1) a longer follow-up time may have been important to show that plasma PC-DHA is a predictor of AD risk and (2) future studies should not ignore the potential impact of plasma EPA and linolenic acid as predictors of AD-risk.

Prior cross-sectional studies conducted by Conquer et al. (2000) demonstrated that blood phospholipid fatty-acid profiles are altered in individuals with various types of cognitive impairment. Results from this study showed that the weight percentage of plasma phosphatidylcholine and phosphatidylethanolamine DHA and EPA were significantly lower in patients with AD compared to normal individuals of similar age.

The relationship between tissue DHA status and severity or type of dementia is not related to age. Although age is a significant risk factor for AD, brain fatty acid profiles do not significantly change with age in healthy elderly individuals. In contrast, brain phospholipid fatty acid profiles are significantly altered in AD. Soderberg et al. (1992) found that brain PE-arachidonic acid (ARA), PE-DHA, and PC-ARA were significantly reduced in the frontal gray, white matter, and hippocampus of AD patients compared to controls. In the pons region, the percent of total fatty acids as PE-ARA and PE-DHA were significantly lower in AD compared to controls, but PC-fatty acid composition of the pons did not differ significantly between AD and controls.

Two supplementation studies have been conducted in the elderly with beneficial effects observed in cognitive or behavioral outcomes.

In a study to evaluate the benefits of DHA on cognitive performance and visual acuity in the elderly, Suzuki et al. (2001) provided an oil supplement containing 15% purified DHA and 3% purified EPA for six months by addition to food to 30 volunteers between the age of 67 and 92 years. Of the 30 subjects, 22 had dementia. DHA intake was 0.64 to 0.8 g per day and EPA intake was approximately 0.47 g per day. Intelligence was measured before and after supplementation using a revised Hasegawa's dementia scale. At the end of the six month supplementation period, 18 of 30 subjects (60%) showed intellectual improvement. Intellectual improvement was observed in 6 of 8 (75%) patients without dementia and in 12 of 22 patients (54%) with dementia.

In a second cohort of 15 volunteers aged 58 to 84 years, supplementation with 0.73 g of DHA and 0.53 g of EPA per day for 3 months was associated with an improvement in visual acuity in 10 of 15 patients (67%) by 1 month of DHA supplementation. It should be noted, however, that Suzuki et al. (2001) failed to use a placebo in the performance of the study.

Age-related macular degeneration (AMD) is the leading cause of blindness in individuals over 75 years of age living in westernized countries. Few studies have fully investigated the relationship between DHA and macular degeneration. Gu et al. (2003) reported that carboxyethylpyrrole, an adduct of DHA, was higher in sera from AMD patients than age-matched controls, and likewise, anti-CEP

autoantibodies followed a similar trend. The association between dietary fat intake and AMD incidence is complex. For example, high fish intake is associated with a reduced risk for AMD, but only when the diet is low in linoleic acid. Furthermore, linoleic acid intake itself was associated with increased risk for AMD (Seddon, Rosner et al. 2001). The relationship between the frequency of fish consumption and risk of developing early or later AMD has also been reported in the Blue Mountain Eye Study. In this study, consumption of 1 to 3 servings of fish per month was associated with reduced risk for advanced age-related maculopathy, after adjusting for age and smoking. The risk reduction was greatest in individuals that consumed 1 to 3 servings per month (0.23).

* * *

Martek appreciates the Agency's consideration of these comments and looks forward to the continued advancement of the Food Guide Pyramid reassessment process.

Sincerely,

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AUG 27 2004

Jennifer Claire Darling ~ ~Beaverton, OR ~(

Food Guide Pyramid Reassessment Team
USDA Center for Nutrition Policy and Promotion
3101 Park Center Dr. Room 1034
Alexandria, VA 22302

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Darling
1 of 1

August 23, 2004

Dear Sirs/Madams:

I am delighted to learn that you are reassessing the Food Guide Pyramid. Although human health is somewhat complicated, it is very clear that our nation's children are far from healthy and that they are plagued by far too many chronic, degenerative diseases. While I do not place the blame entirely on their diets, diet is a key component to preventing many diseases and achieving the robust good health that should be most kid's birthright.

Specifically I am hoping you will address three issues that I've been investigating as a concerned citizen and as a mother.

1) The emphasis on grains should be changed. Children should be replacing most grains with fruit and vegetables. It is abundantly obvious to even a casual observer that most American children don't eat anywhere near the recommended daily amount of fruits or vegetables, but they are well over the daily servings of refined carbohydrates such as pasta, white bread, Snack 'foods', etc. If the pyramid model is to continue, then fruits and veggies should be the foundation. With starches/carbohydrates moved toward the top, above protein sources.
2) A distinction should be made between over processed food of all kinds and less processed foods, particularly natural fats from natural products being vastly superior to hydrogenated fats or de-fatted food. Our children need healthy fats for good brain development and metabolism in general. The fat phobia of the past decades is simply not warranted if you check the scientific literature carefully. Nuts, coconut oil and animal fat including full fat dairy products should be replacing all hydrogenated oils, cotton seed, canola, soy oils etc. Our children should limit the amount of processed vegetable oils they eat and instead eat Real Food with the natural fats nature provides.
3) Our children's parents should limit soda products to an absolute minimum. Only as treats- never considered as part of a healthy diet. And they should never ever be given to babies or children under 12. The daily doses of high fructose corn syrup and the phosphoric acid together are a terrible combination contributing to osteoporosis, obesity, diabetes etc. in our youth.

Thank you for considering public comments. I look forward to seeing the revised pyramid. I pray that you will not be unduly influenced by the corporate need to make large profits on cheap food. We are facing an era of epidemic childhood illnesses and it needs to be addressed at all levels in our nation.

Sincerely yours,

Claire Darling

AUG 27 2004

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August 23, 2004

Downey 1 of 3

Food Guide Pyramid Reassessment Team
USDA Center for Nutrition Policy and Promotion
3101 Park Center Drive #1034
Alexandria, VA 22302

Dear Sir or Madam:

My idea for the food pyramid centers around the acidity level of various foods. Otto Warburg won a Noble Prize in 1932 for his work on the cellular respiration of cancer cells (search key: Warburg prime cause cancer aerobic anaerobic) and Linus Pauling won a Noble Prize in 1954 for his work on Vitamin C and heart disease (search key: Linus Pauling chelation therapy). Their work proves that disease is directly attributable to high levels of acid in the body.

If we are what we eat then the food pyramid should include not only foods but also beverages like coffee, soda pop and alcohol which are so prevalent in our diet/society. We need to incorporate the acidity level of all foods and drinks. People will then be able to more clearly see how what they eat/drink affects their health. Food can be medicine to keep from getting sick as opposed to taking medicine to get well.

I have enclosed a copy of an acid level pyramid. The goal then has to become to keep your basic ph level at about 7.4. All we have to do eat/drink enough of the "good" things to counter the "bad" things to maintain that 7.4 body ph level. Get yourselves some ph strips and test your own saliva ph level some morning before you brush your teeth. This is too easy really. The problem is getting someone to admit there is a direct connection between high acid levels and disease. Remember: sugar and fat turn to acid and (too much) acid can be bad (for you).

Sincerely,

Fran Downey

(Mr) Fran Downey

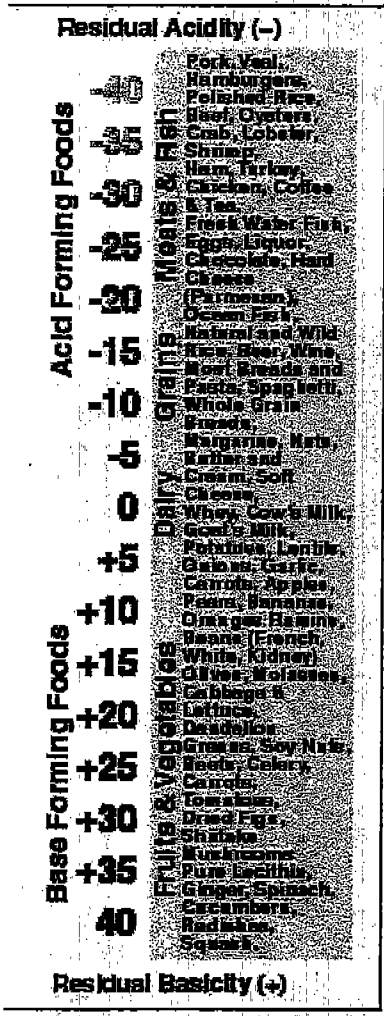
Acworth, GA

Downey 2 of 3

Which Foods Are "Acid-Forming" And Which Ones Are "Alkaline-Forming"?
Most high protein foods (such as meat, fish, poultry and eggs), nearly all carbohydrates (including grains, breads and pastas) and fats are "acid-forming." And most fruits and vegetables are "alkaline-forming." Although citrus fruits, such as oranges and grapefruit, contain organic acids and may have an acid taste, they are not acid-forming when metabolized, leaving no acidic residue. Similarly, Free Form Amino Acids are not acid-forming, but instead offer unique buffering capabilities to the body to help offset acidic wastes.

Barney 3 of 3

Acid and Base Forming Foods



How Can I Find Out My Body pH?
By testing your pH with Växa's Medical pH-Test Strips, you can determine quickly and easily, in the privacy of your own home, what your pH is. Växa Medical pH-Test Strips determine your urinary pH, which is generally a good indicator of how acid or alkaline your total body pH is. When urinary pH is continuously between 6.5 in the A.M. and 7.5 by evening, you're functioning in a healthy range. When continuously above this range you're too alkaline, and when continuously below it, you're too acid.

How Do I Rebalance My pH?
Watching your diet can help. If you're too acid, increase the number of fruits and vegetables you eat. If you're too alkaline, increase the amounts of acid-forming foods consumed. But an easier way is to take Växa's Buffer-pH+ daily to help balance your system while continuing to enjoy the foods you prefer!

How Does Växa's Buffer-pH+ Work?
Växa's Buffer-pH+ is an advanced cardiovascular and systemic (body-wide) homeopathic medicinal which works to safely and effectively balance an overly acid or overly alkaline system by buffering overly acid and alkaline residues and removing them from your body, as well as helping to dissolve toxic laden plaque. This allows tissues to be cleansed, and then healed naturally and more quickly, by the body.

Try Buffer-pH+ Today RISK FREE with Växa's 30-Day MONEY BACK Guarantee!

Order Now | List Ingredients | Suggested Dosage

Buffer-pH+ $29.95

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James F Carley
Tucson, AZ

24 Aug 04

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Carley
1 of 1

Food Guide Pyramid
Reassessment Team

USDA Center for Nutrition Policy and Promotion
3101 Park Center Dr, Rm 1034
Alexandria, VA 22302

Gentlefolk:

The Pyramid version glued below was printed in today's Arizona Daily Star, I believe the illegible item following "Fats" in the peak list is "Chips", but am uncertain.

At the base you have listed "Bread, Cereal, Rice and Pasta", which are now being attacked by the low-carb fans. I have no big quarrel with those items but, personally, eat more of the tiers 2 and 3 items, less of those in tier 1. However, I believe you've missed an important member of tier 1, potatoes.

Potatoes have taken a big hit because, so often, they are deep fried as thin chips or french fries (Bristish "chips"). What makes them nutritionally undesirable, in that form, is not the potatoes,per se but the fat in which they've been drenched.

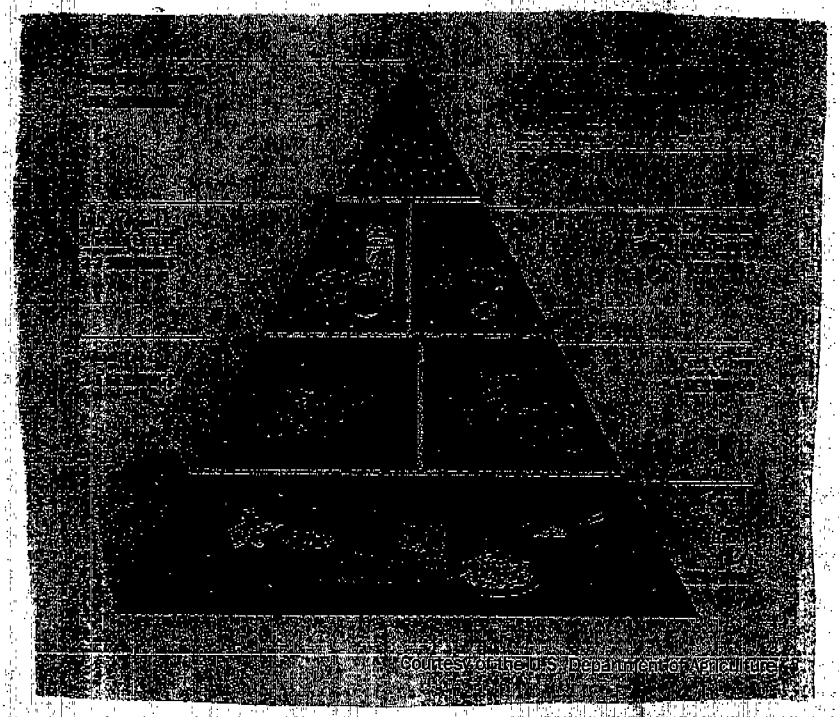
A prise-winning U of A agricultural researcher, now retired and whose name I can't recall, presented very persuasive data in a talk two years ago that potatoes, pound for pound, have higher nutrient contents than any of the principal ceral grains.

I suggest, therefore, that you add potatoes to your tier-1 foods. You might say, "potatoes (fat-free)".

Sincerely,

J F Carley

PS: Potatoes cost 15¢/lb breade $1-2/lb. Of course, potatoes must really be cooked.



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Haag 1 of 2

August 24, 2004

Food Guide Reassessment Team
USDA Center for Nutrition Policy and Promotion
3101 Park Center Drive
Room 1034
Alexandria, VA 22302

To Whom It May Concern:

As stated in your Backgrounder for July 2004, I am one of those Americans that is familiar with the Food Guide Pyramid, but only enough to generally plan my meals. I have read the 32-page Food Guide Pyramid Booklet after seeing it referenced in the Backgrounder. Below are my comments.

Graphic

Many diet programs offer reporting tools that use pie charts when displaying percentages of fat/sodium/cholesterol intake. Having a food pie chart instead of a pyramid may make it easier to visualize how much of each food group I actually eat compared to what I'm supposed to eat.

Display the suggested maximum intake of cholesterol, fat, saturated fat and sodium near the graphic.

Interactive Tools

I'd like to be able to record what I eat on a daily basis, and run a report to see if I've met my RDA's for minerals and vitamins. It would be useful to have a program that lets me input ingredients for a recipe, and come up with the complete nutritional value for that recipe. Doing it by long hand is time consuming.

A menu planner would be a wonderful addition to your interactive tools, especially if it tallies and creates data to measure progress in meeting goals. A single person can plan his or her week, and families can plan theirs. You list many meal examples in your booklet, but they all are geared towards families of four.

Booklet

Include alternatives to dairy. Taking supplements such as Lactaid doesn't help those who are lactose intolerant.

You have a vegetarian pyramid. I would like to see a corresponding Booklet, just like the one you have for the regular pyramid. Include alternatives to soy.

I'd like to see fad diets debunked, in particular the myth that 'white' foods contain no nutritional

Haag 2 of 2

value. I have obese friends that say they don't want to lose weight because that means they'll have to give up potatoes and pasta.

Overall Usefulness

Recently, I have lost weight by exercising and eating better. Because my HMO does not cover a doctor's or dietician's visit specifically to learn how to become healthier, I had to research many online and offline sources. It would be useful to have a one-stop learning place that helps manage diet and exercise. Having to try a variety of tools such as journals, calendars and programs can be discouraging, especially when I can't seem to find one that will meet all my needs.

Thank you,

Estela Haag

Jennifer Lanker
Mt. Vernon, WA

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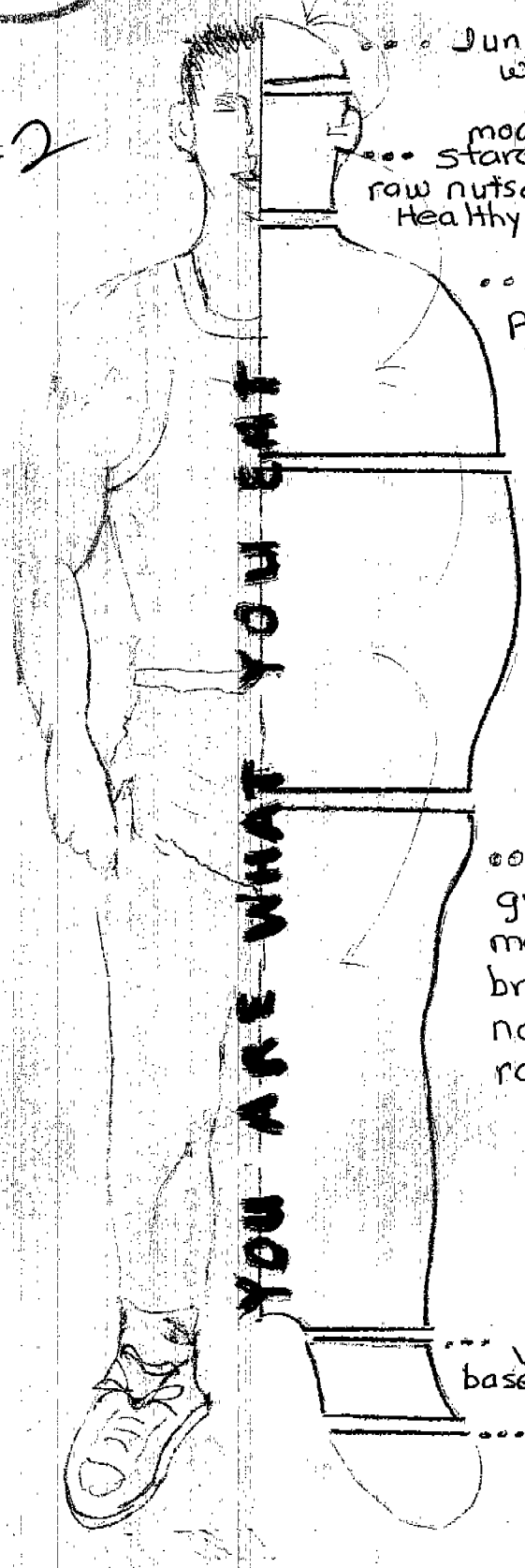
Canker 1 of 2

collage of foods



... Junk food; sweets; potatoes, white bread, white rice
BAD carbohydrates

moderate carbohydrates
... starchy vegetables & fruits
raw nuts and seeds; unsaturated fats; Healthy Essential fats

... Dairy; el dante cooked pasta; new potatoes; Lean meats; soy foods

... seafood; poutry; Legumes; sour foods; non-starchy, stringy fruit (glycemic index rating)
sweet potatoes or jams

Good carbohydrates
... unprocessed whole grain and cereals (at most meals); coarse grain breads; unprocessed rices; non-stachy vegetables; raw vegetable (in abundan
AICR.org 5-10 servings daily

... Vitamin and minerd food-based supplements JAMA 2002

... Exercise: resistance and aerobic

Glycemic Index Emphasis
(BURN or STORE your fat Reservoir
Eating Low-glycemic

Carter Dr 2

COMMENTS ON THE AMERICAN FOOD PYRAMID TO PROVIDE OPTIMAL BODY COMPOSTION:

As you can see there are many changes in the size of the sectioning, the various differences found within the same food group, the inclusion of supplements, and two kinds of daily exercise in determining the values needed to set forth a HEALTHY HUMAN BODY.

The size of the sections are related to their dominance in their role in helping burn fat and provide optimal nutrition needed from those particular foods. Their importance is found in the AIRC.com and glycemic indexing in Canada and Australia's literature, as well as in America's National Glycemic Indexing Association's literature.

The vegetable and fruit food groups have starchy and non-starchy properties and they either will help you store fat or burn it. That is why they have been separated and given less or more dominant characteristics.

The American diet consists mostly of the items found in the top layer. These aren't needed the least if not at all. They all cause the release of insulin thus causing the hormone burning reaction to be completely halted and cause the body to store all fats eaten at that meal. It also causes a faster digestion time making the body to return to feeling hungry at a much sooner time then eating slower-burning foods.

According to the JAMA 2002 everyone needs to take a multivitamin supplement.

And exercise must be part of our daily routine in the form of resistant and aerobic conditioning.

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Rebensteiger 1 of 1

August 24, 2004

Food Guide Pyramid Reassessment Team
USDA Center for Nutrition Policy and Promotion
3101 Park Center Drive, Room 1034
Alexandria, VA 22302

Dear USDA,

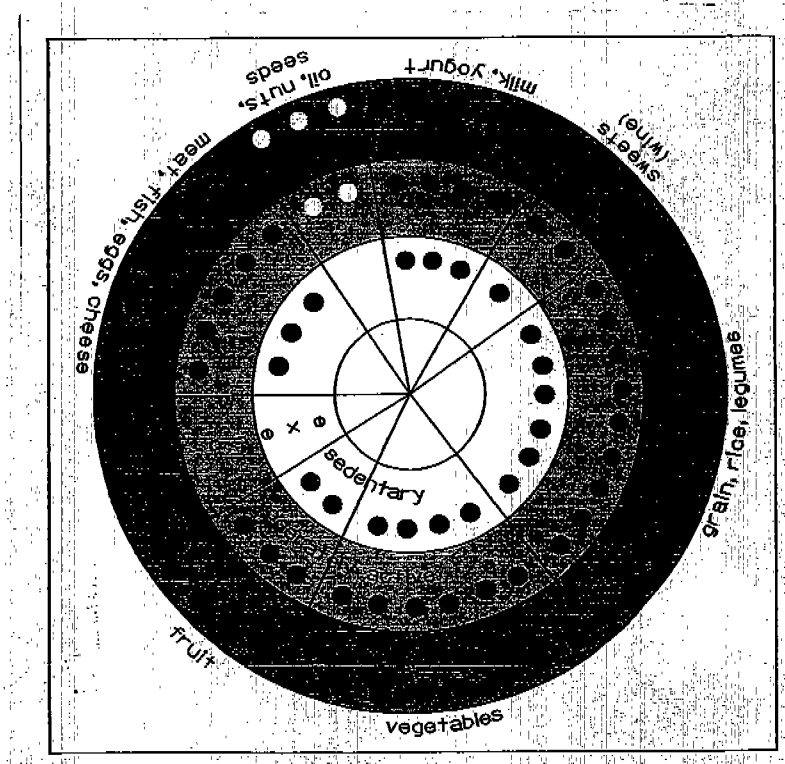
I am writing to submit to you a redesign of the USDA pyramid, which has been in the news lately because of controversy that it is too difficult to understand.

The revised graphic I have designed, which is more of a wheel or pie-chart, keeps the top-down configuration of the Food Pyramid while allowing users to use it according to their own level of physical activity.

I hope this is helpful in your efforts to redesign the Food Pyramid.

Sincerely,

Ivanka Rebensteiger



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Schoen 1 of 1

Marjorie R. Schoen

Norcross, Georgia

August 25, 2004

Food Guide Pyramid Reassessment Team
USDA Center for Nutrition Policy and Promotion
3101 Park Center Drive
Room 1034
Alexandria, Virginia 22302

Gentlemen"

A recent article in the *Atlanta Journal-Constitution* referenced your work in redesigning the current food pyramid.

I have recently been diagnosed with high triglycerides and told to watch my carbohydrate intake. I am **not** part of the carb craze reflected by interest in the South Beach and Atkins diets. On the contrary, I am over 5'7" tall and weigh only 118 pounds. I have searched the Internet to learn more about the carbs and which are simple and which are complex and have grown quite exasperated. I would like to see the pyramid and food labels give more information about carbs so I can make better decisions on the foods to concentrate on in my "diet".

I realize the pyramid can't cater to every possible illness, but with the obesity epidemic so rampant, it seems to me that more information on carbs on the labels would be helpful to everyone.

Thank you for your consideration and good luck in your endeavors!

Sincerely yours,

Marjorie R. Schoen

Marjorie R. Schoen

AUG 27 2004

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Beth Cadena

Cape Elizabeth, ME.

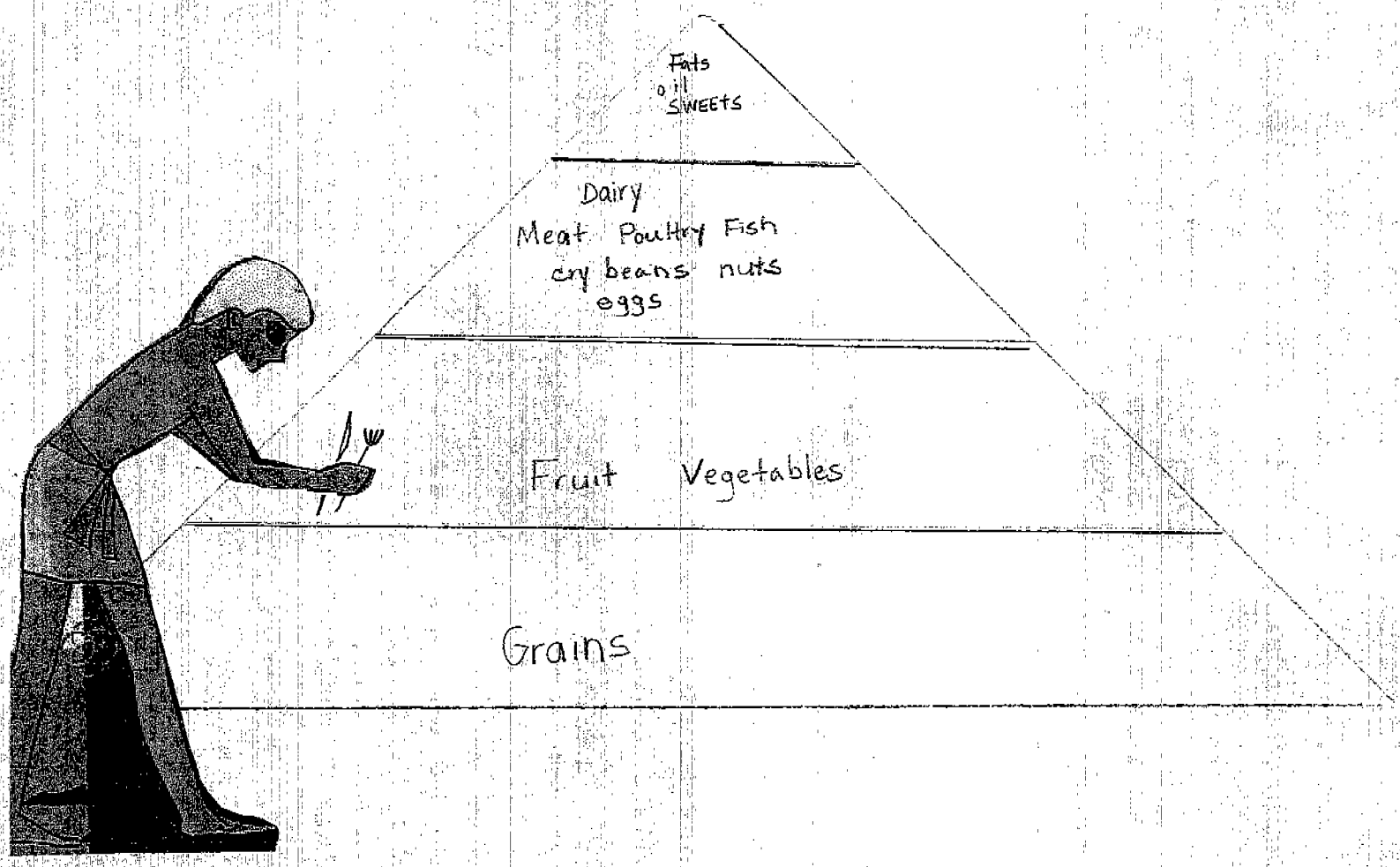
Aug. 25, 2004

Dear Reassessment Team:

My suggestion for a new slogan to support the food pyramid follows.

Cadena
1 of 1

IF YOU BUILD IT HEALTH WILL COME



Sincerely,
Beth Cadena

To: Food Guide Pyramid Reassessment Team
USDA Center for Nutrition Policy & Promotion
3101 Park Center Drive, Room 1034
Alexandria, VA 22302

AUG 27 2004

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Romano 1 of 2

From: Harriet Romano

Atlanta Ga

The present food pyramid along with high powered advertising are part of the reason we are the fattest and most unhealthy we have ever been in this country. Immigrants from other countries who adopt our way of eating become overweight and get many diseases not common in their countries. The change is long overdue. People are getting diseases in their youth that they used to get as they aged.

The American public should know the truth. We do not need just a few tweaks to the present pyramid. We do not need small changes that allow manufacturers to spin new products and consumers to gradually change their diets. The public needs guidance for changes NOW! The U.S.D.A. needs to get it right this time, our lives are depending on honest information. Individuals can make their own choices- just give us the truth. Enough studies are out there that prove the following proposed guidelines.

The TRUTH is needed - some will follow and some will not. We cannot change everyone. Some will eat what they want with no consideration of their health. People that want to improve are confused and need guidance, they need the truth. There are many diet books out there that do not work long term, this is why there are so many- because they do not work. With all of our intelligence and knowledge it is embarrassing to be the most overfed, overweight, malnourished country in the world. We have to stop letting the food industry and diet books, whose interest is dollars, affect the health of our nation.

This change in the food pyramid should not be influenced by any special interest food groups. It should be based on how we should eat to get the most nutrition out of our food choices. Our most nutritious foods are whole fruits, vegetables, nuts and seeds that do not come in packages. These contain a large amount of antioxidants, phytonutrients, omega 3 fatty acids, vitamins and minerals. These nutrients and antioxidants are protection for plants and will also protect us from chronic disease.

The nutrients we need to get from our food cannot successfully be Obtained from a pill. The nutrients we get from food work synergistically with each other. To get enough of these nutrients we need to be eating a lot of fruits and vegetables.

The Following Pyramid Is Proposed

The base should be the maintenance of energy, having an exercise Program and controlling calories and weight.

The next level should be a variety of organic healthy whole Carbohydrates such as fruit and vegetables having color: green, yellow, orange, red, blue, purple, with a large portion of this uncooked to preserve the nutrients.

The next level should be whole grains and starchy vegetables.

The next level should be legumes, beans, peas, sprouted nuts and seeds.

The next level should be limited amounts of fats from fruits, vegetable, nut and seed sources. With no more than 20-30% of our calories coming from these healthy fats.

A strong notation should be made on the pyramid of foods that should be eaten rarely and eventually eliminated completely from the diet. These should be: salt (no more than 1000 mg /day or less), sugar, high fructose, corn syrup, and other processed sugars, refined grains, trans-fatty acids,and saturated fat (all animal products have saturated fat). All of these foods need to be eliminated completely from the diet, not cut in half as proposed by the USDA.

What professional in the health and nutrition field is telling us that we are deficient in saturated fat, sugar, refined grains, or trans-fats and need to get them into our diet? These foods cause inflammation and can lead to many of the chronic diseases that plague our society. If these unhealthy foods are eaten then there would not be enough calories left for the fruits and vegetables containing a large amount of antioxidants, phytonutrients, vitamins and minerals which can keep the body healthy.

If enough of the levels two through five are eaten to maintain energy and a healthy weight there will be more than adequate protein, folate, calcium, omega 3 fatty acids, and other nutrients in the diet. (refer to the WHO's recommendations for protein needs). Animal protein and fat are not necessary for a healthy diet.

A plant based vegan diet with a healthy variety of uncooked fruit, vegetable, nuts, and seeds is the healthiest way to eat.

THANK YOU.

Marcey 1 of 4

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AUG 27 2004

Eleanore Marcey

Falls Church, VA

August 25, 2004

Food Guide Pyramid Reassessment Team
USDA Center for Nutrition Policy and Promotion
3101 Park Center Drive Room 1034
Alexandria, VA 22302

Dear Reassessment Team,
Thank you for the opportunity to give input on such an important matter. I am an artist who is also interested in nutrition and how it is being taught to children.

My interest in nutrition began in the early 1980's after my grandmother died of colon cancer. I came across a book entitled, **Diet: A Cure for Cancer?** which explained the macrobiotic diet. At that time, no one else was addressing diet as a prevention of cancer, much less a cure. It was the first of many books I would read on the subject of nutrition.

Macrobiotics is kind of the "boot camp" of diets. Most Americans (myself included) cannot maintain this lifestyle, but once I had read about it and tried to practice it, it changed forever the way I looked at food. It also made me appreciate the inherent wisdom of the diets of different cultures.

So much of what "recent studies show" is just plain common sense to older folks, but we modern Americans lost sight of this. Now we are beginning to see again the wisdom of our own traditional diets, when we ate simple foods, simply prepared. "Rich" foods, sweet drinks and desserts were always consumed in small quantities. The acidic quality of certain foods was recognized as harmful and reduced by cooking. A good portion of our daily food should be as close to its original state as possible: whole grains, fresh vegetables, dried beans (instead of canned). Processed foods are not only less nutritious, they *taste* less nourishing. That's why Americans are overeating; we finish a micro-waveable meal and, not surprisingly, still feel hungry. Finally, food should be prepared with care. Eating a home-cooked meal makes us feel better physically and psychologically. We all know this; we just need to go back to making it a priority.

Nancy 2 of 4

I strongly believe that nutrition should be taught in elementary schools as part of the regular curriculum. The USDA's Team Nutrition has provided beautiful materials and great ideas, but relies on volunteers to administer the program. A paid nutrition educator could function in the same way that many of our art teachers do, rotating among schools and coming every few weeks. (Even coming once a month would be beneficial.) Instead of art supplies, the teacher's rolling cart would contain a hot plate, cooking gear and a mini-fridge!

It's important to establish, at an early age, healthful attitudes about cooking food and enjoying it. This should be conveyed with the enthusiasm it deserves. Kids love to eat! Nutrition should be fun! As mentioned above, a lesson could contain a cooking demonstration, a generous tasting, and a discussion. Instead of a pamphlet, each child could take home an educational "toy" to remind them of what they are learning. This could be magnetic and stick to the family refrigerator. I've enclosed a mock-up of an idea.

Just as important is to have something permanent in the classroom that teaches children about nutrition and provides a way to "practice" putting portions of food on a plate. I pictured a magnetic folding screen (that can sit on a table) with an "empty" food pyramid printed on it. Magnetic photo images of food could be put in their proper places by children and removable "plates" would allow them to compose a meal. I've included another rough drawing of my idea.

Speaking as an artist, I feel that whatever foods you decide to include on the pyramid, it is best to make them photographs of real food, not icons or drawings. Real food, photographed well, looks appetizing, excites us, and that is the whole idea.

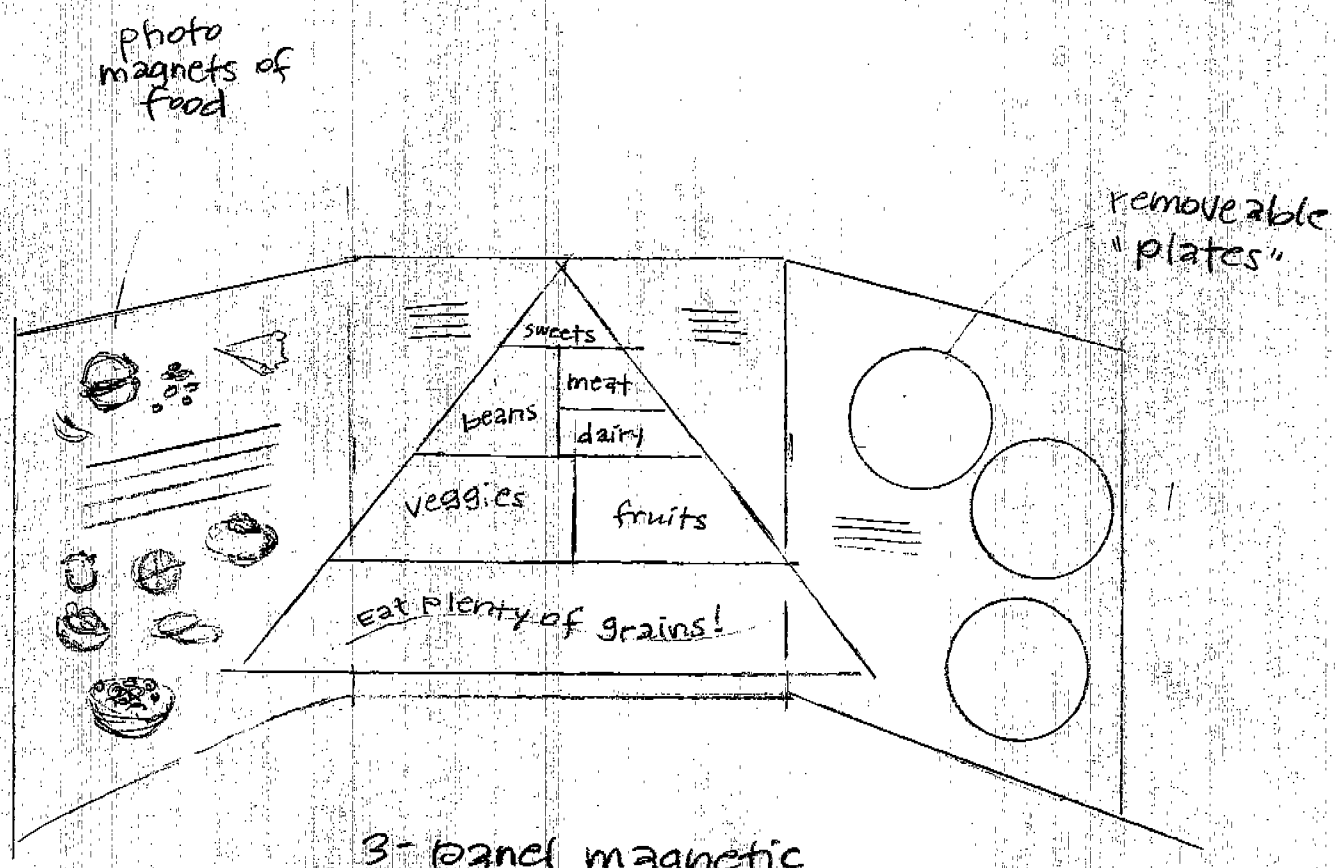
I also think that a fun character could lead children through lessons, especially when dealing with issues of being overweight. In this case, drawings and animation could be combined with photos of food. With that, I'll close. Thanks for listening.

Sincere best wishes,

Eleanore

Marcey 3 of 4

Eleanore Marcey



3-panel magnetic folding screen, to sit on a table.

(Not to scale, of course.)

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marcey
4 ever

Small amounts of fat are good, because they make you feel satisfied.

Nuts, oils, sweets, eat sparingly

Don't eat or drink lots of sweet stuff; it upsets your body's nervous system.

Drink plenty of water; it cleans your body inside.

Chew each mouthful thoroughly.

protein

beans

meat

dairy

Cooked vegetables 3-5

fruits 2-3

Carbohydrates are the building blocks of life.

Choose a healthy snack!

Eat lots of grains

pita

grits

creamy of wheat cereal

corn tacos

barley

tortillas

cous-cous

rice

oatmeal

pasta

bagels

6-11 servings

Are you getting enough of your ABC's?

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WASHINGTON, DC
DUBLIN, CA
SEATTLE, WA

August 27, 2004

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AUG 27 2004

DH

Cady 1 of 4

Dr. Eric Hentges
Executive Director
Center for Nutrition Policy and Promotion
U.S. Department of Agriculture
3101 Park Center Drive, Room 1034
Alexandria, VA 22302

RE: Notice of Proposal for Food Guide Graphic Presentation and Consumer Education Materials; Opportunity for Public Comment
69 *Federal Register* 42030, July 13, 2004.

Dear Dr. Hentges:

The National Food Processors Association (NFPA) submits the following comments on the notice referenced above.

NFPA is the voice of the $500 billion food processing industry on scientific and public policy issues involving food safety, food security, nutrition, technical and regulatory matters and consumer affairs. NFPA's three scientific centers and international office (Bangkok, Thailand), its scientists and professional staff represent food industry interests on government and regulatory affairs and provide research, technical assistance, education, communications and crisis management support for the Association's U.S. and international members. NFPA members produce processed and packaged fruit, vegetable, and grain products, meat, poultry, and seafood products, snacks, drinks and juices, or provide supplies and services to food manufacturers.

As the Center for Nutrition Policy and Promotion (CNPP) prepares the next evolution of America's food guidance system, it has the critical task of making graphic, communications, education, and motivational sense of dietary and food guidance for consumers. This is a great challenge.

NFPA offers the following remarks to highlight selected issues and questions addressed in the July 13 *Federal Register* notice. These comments formalize the remarks presented at the CNPP public meeting held August 19.

Motivational/Awareness Components of Food Guidance: Graphic
The current Pyramid graphic may not be perfect, but it performed better than others evaluated when it was first developed. Given the high consumer recognition of the current Food Guide Pyramid, NFPA believes that USDA should invest in refining the graphic, with the majority of resources devoted to

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public education materials to support the graphic as part of the food guidance system. There is compelling need to make the upcoming *2005 Dietary Guidelines for Americans*, the food guidance system, and the Nutrition Facts panel on food labels as complementary as possible. For food guidance, the challenge is to foster consumer use of the current Pyramid or any revised graphic so that it will be equivalent to its current recognition by consumers.

Educational Components: Individualized versus General Guidance
NFPA believes that individualized guidance should build upon general messages. Educational components must motivate consumers to choose foods wisely, whether for a healthy lifestyle, weight management, or weight loss. Realistic general messages need to lead consumers to the food guide, and individual specific messages should facilitate meeting personal diet and health goals. Additional strategies will be required to create effective food guidance materials that meet the needs of individuals who have dietary chronic disease management requirements.

Thus, communications messages and educational support materials must convey the spectrum of food product options available to consumers from both fresh and processed foods. The graphic must be flexible and educational components must reflect the reality of the forms in which consumers purchase and consume foods—fresh, minimally processed, juice, dried, canned, frozen, and multi-component foods.

There exists an abundant variety of processed foods through multi-component meals that provide high nutrition, convenience, and value to consumers. Whether it is a revised Food Guide Pyramid, an adaptation thereof, or a new graphic, food manufacturers must be able to use the graphic to illustrate how their food products, in forms as purchased, "fit" the food guidance system. NFPA believes this flexibility to responsibly depict individual foods, main dishes, and meals in the food guidance graphic will encourage understanding and use of food guidance by consumers.

NFPA recommends that this concept of allowing branded products to be depicted in the food guidance graphic be thoroughly evaluated with consumers. Several examples based on the current Food Guide Pyramid graphic describe this concept:
Yogurt: Allow the branded yogurt product to be depicted in the graphic in the milk, cheese, and yogurt group.
Beans: Allow depiction of a bag of beans or can of beans along with other foods in the appropriate categories—meat and meat alternate, and vegetable groups.
Juice: Allow the graphic to depict a glass or branded carton or container of juice in the fruit group.

Raisins: Allow depiction of a branded box or package of raisins in the fruit group.
Canned or Frozen Vegetables: Allow depiction of branded packages of vegetables; i.e., branded frozen broccoli package or branded can of green beans in the vegetable group.
Multi-component meal: Allow each component of a multi-component meal to be depicted in the graphic using relevant serving/portion sizes, such as chicken breast in the meat group, carrots in the vegetable group, and rice in the grains group.

Communications Modes: Reaching Consumers
Because of the individualized needs of consumers in their desire to craft healthful diets as part of healthful lifestyle, NFPA believes that multiple modes of communication and education are essential. Determining what is effective with consumers across a range of technologies, languages cultures, and motivation levels is critical. To achieve this, consumer understanding, testing, and evaluation of general and individualized messages is vital.

A critical component of food guidance education is to inform the public about servings and portions. To that end, NFPA wants to reiterate comments made earlier in the reassessment process about the critical need for harmony between serving and portion information across the *Dietary Guidelines*, food guidance system, and the Nutrition Facts panel on food labels. To maximize consumer benefit, NFPA believes that the food guidance system (as a component of *Dietary Guidelines*) should be compatible with serving sizes and use of household measures as used in nutrition labeling. We believe that if consumer nutrition education materials focus on servings, expressed as in nutrition labeling, tools such as the new food guidance materials and the Nutrition Facts panel can best be used to guide wise food choices for good health. The food industry can play a very positive role in the use food labels, websites and other communications methods to extend food guidance information.

Because of the inseparable link between physical activity and food intake for energy balance, weight maintenance, or weight loss, parallel materials are needed to motivate consumers about the need for physical activity as part of a healthful lifestyle. Existing food and activity pyramids for children provide a model from which to explore graphics and educational messages about both food and physical activity as part of a revised food guidance system for all age groups.

Support of Comments by the Dietary Guidelines Alliance
NFPA, a founding member of the Dietary Guidelines Alliance, enjoins and supports the comments submitted by the Alliance to this notice. Since its inception in 1995, the Alliance has been dedicated to providing consumers with concrete, practical advice about how to apply the Dietary Guidelines for Americans to their lives. We encourage USDA

to continue and strengthen the existing partnership with the Alliance to communicate to the public with consumer-tested, positive messages on food guidance.

In summary, as USDA proceeds forward with the next evolution of America's food guidance system, we encourage maximum flexibility of use and integration with government-wide, and other public and private efforts, to educate the public about "how to eat" and live healthful lifestyles taking full advantage of the processed and fresh foods available. Calories count, energy balance, and variety and enjoyment in food choices are themes to make America's trilogy of tools for healthful eating—*Dietary Guidelines for Americans*, food guidance, and nutrition labeling—a systematic and coordinated way to motivate the public to improved health.

We hope our comments are useful as CNPP refines and prepares a food guidance system that will serve as a motivational tool the American public so desperately needs it to become. If you have any questions, please contact Robert Earl, MPH, RD, Senior Director for Nutrition Policy at 202-639-5970; rearl@nfpa-food.org. Thank you for the opportunity to comment on these important issues.

Sincerely,

John R. Cady

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August 25, 2004

Kollmeyer
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Eric Hentges, PhD
Executive Director, Center for Nutrition Policy and Promotion
USDA Center for Nutrition Policy and Promotion
3101 Park Center Drive, Room 1034
Alexandria, VA 22302

Dear Dr. Hentges:

As you consider a new or revised food guidance system for Americans, and review the dietary recommendation set forth by the Dietary Guidelines Committee, we would like to provide additional information that might be helpful in considering graphic representations for the Meat and Beans group of the food guide.

As a good source of high quality protein, almonds are a natural fit for the Meat and Beans group. Because of their distinct nutrient-rich and heart-healthy profile, almonds should be included in the graphic representation of this group. The following outline provides benefits for increasing almonds' recognition in the Food Guide Pyramid.

The inclusion of almonds helps communicate food choices that would encourage vitamin E consumption from whole food sources.
To date, almonds have been recognized as an "excellent" and premier source of vitamin E. Specifically, almonds were recognized as a leading source of vitamin E in discussions at the January 2004 meeting of the Dietary Guidelines Advisory Committee. Additionally, almonds are included in Tables of the final report that places almonds as the second best food source of vitamin E, surpassed only by fortified breakfast cereals.

Vitamin E has also been identified as a priority nutrient in the preliminary report for proposed criteria for WIC food packages, increasing the importance of communicating food choices that offer vitamin E.

The almond image adds to the plant-based protein sources already included in the food group (beans and peanuts) and helps to balance the recommendation implied by the icon.
The Meat and Beans group communicates the need for nutrient-dense, protein-rich foods that also fit within a heart-healthy diet. The icon should continue to communicate the intersection of these nutritional imperatives and should also reflect a refreshing of the plant-based protein recommendation.

Peer-reviewed journals over the past 10 years have recorded the heart health effects of almonds in various studies including the PortfolioEatingPlan research published in Journal of the American Medical Association, dose-response research in the American Journal of Clinical Nutrition, and a meta-analysis of almond research published in The Federation of American Societies for Experimental Biology Journal, which demonstrated a four to nine percent reduction in LDL cholesterol when individuals consumed one to two ounces of almonds daily.

Acknowledging the wealth of science supports the position that almonds are a unique member of the tree nut family with the largest consistent body of research demonstrating a heart-ealth benefit, the highest vitamin E content and a measurable increase in vitamin E (alpha-tocopherol) status. Additionally, almonds offer more dietary fiber and calcium than any other tree nut.

Given the increasing per capita consumption of almonds (up from 0.7 pounds/capita to 1.0 pounds/capita), including almonds in the new icon will encourage consumers to choose a food that they already enjoy and to make a nutrient-dense, heart-healthy food choice.
Ongoing usage data show that almonds are the most-consumed tree nuts.

Attachment 1 illustrates what the revised Meat and Bean Group icon might look like with almonds added.

In conclusion, almonds increased popularity and consumption, essential nutrient package (particularly vitamin E) and unmatched heart health research among the tree nuts, make them a logical choice to enhance the Meat and Beans group icon.

We thank you for your consideration of this matter and welcome any questions or comments you may have.

Sincerely,

Stacey Kollmeyer

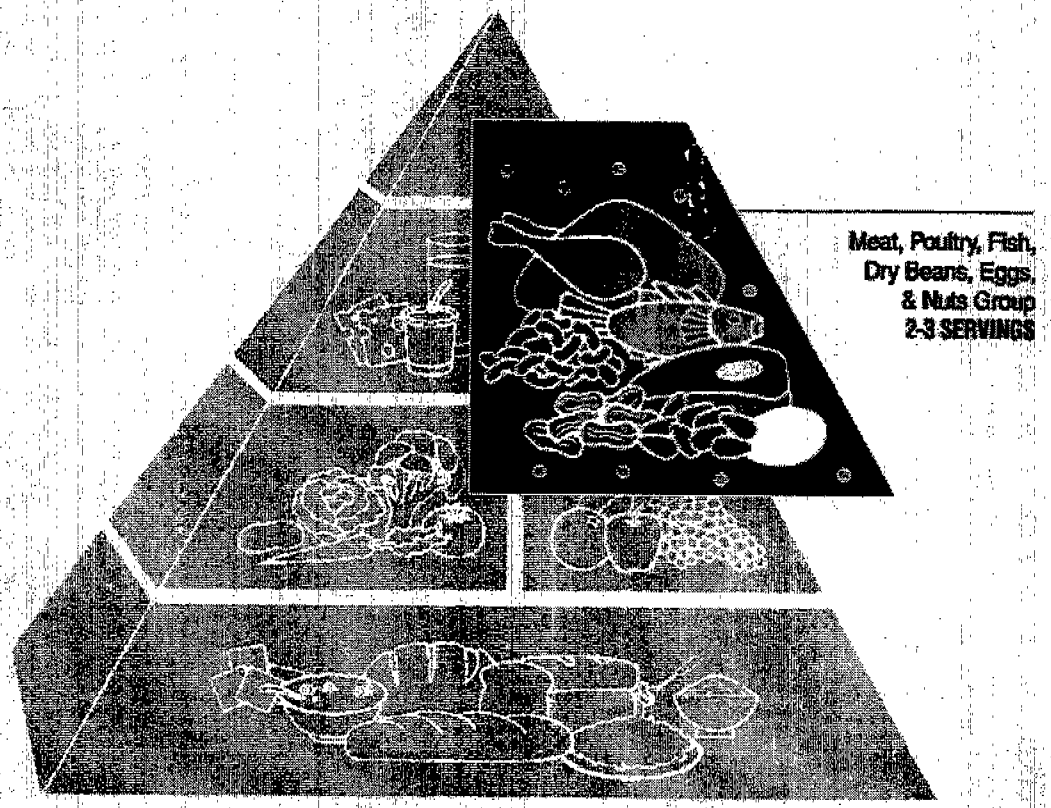
Karen Lapsley

Stacey Kollmeyer
Senior Manager, Communications
Almond Board of California

Karen Lapsley, ScD
Director of Scientific Affairs
Almond Board of California

Attachment 1: Meat and Beans Group Icon with Almonds Added

Food Guide Pyramid
A Guide to Daily Food Choices



Source: U.S. Department of Agriculture/U.S. Department of Health and Human Services

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August 26, 2004

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To Whom It May Concern:

I am writing to urge the Pyramid Re-assessment team to remove the Milk Group of the Food Guide Pyramid and call it the Calcium Group, including leafy green vegetables, etc. which the data supports as superior for provision and bio-availability of calcium. Not to be ignored is the vast proportion of the eating public that is lactose intolerant.

I also would like to suggest removing the Meat Group and calling it the Protein Group. Meat should be downplayed and other superior plant sources depicted.

As a concerned mother, improvements such as these would benefit not only the children but every age group in America. It's no secret that we have an obese and degenerately ill society.

Anderson 1041

1.25 million heart attacks annually
Over 20 million type 2 Diabetics
1 in 8 Breast Cancer rate
High Rate of Crohns Disease
Third in the world for Osteoperosis
Stroke
High Blood Pressure
Colon Cancer
Prostate Cancer
The growing threat of vCJD (now is the time to shine folks!) Just to mention a few.

Meat as you know is full of saturated fat and cholesterol trimmed or untrimmed, skinned or not and has NO FIBER.

Plant Foods on the other hand, are full of fiber and contain NO CHOLESTEROL and very little harmful fats in un-extracted form and plenty of quality protein.

The amount of Animals raised for food in this country –20 billion- and slaughtered for human consumption -10 billion- is ecologically untenable.

This is a good time to make a difference. Listen to the informed eating public not the Meat Industry or the Atkins Corporation!

I am certainly not suggesting you do as Dr. Neal Barnard and remove all animal products from the food groups..that would be IDEAL, but I am asking that you consider giving animal products a "bit- part" and making Plant Foods the All Stars….

Respectfully..

Sherwin Anderson

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August 26, 2004

AUG 27 2004

Food Guide Pyramid Reassessment Team
USDA Center for Nutrition Policy and Promotion
3101 Park Center Drive, Room 1034
Alexandria VA 22302

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Dear Food Guide Pyramid Reassessment Team:

The Nutrition Committee of Puerto Rico developed its own adaptation of the Food Guide Pyramid, but depends on many educational materials produced on the mainland for general education of the population and for education of individuals that need specific dietary advice. Therefore, we circulated a questionnaire at the annual conference of the Dietitians and Nutritionists Association of Puerto Rico to get feedback on the general satisfaction with the pyramid as a teaching instrument and their appreciation of materials that have been translated for use with Spanish speaking audiences. Sixty Dietitians/Nutritionists, licensed in Puerto Rico answered the questionnaire.

The first question asked if they considered the pyramid effective for planning a nutritionally balanced diet. There was considerable support for the use of the pyramid. The problems most frequently mentioned were that it was difficult to go from the graphic to a practical use of the information, that the pyramid form gives the impression that the top part is more important than the bottom. Several stated that it easy to use. Half that number said that it was difficult to explain. Portions, and their sizes, are a major stumbling block. They also criticized the lack of differentiation between complex and simple carbohydrates and the implicit idea that all added fat is bad.

There was a general consensus that the pyramid shape should be retained. Among the suggestions to improve the graphic were to emphasize recommended foods in the graphic, change the dark background, show foods in their portion sizes and assure that it could be copied in black and white. Several mentioned that they thought a circle, pie chart or dinner plate would be better.

In terms of a food guidance system with a logo and messages the overwhelming majority indicated that there should be a distinctive graphic accompanied by educational messages. The graphic should form a basis for teaching and not just be a logo. In spite of the strong support for educational messages there was considerable criticism of materials of federal government agencies that have been translated into Spanish. They understand that the materials produced by government agencies in terms of the quality of the illustrations, the clarity of messages in English and the strong scientific basis. However, the majority indicated that the translations are not adequate because they use vocabulary that is distinct to that used in Puerto Rico. The illustrations, although very good, show foods that are not commonly used and do not use food habits that are common to Puerto Rico.

We understand that we represent a specialized population, but that Hispanics or Latinos are the largest non-English speaking minority in the United States and that many publications are translated into Spanish. We strongly recommend that attention be paid

to the translatability of whatever messages be adopted to facilitate their understanding for non-English populations.

The Nutrition Committee of Puerto Rico, for its long history in development of food guides for our population would be very glad to cooperate with the USDA in adaptation of materials for Hispanic/Latino audiences.

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Sincerely

Winna T. Rivera, PhD

Winna T. Rivera, PhD
President of the Nutrition Committee of Puerto Rico
University of Puerto Rico
Medical Sciences Campus
School of Public Health
Nutrition Graduate Program

San Juan, P.R

AUG 27 2004

Department of Public Instruction
Bismarck, ND
Fax -
http://www.dpi.state.nd.us

Dr. Wayne G. Sanstead
State Superintendent

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August 26, 2004

Food Guide Pyramid Reassessment Team
USDA Center for Nutrition Policy and Promotion
3101 Park Center Drive, Room 1034
Alexandria, VA 22302

Dear Food Guide Pyramid Reassessment Team:

Thank you for the opportunity to comment on the proposed food guide graphic presentation and education materials. The topic I will address in my comments is the graphic presentation for the Food Guidance System. I am making these comments based on over 25 years of experience as a nutrition educator with USDA Child Nutrition Programs. This includes many types and venues for teaching, developing and using daily food guide systems and the use and development of educational materials based on the Dietary Guidelines originally issued in 1980. I have worked almost 20 years with the NET Program and now the past 8 to 9 years with Team Nutrition, so I use the graphic and educational materials almost daily with many levels and ages of people.

I feel very strongly that we need to retain the current shape and "basic look" of the Food Guide Pyramid (FGP). There are many reasons we need to maintain this graphic and they are listed below. It is much more necessary to use available resources to update and simplify the FGP in the needed areas. The time and money saved in not "reinventing the graphic" could be used to develop new educational materials to teach and motivate people to put the food guide to practice. Here is why we need to retain the Food Guide Pyramid:

1. It is recognized by 80% of consumers and they generally know it is a daily food guide system (it took years to replace the Basic Four with the Food Guide Pyramid in the school setting).
2. Consumers, educators and anyone using it to teach, recognize and/or understand the basic principles it represents.
3. It has been used widely in the United States and adapted and used by others worldwide.
4. Developers of educational materials (outside of government publication and materials) have developed and marketed some excellent resources that would take us years and dollars we don't have to replace.
5. Industry has grasped the concept and joined in the education of the consumer by using the Food Guide Pyramid.

Current assessments/evaluations of the FGP support that we need to retain the graphic Pyramid shape. What consumers did not understand was serving sizes and other messages in the accompanying literature. We have done an excellent job of teaching and marketing the Pyramid over several years. We should not start over with a new graphic and everything it entails, such as printing, marketing and teaching. That is a large expense and challenge we need to avoid.

We need to build on the base we have started with the Pyramid. We can save much by just clarifying and simplifying the messages, and developing new educational materials. We do not need to start over.

I look forward to moving ahead with the updated food guide and related materials.

Sincerely,

Loris Freier

Loris Freier, MS, RD, LRD
Assistant Director, Child Nutrition Programs
North Dakota Department of Public Instruction
Child Nutrition and Food Distribution Programs

Department of Public Instruction
Bismarck, ND

http://www.dpi.state.nd.us

Dr. Wayne G. Sanstead
State Superintendent

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August 26, 2004

Dear Food Guide Committee —

I would like us to maintain the current shape of the Food Guide Pyramid. The pyramid serves well as a visual tool to teach the public about healthy eating habits. I feel that it would be much more effective to maintain the familiarity of the pyramid shape and modify the message to encourage more whole grains, fresh fruits and vegetables and lower fat dairy and meat items. Along with this, a much stronger emphasis on normal portion sizes is needed. Certainly all of this and more can be achieved without sacrificing a symbol that is so widely recognized.

Thank you for your consideration.

Sincerely,

Linda Glaser

Linda Glaser, Manager
School Nutrition Programs
North Dakota Department of Public Instruction
Child Nutrition and Food Distribution Programs

Department of Public Instruction
Bismarck, ND

Dr. Wayne G. Sanstead
State Superintendent

http://www.dpi.state.nd.us

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August 26, 2004

Food Guide Pyramid Reassessment Team
USDA Center for Nutrition Policy and Promotion
3101 Park Center Drive, Room 1034
Alexandria, VA 22302

Dear Reassessment Team:

Thank you for the opportunity to comment. In my opinion, the prospect of changing the pyramid graphic at this time would not be wise or prudent.

As we all know, the food guide pyramid is currently under scrutiny for advocating too many carbohydrates, and favoring specialty groups. None the less, it **is receiving attention** and forcing people to take a look at it. Even though the accompanying recommendations and resources will change, the graphic should remain the same because the general population is familiar with it.

I can't recall a nutrition tool in recent history that has received more attention, and I have been a licensed registered dietitian for more than 20 years. I believe we should ride the wave of publicity, turn a negative into a positive, and use the publicity to our advantage to provide sound and reliable nutrition information.

The new graphic and nutrition education materials that accompany the new recommendations should be aggressively marketed. The healthy eating; balance and moderation message needs to be as prevalent as the Atkins and South Beach Diet. We can't make a difference if no one hears or understands our message.

Respectfully,

Patrice S. Anderson

Patrice S. Anderson, LRD, MMgt.
Assistant Director
Coordinated School Health
ND Department of Public Instruction

Sloane

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August 24, 2004

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Dear Pyramid Assessment Team:

I do hope that in light of the rapidly increasing elderly population, many with elevated blood pressure, your new guidelines for eating right with include the importance of low-salt diets. Check out the packaged and processed foods in most supermarkets and you will be appalled at the amount of sodium contained. Good luck with your project.

Sincerely,

Barbara Sloane

Barbara Sloane

Oakland, CA

AUG 27 2004

Nutritional Resource Foundation

Manitowoc, WI

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August 26, 2004

Food Guide Pyramid Reassessment Team
USDA Center for Nutrition Policy and Promotion
3101 Park Center Drive, Room 1034
Alexandria, VA 22302

Dear Team:

Subject: Proposed changes to the Food Pyramid

We petition that all references to foods that contain bleached, enriched white flour be removed from the Food Pyramid. Being a major contributor to obesity makes enriched flour an undesirable ingredient in the American food supply. Bleaching and removing wheat germ from wheat is totally unnecessary. Adding B-vitamins and minerals to unbleached, wheat germ rich wheat flour would be desirable.

The FDA has done very good research on flax and has shown its many health benefits. Other research in the last 15 years has confirmed these results; therefore, we think flax with its high omega-3 content should be listed as one of the whole grains.

The Food Pyramid should contain a recommendation for at least 5 servings per day of whole grain foods. Each whole grain food must contain at least 3 grams per serving of total dietary fiber and no trans fats, no enriched white flour, and no high fructose corn syrup or corn syrup.

Sincerely,

Paul A. Stitt

Paul A. Stitt
Trustee

PAS:jck

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The SCHWAN FOOD COMPANY™

August 26, 2004

Food Guide Pyramid Reassessment Team
USDA Center for Nutrition Policy and Promotion
3101 Park Center Drive, Room 1034
Alexandria, VA 22302

RE: Notice of Proposal for Food Guide Graphic Presentation and Consumer Education Materials

Dear Sir or Madam:

The Schwan Food Company welcomes the opportunity to comment on the proposed design and implementation of a new food guidance system, as outlined in the *Federal Register* notice dated July 13, 2004.

By way of introduction, Schwan is one of the largest branded frozen food companies in the world. The company employs more than 25,000 people in the processing, manufacturing, transportation, distribution and sales of frozen foods nationally and internationally.

Our comments are focused on the six key issues and questions outlined in the proposal.

1. **Retain the current Food Guide Pyramid or implement a new graphic.** Since its introduction in 1992, the Food Guide Pyramid has received broad coverage by the media, by health professionals and trade organizations, by schools and by the food industry. Pyramid recognition is high among children, teens and adults of all ages. The International Food Information Council (IFIC) indicates nearly 88% of US consumers recognize the Pyramid and understand the overarching messages it conveys. Unfortunately, most of the population fails to adhere to the principles outlined in the Pyramid brochure.

   However, Schwan believes the current Pyramid can be improved with some modifications and additions. Schwan recommends modifying the serving size information depicted in the Pyramid to be consistent with Nutrition Facts Panels. Schwan recommends adding pictorial information concerning the need for physical activity to balance energy intake. This information can help illustrate the distinction between various life stages. The Pyramid should reflect the difference between the energy needs and activity level of a typical school-age child versus that of a sedentary, middle aged adult. This information could be paired with guidance on the

(Hale) 2 of 4

appropriate number of servings of each food group for those who are trying to maintain a healthy weight or lose weight. Because most consumers seek simple ways to guide food selection, it will be essential to provide communication messages that recognize a variety of eating patterns and take into account ethnic influences and lifestyles.

Messages that link taste and health to a wide variety of foods give consumers greater flexibility in personalizing the Pyramid to their individual needs. Real meal examples can help consumers recognize that they can create satisfying meals that are nutrient dense. For example, a meal can include pizza, a garden salad and fruit for dessert or a stir-fry dinner with vegetables can be topped off by a serving of ice cream with fresh fruit.

2. **Develop messages that enhance awareness and motivation to achieve a healthful diet.** The messages you create can be as powerful as the graphic of any food guidance system. Industry has learned that successful brand marketing is the result of extensive consumer research. It is imperative that research be conducted to identify meaningful, motivational messages that meet today's diverse lifestyle needs while addressing age-specific consumers, and the demographics of the US population today.

   Because individuals go through various stages of change as they manage personal health and nutrition issues, the educational communications you construct need to build upon the core motivational messages. Messages should feature real life scenarios: single head of household families, families with both parents working, parents taking care of parents. Messages should consider the needs of children: 2 – 5 years old, teen-age girls, middle-age women and men, seniors; and include fair ethnic representation with Hispanic, Latin Americans, Black Americans, Asians, etc. Finally, we recommend that messages communicate the value of family meal time. Recent research by Dr. Mary Story and colleagues at the University of Minnesota (*Archives of Pediatrics and Adolescent Medicine*, August 2004) supports earlier findings that children who share mealtime with their family are more likely to be a healthy weight, to have more appropriate nutrient intake, and to perform better in school, and are less likely to smoke or use illegal drugs and alcohol.

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3. **Individualize guidance versus develop generalized messages.** As noted in the *Federal Register*, with respect to nutrition guidance, one size clearly does not fit all. Most educators will agree that health and nutrition messages are more meaningful and sustainable when consumers are able to personalize them. It will be important to recognize the wide variety of current food consumption patterns before creating messages designed to enhance the nutritional value and healthfulness of the diet. Including experts in social marketing in message development will increase the likelihood the messages will reflect the knowledge that changes in food habits may begin slowly with small steps.

4. **Focus on core messages in contrast to using graphics to represent educational messages.** The Schwan Food Company believes the graphic and educational messages you develop should be clear and concise. Creating core educational messages can augment graphics and help consumers understand and adopt new habits. Core messages should link the importance of portion size with the individual's unique nutrient and energy needs. However, testing consumer perception of such messages is essential.

5. **Identify the key components for effective interactive education tools.** Educational tools should include: videos, website, science-based interactive games, visual graphics, age-specific and multi-lingual messages. Consumer research can help determine the best options for the most effective educational tools.

6. **Identify the best channels of delivery for the Food Guidance System.** Schwan believes the best channels of delivery are: schools, colleges, worksites, trade associations, media – both print and advertising and food manufacturers. In reference to the statement that "Partnerships ***may*** (emphasis added) be sought with nutrition, health, and education organizations; trade associations; Federal, state, and local government agencies; and food companies," The Schwan Food Company requests that CNPP ***plan*** to partner with food companies, which can, after all, reach many consumers through their food packaging, advertising, and consumer education materials. To overlook or not involve such a powerful resource in conveying a new food guidance system would be short sighted.

Examples of how The Schwan Food Company has already provided dietary guidance to consumers include CD-ROMs with games teaching the Food Guide Pyramid – available for day care children and grades 1 – 3; newsletters that address Key Nutrients, Food Guide Pyramid and Activity Pyramid, Healthy Snacks for summer time and the Importance of Family Meal Time, etc. The newsletters are sent to school food service directors, include references to the scientific literature, and provide a parent version that is downloadable in English or Spanish. Schwan has found the schools to be very receptive of these newsletters, and the number of school districts that download the parent version to send home has been increasing steadily.

Thank you for the opportunity to comment on this important issue.

Respectfully submitted,

Hope S. Hale

Hope S. Hale, MS, RD, CD
Principal Nutrition Scientist

U.S. Canola Association

Washington, DC

Tel:
Fax:

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August 26, 2004

Food Guide Pyramid Reassessment Team
USDA Center for Nutrition Policy and Promotion
3101 Park Center Dr., Room 1034
Alexandria, VA 22302

Re: Docket ID fr13jyo4-34

The U.S. Canola Growers Association (USCA) is pleased to respond to comments solicited in the July 13, 2004, *Federal Register* regarding the Food Guide Pyramid. Enclosed is a paper entitled, "The Need for a Minimum Healthy Fat Intake," which supports our responses to specific questions posed by the Center for Nutrition Policy and Promotion (CNPP).

Advantages of retaining the current shape of the Food Guide Pyramid include the fact that it has visibility among American consumers and that its pyramid shape well represents intake ratios of food groups. Using food images and other graphics in the Pyramid is an effective way of communicating with the public. However, the top of the Pyramid needs to differentiate among different types of fats, namely between healthy *cis*-unsaturated fats and unhealthy saturated and *trans* fats.

One way to do so would be to divide the top section of the Pyramid, with the very top illustrating an upper limit of unhealthy saturated and *trans* fat intake and the lower portion depicting an appropriate intake of healthy unsaturated fats. Common food sources of the latter fats could be used as images, similar to other images in the Pyramid, or they could be represented by simple graphics, like squares with a definition in the key. Currently, all fats are represented by circles in the Pyramid. The circles should represent either healthy or unhealthy fats and another shape, like squares, should represent the opposite, and defined accordingly in the key. For example, *cis*-unsaturated fats could be represented by squares, saturated and *trans* fats by circles, and added sugars by triangles. Common sources of fats and added sugars should accompany the key or other definitions. If the top section of the Pyramid were to remain undivided, unsaturated fats (squares) should predominate.

An alternative shape to the Pyramid would be a pie chart, indicating recommended daily servings or percentages of different food groups as represented by food images in slices of the pie. Such a chart may better indicate recommended ratios or percentages of daily caloric intake per food group. But regardless of the shape of the graphic, the message about healthy versus unhealthy fats should be incorporated.

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The USCA supports the NCPP's proposed use of a graphic and slogan as motivational/awareness elements as well as the educational components proposed in the *Federal Register* for the food guidance system. However, the daily food intake patterns and core messages should be amended to differentiate between unhealthy and healthy fats. The USCA believes the proposed upper limit for added fats within the caloric goal for each food intake pattern should be specific to unhealthy fats and recommends the addition of a minimum intake for healthy unsaturated fats. USCA also calls for the purposeful increase of the essential fatty acid alpha-linolenic acid (ALA) in the diet, which is found in a few plant-based oils like canola oil. ALA is more difficult to obtain in the diet than the other essential fatty acid, linoleic acid (LA), which is found in many plant-based oils. Current research suggests that ALA, converted into longer chain omega-3s in the body, has cardio-protective effects.

The existing food guidance messages are appropriate as general messages with one exception: the type of fat matters as much as the amount of fat consumed. Consumption of unhealthy saturated and *trans* fats should be as low as possible, while healthy unsaturated fats should be consumed in moderation. USCA agrees with the CNPP's recommendation to lower intake of saturated fats, *trans* fats, and cholesterol, but supports substituting these unhealthy fats with healthy unsaturated ones. In addition, the USCA recommends the following changes to the existing Dietary Guidelines for Americans as they pertain to fats, oils, and fat consumption:

- In the "Build a Healthy Base" section, under the guideline "use plant foods as the foundation of your meals," the NCPP recommends that consumers "go easy on foods high in fat." The USCA believes the latter should specify foods high in saturated and *trans* fats.

- In the "Choose Sensibly" section under the definition of unsaturated fats, the USCA notes that canola oil is also a good source of polyunsaturated fats, including the omega-3 fatty acid ALA. In fact, canola oil has the highest amount of ALA of any commonly available vegetable oil in the marketplace.

- Under fats and oils in the same section, the NCPP advises consumers to "choose vegetable oils rather than solid fats (meat and dairy fats, shortening)." The USCA believes that this should be amended to "choose vegetable oils high in unsaturated fat" with the additional recommendation of using such oils for baking, frying, cooking, and other methods of food preparation where animal or solid fats may be used instead. USCA agrees with the current recommendation to keep total fat intake moderate with an emphasis on eating primarily unsaturated fats instead of saturated and *trans* fats.

- Under "Advice for Today" in the "Choose Sensibly" section, the USCA recommends specifying the use of vegetable oils high in unsaturated fat or low in saturated fat as a substitute for solid fats and partially hydrogenated shortenings. Not all vegetable oils are created equally. In fact, some contain significant amounts of saturated fat. USCA agrees

with the use of the Nutrition Facts Label to help choose foods lower in total fat, saturated fat, and cholesterol, but calls for the addition of unsaturated fats to the label to help consumers differentiate between unhealthy and healthy fats in food products.

As the NCPP notes, "one size" does not fit all for nutrition guidance. However, it is advantageous to have a single graphic that symbolizes healthy eating and carries universally important dietary messages like the Food Guide Pyramid. Similar to the existing Pyramid, the 2005 graphic should continue to be used as both a symbol and educational tool. However, many consumers do not grasp specific concepts, such as serving sizes and recommended daily caloric intake for their body mass and activity level, by viewing the Pyramid alone. This underscores the importance of accompanying educational materials.

Offering separate Food Guide Pyramids for adults and children is useful. Beyond these two major groups, however, it may be difficult to individualize dietary guidance with a single graphic. Offering more than one graphic for adults, for example, may be confusing. Accompanying educational material, however, can target subgroups of adults, as the NCPP proposes for 2005, based on age, sex, and activity level.

The Food Guide Pyramid for Young Children includes illustrations of children engaged in active pursuits to show the importance of physical activity. A visual representation of exercise in the adult Pyramid may be useful to remind Americans of the need for physical activity.

The USCA advocates the use of multi-media outreach to consumers with food guidance materials. The development of interactive online educational tools that can be customized to individuals based on age, sex, activity level, and health risk factors might be useful. An effective interactive tool is one that can be individualized, offering more specific information than the Food Guide Pyramid and core messages alone. The USCA strongly recommends revising the Pyramid and messages to support a minimum intake level of healthy unsaturated fats.

Internet-based and print educational materials are most accessible to educators and consumers. The Internet offers economic advantages, while rapidly reaching millions of Americans round the clock. However, print materials, and perhaps even a televised Public Service Announcement, should be used to reach people without access to the Internet. Partnering with nutrition educators, related associations, and university and government extension offices to disseminate print materials will be very helpful.

Thank you for your consideration of these comments.

Respectfully submitted,

Paul Tyler

Paul Tyler, President
U.S. Canola Association

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The Need for a Minimum Healthy Fat Intake

Canola Oil: A Golden Opportunity for the Nation's Health
August 10, 2004

EXECUTIVE SUMMARY

Congress enacted protection for consumers as part of the Nutrition Labeling and Education Act of 1990 (NLEA) that required the U.S. Food and Drug Administration (FDA) to mandate disclosures by manufacturers about the nutritional value of purchased foods. The mandatory disclosures include specific statements about the amount of each essential or well-established nutrient in each serving size of an offered product in a Nutrition Facts part of the label. Thus, there is mandatory disclosure of the exact amount and percentage in relationship to a daily diet of each healthy or required nutrient with the solitary exception of *cis*-polyunsaturated fat.[a] Alternatively, if the food product does not contain a required nutrient, there must be a specific disclosure of that absence. The required information on a food label also includes mandatory disclosures about the presence, in a purchased food, of substances generally viewed as unhealthy when consumed in excess amounts, such as saturated fat, cholesterol, sodium, and recently, *trans*-unsaturated fat. In sum, the consumer reading the Nutrition Facts panel is entitled to know the amount per serving and percent Daily Value of each essential or beneficial nutrient and also each potentially unhealthy substance in a food product.

However, in implementing this mandate, FDA made one omission. There is no required disclosure about healthy or essential fatty acids in the Nutrition Facts panel. All current declarations about the amount or percentage of minimum daily needs of *cis*-unsaturated fat are voluntary. Thus, the consumer is deprived of important nutritional information mandated by the NLEA: the amount of healthy *cis*-unsaturated fat and the percentage of this fat as a part of known daily needs or, as with other essential nutrients, a specific declaration that the product is not a significant source of this essential nutrient. *Cis*-polyunsaturated fatty acids (PUFAs) are essential nutrients for all humans. This omission is striking and should be corrected. We suspect that at the time of the initial promulgation of the regulations, a contingent within the nutrition community contended that the healthiest fat consumption was the lowest possible and mistakenly applied this thinking to all fats, including essential fats, possibly based on the generally high fat consumption in the American diet. We now know this to be untrue. First, as recognized by

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[a] *See* Section I for chemical classification and terminology applicable to fats.

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worldwide health authorities and the medical community, healthy fats are an essential and necessary part of the human diet. Maintenance of good health is not possible without the consumption of a diet containing a minimum of the essential fats linoleic acid (LA) and alpha-linolenic acid (ALA). Second, growing evidence also suggests that healthy fat consumption is necessary to reduce obesity or, consequently, that healthy fat consumption may displace unhealthy fat consumption. Recent studies have shown that weight loss diets with substantial amounts of essential *cis*-unsaturated fats and proteins, but reduced levels of carbohydrates, and without imposed caloric restriction, are at least equally effective as intensive caloric restriction in inducing weight loss. These studies suggest that the low fat, high carbohydrate diets implicit in the current nutrition label may not induce satiety without calorie counting and, thus, could contribute to obesity. Third, healthy *cis*-unsaturated fats, whether poly- or monounsaturated, are not associated with risk for heart disease, stroke, cancer, or other medical condition. Indeed, healthy *cis*-unsaturated fats, especially omega-3 fatty acids, may reduce the incidence of acute and chronic heart disease. The declaration and acknowledgement of the necessity of essential fatty acids as a mandatory minimum component in the diet should be a prime consideration in the upcoming revision of federal nutrition guidance and regulations. Fourth, restrictions on the use of health claims for products composed of healthy unsaturated fats, based solely on their unsaturated fatty acid content, should be revised or clarified to reflect the absence of any risk from appropriate necessary amounts of unsaturated fat in the diet.[b] Finally, the absence of recognition of the need for healthy fats in the diet in the Nutrition Facts panel and under other U.S. guidance and regulations should be corrected. The absence of any recommendation about necessary minimum unsaturated fat consumption by FDA stands apart from the recommendations of major international and national public health nutritional guidance, including the National Institutes of Health.

The Nutrition Facts panel is further flawed because the regulations require the manufacturer to misleadingly inform consumers that there is no lower limit of healthy fat content in the diet below which the consumer should not go. In contrast to every other healthy and required nutrient, the consumer is advised that any level of fat consumption below 65 grams in a 2,000-calorie diet is satisfactory. This is simply not true since there is an essential need for certain unsaturated fats in the diet. In contrast, minimum recommendations are set for all other essential nutrients: protein, carbohydrates, dietary fiber, vitamins, and minerals.

The omission of a required declaration for *cis*-unsaturated fats contrasts with other areas of voluntary federal nutrition regulations. For instance, FDA has promulgated a health claim that acknowledges that a diet low in saturated fat and cholesterol may reduce the risk of heart disease. Such a diet, given the essential dietary need for *cis*-unsaturated fats, must of course preferentially include these fats. It must also authorize manufacturers of healthy fats or oils that are sold as meal preparation ingredients to label their product with a statement that when consumed as part of a daily diet, the product may reduce the risk of heart disease and stroke.[c] Nutrition content

[b] *See, e.g.*, 21 C.F.R. §§ 101.73, 101.75 and discussion, *infra*, section V.

[c] The regulation clearly permits a health claim for the reduced risk of heart disease for prepared foods comprised of healthy fats based on the fact that they use an alternative to saturated and *trans* fats. While the regulation is not clear on its face that the same health claim would necessarily apply to the ingredients themselves, for those making their

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claims are permitted that tout the benefits of *cis*-unsaturated fat, an increase in *cis*-unsaturated fat relative to other comparable oils, or the relative absence of saturated fat relative to other oils. The agency has recently promulgated new regulations for *trans*-unsaturated fats that would similarly permit manufacturers of *cis*-unsaturated oils to make comparative nutritional content statements relative to these unhealthy fats. Additionally, as newer research has shown the potential benefits of omega-3 unsaturated fat, the agency has recently permitted statements about this healthy fat. The agency has permitted the touting of potential cardiovascular benefits of consuming oils containing omega-3 fatty acids. Finally, agency action or inaction in response to submitted claims related to structural or functional activities for dietary supplements also permit touting omega-3 fatty acid nutrient content. These permissible claims provide further support for the need to amend mandatory labeling requirements to require disclosure of *cis*-unsaturated fatty acid content in amount per serving and percent Daily Value. In addition, the FDA should clarify the applicability of health claims to healthful fats and oils.

The U.S. Canola Association believes that the time has come for mandatory recognition of the need for healthy fats in the diet and clarification of any voluntary labeling conditions that might restrict consumer information about the healthfulness of dietary unsaturated fatty acids. Canola oil itself serves as a prototype of an ideal healthy oil with its commercial availability, high content of *cis*-PUFAs (ALA and LA), its almost negligible content of saturated fat (7%), especially in contrast to all other commercial oils, and its relatively high content of the omega-3 unsaturated fat ALA (11%). Canola oil is also a good source of vitamins E and K. Among commercially useful oils, canola is nutritionally the best. However, all healthy oils should be recognized by a required disclosure of quality. The declaration of the need for healthy fats on food labels should be mandatory.

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IBWA
International Bottled Water Association

Alexandria, VA
Phone:
Fax:
Web: www.bottledwater.org

August 26, 2004

Food Guide Pyramid Reassessment Team
USDA Center for Nutrition Policy and Promotion
3101 Park Center Drive, Room 1034
Alexandria, VA 22302

To the 2005 Food Guide Pyramid Reassessment Team:

The International Bottled Water Association (IBWA) welcomes this opportunity to submit comment to the 2005 Food Guide Pyramid Reassessment Team as it considers viewpoints and other information for the Food Guide Pyramid graphic presentation and consumer education materials. IBWA is a trade association representing the bottled water industry and is the authoritative source of information about all types of bottled waters. Founded in 1958, IBWA's membership includes U.S. and international bottlers, distributors and suppliers. Strengthened by IBWA Model Code, the Association is committed to working with the U.S. Food and Drug Administration (FDA), which regulates bottled water as a packaged food product, and state governments to set stringent standards for safe, high quality bottled water products.

As noted at recent meetings of the 2005 Dietary Guidelines Advisory Committee, The National Academy of Sciences (NAS) Panel on Electrolytes and Water of the Food Nutrition Board/Institute of Medicine (FNB/IOM) on February 11, 2004, issued its report, "*Dietary Reference Intakes (DRI) for Water, Potassium, Sodium, Chloride, and Sulfate.*"

While the report did not include recommended intake levels for water, it did state that "women who appear to be adequately hydrated consume an average of approximately 2.7 liters (91 ounces) of total water -- from all beverages and foods -- each day, and men average approximately 3.7 liters (125 ounces) daily. These values represent adequate intake levels. Those who are very physically active or who live in hot climates may need to consume more water." To read the NAS report, press release and other material online, visit www.nationalacademies.org.

This means that men seeking to stay adequately hydrated would need to drink 100 ounces of water or other beverages and just over 72 ounces for women. These NAS findings exceed the previous general guidance to drink 64 ounces of water as recommended by the 8x8 guidance. Consumers, who wish to follow the NAS observation for adequate water intake for hydration, can indeed choose water– or bottled water – as their beverage of choice.

Since NAS did not provide a specific water consumption recommendation, the Food Guide Pyramid Reassessment Team has a unique opportunity to provide specific guidance for Americans as to levels of water intake that may help to maintain optimal hydration and health. Based on separate informal surveys and dialogue held at recent meetings of both the American Dietetic Association and the American Alliance for Physical Education, Recreation and Dance – whose members represent the nutrition, dietetics, fitness and health fields -- there appears to be confusion among practitioners due to a lack of solid guidance for water intake, which they may offer their patients and clients.

However, respondents agree that Americans are not drinking enough water and either "strongly agree" or "agree," according to IBWA's informal survey, that water intake guidelines should be included in the 2005 Dietary Guideline revision and the Food Guide Pyramid

IBWA stresses the importance of water consumption for proper hydration and refreshment and strongly encourages the inclusion of water consumption **guidelines** in the 2005 Food Guide Pyramid. The "Modified Food Pyramid for 70+ Adults," developed by the USDA Human Nutrition Research Center on Aging at Tufts University, has made a recommendation for eight daily servings of water to form the foundation for the "Modified Food Pyramid for 70+ Adults." By all accounts, recommended water intake is most appropriate for inclusion in the 2005 Dietary Guidelines and resultant general Food Guide Pyramid for all age groups.

The term "guidelines" is highlighted above as there is no "one-size-fits-all" prescription for water intake, much less for other food groups represented on the Food Guide Pyramid.

Water is an excellent choice for hydration and refreshment because it does not contain calories, caffeine, sugar, artificial coloring, alcohol and other ingredients that may contribute to overweight/obesity, hypertension and other maladies and water is an ideal drink of choice for all age groups and levels of activity.

For the active to moderately active person, water provides hydration and refreshment to replace fluids lost during exercise. For sedentary individuals, water hydrates and refreshes without adding calories. For all persons, water and proper hydration aids many other physiological functions including cushioning of the joints, aiding digestion, cognitive function and respiration.

Were there to be no specific water consumption recommendations presented in the Food Guide Pyramid, the Team should carefully consider graphic and/or text advice to drink water on a regular basis to stay hydrated and refreshed and, in the supporting educational materials, which supplement the Food Guide Pyramid graphic, a clear interpretation of the NAS DRI report as stated within these comments should be provided.

News and other organizations wrongly interpreted the NAS report by stating that NAS had rejected the general guidance to drink eight, 8-ounce servings of water (64 ounces) each day (the "8x8" guidance). In fact, NAS specifically did not make any intake recommendations or comment on the 8x8 guidance, at all.

Bottled water, as a package food product regulated by the US Food and Drug Administration (FDA) is a sensible reference point for the Food Guide Pyramid as it is a food product that delivers the above mentioned benefits of water while providing consistent safety, quality, convenience and good taste.

Sincerely,

Stephen R. Kay
Vice President, Communications

SNACK FOOD ASSOCIATION
An International Trade Association

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August 27, 2004

Food Guide Pyramid Reassessment Team
USDA Center for Nutrition Policy and Promotion
3101 Park Center Drive
Room 1034
Alexandria, VA 22302

Dear Food Guide Pyramid Reassessment Team:

The Snack Food Association (SFA) is an international trade association representing snack food manufacturers and suppliers. SFA membership includes smaller regionally based snack food companies in addition to large national branded snack food manufacturers. SFA members manufacture potato chips, snack bars, tortilla chips, pretzels, cookies, popcorn, crackers, meat snacks, pork rinds, snack nuts, and other snacks. We are pleased to have the opportunity to provide comments on the review of USDA's Food Guidance System – the Food Guide Pyramid – and to work with the USDA to communicate critical fitness and nutrition information to the public.

Advantages and disadvantages of retaining pyramid shape:

The pyramid is one of the most recognized nutrition education tools, in the United States and around the world. We believe that to overhaul the entire pyramid graphic at this point, as some have suggested, would be counterproductive. At the same time, some improvements are needed. Although the pyramid is very recognizable, only a small percentage of the population is following its advice. In one study published in the Journal of the American College of Nutrition, the authors identified significant gaps between the nutrition information contained in the pyramid and consumer eating behaviors. They specifically identified large segments of the adult population from a nationally representative sample that failed to meet USDA dietary recommendations for fruit and dairy consumption (1). In another article in the Journal of the American College of Nutrition, the authors found that less than 10% of older adults met the pyramid's recommendations for dairy and grain servings. USDA can continue to use the existing pyramid shape, but build slightly on its appearance. It may be useful to give the pyramid a three dimensional look.

Phone ◆ Fax: ◆ Alexandria, Virginia ◆ www.sfa.org

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Advantages and disadvantages of relying on core messages while still using the pyramid graphic, as well as, educational and motivational messages and effective tools:

The pyramid cannot convey all nutrition concepts to all audiences, but there are a few key messages within the existing pyramid that would benefit from refinement and focus. As a general approach, it might help consumers if the pyramid itself targeted one, two or three overarching nutrition messages and communicate those to the public, while accompanying educational materials provide additional reinforcement and explanation about its use. For example, we know that variety, proportionality, and moderation are major themes in the current pyramid, but the practical application of these concepts is not always clear to consumers. USDA can build on the existing success of the graphic and use that success to better highlight those messages that are most important to the public.

The supporting materials for the pyramid can also be used to convey more individual and relevant information for consumer's specific lifestyles. One example may be for USDA to develop calorie-specific pyramids. This may help consumers estimate specific calorie needs and know the corresponding amounts of food needed to meet those needs. A pyramid built around caloric intakes such as 1600, 2000, and 2500 can help a growing young adult and an adult female trying to maintain a healthy weight decide the appropriate needs for them. The broad nature of the current recommendations can confuse consumers as to what is needed for their lifestyle.

Another critical concept in need of further refinement and clarification is portion awareness. As the dietary guidelines point out, it is important that consumers understand that calories do count and that portion control is a critical component of calorie control. A serving is the amount recommended in consumer education such as the pyramid, but a serving is not necessarily the amount commonly eaten and it is not thoroughly understood by the consumer. In fact, many consumers overestimate their serving sizes of pasta, rice and meat. Even consumers who try to eat within their calorie needs have trouble with serving sizes.

We are recommending that USDA use this revision to reeducate consumers on serving sizes and portion control through the use of everyday objects. For example a medium baked potato is about the size of a computer mouse, and an appropriate apple or an orange serving is about the size of a baseball or tennis ball. We can encourage consumers to learn proper portions by helping them see what they eat everyday. Hardly any fruits on the market are the size of a tennis ball or baseball, which is the standard reference point used to measure a serving of fruits. If fruits and vegetables were adjusted to accurately reflect the produce in the market, then consumers may understand that the recommendation to eat five servings of fruits and vegetables is not unrealistic.

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To help consumers better understand dietary recommendations, it may be useful to provide more education about the amounts of foods commonly eaten by consumers in one meal and how those portions relate to the number of servings recommended in the pyramid. For instance, peanuts as a snack are usually poured in your hand before consuming; consumers could be advised to, roughly measure how much your hand holds and compare this to the serving size recommended. Another example is for a serving of pasta, which now is half a cup: if the serving were adjusted to reflect what consumers often eat, then the serving size should be more like two cups and the recommended number of servings in the grain group would be four or six. The same principles would apply to the fruit and vegetable group.

The Snack Food Association has always emphasized the need for increased activity among the public and believes that exercise is vital to the health of all Americans. Therefore, energy balance should be considered an integral part of the messages communicated in the pyramid. When consumers are aware of their caloric intake and how exercise fits into the equation, they can monitor their caloric input and output easier. Today, less than one-third of Americans meet the federal recommendations for a minimum of 30 minutes of moderate physical activity at least 5 days a week. Forty percent of adults engage in no exercise activity at all. It is clear that physical activity and exercise need to be made a higher priority in the United States. Leading health experts know that inactivity leads to poor health; as recommended by the dietary guidelines; daily physical activity should be part of everyone's life. The children's food pyramid contains information and visuals targeting exercise and activity, perhaps it is time to move in the same direction with adults.

Channels of delivery for the Food Guidance System:

We support USDA's plans to create individualized advice, and feel that the pyramid and dietary guidelines can benefit the consumer with a focused web site that allows them to tailor the food guidelines to more specifically fit their needs. Since most consumers do not have daily access to a personal health educator or coach, it would be rewarding to have a place to go for answers and guidance on their nutrition and fitness choices. All materials pertaining to the food guidance system should be accessible in one place and USDA should encourage all organizations that want to communicate nutrition guidance to link to this one site or tap into one resource. Again, a one-stop shop is needed.

As it has in the past, the pyramid must be based on the most recent, authoritative scientific information and should be consistent with the Dietary Guidelines for Americans. The revised pyramid should also be clear that the information is intended for healthy people and individuals with medical conditions or diseases should consult a professional who can assist with specific dietary needs.

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Thank you for considering our recommendations for revision of the Food Guide Pyramid.

Sincerely,

James A. McCarthy
President and CEO

1. Cleveland LE, Moshfegh AJ, Albertson AM, Goldman JD. Dietary intake of whole grains. *J AM College of Nutrition*. 2000; 19(3 Suppl): 331S-338S.

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Sun-Maid Growers of California

Kingsburg, CA
Ph: • Fax:

August 27, 2004

Food Guide Pyramid Reassessment Team
United States Department of Agriculture
Center for Nutrition Policy and Promotion
3101 Park Center Drive
Room 1034
Alexandria, VA 22302

Reference: Written comments on the proposed plan for revising the food guide's graphic presentation and consumer education materials.

Dear Sirs:

Sun-Maid Growers of California is the largest processor and marketer of dried fruits in the United States, and has been providing raisins and dried fruits to American consumers for over 90 years.

We will keep our comments succinct:

All health authorities in the world recommend significant consumption of fruits and vegetables. In the United States the American Cancer Society, the National Action Plan to Improve the American Diet, the Produce for Better Health Foundation and others all recommend that consumption of fruits and vegetables will lower cancer risk and promote better health. Fruits and vegetables are high in antioxidants, high in fiber, high in vitamins, and high in nutrients, which all have been proven to improve health, lower cholesterol, prevent cancer, and reduce obesity. Food advice is legendary of children being motivated to eat vegetables because "Mother said so" or because "an apple a day keeps the doctor away."

Vegetables are naturally remarkably low in calories, and fruits, because of their high natural sugar, are high in calories. Yet taken together, a diet high in fruits and vegetables is a diet of moderate calories and high in antioxidants, vitamins, minerals and fiber, all which promote better health.

The weakness of the present food pyramid is that it does not focus on fruits and vegetables as the <u>single most important element of good health.</u>

Kriebel 2 of 2

As a matter of national policy, consumers should be encouraged to make consumption of fruits and vegetables a first priority before they consume the other food groups. The present food pyramid gives the impression that breads, cereals, rice and pasta are the most important food group to consume for good health and this is plainly not true.

Unless focus is placed on fruits and vegetables as the most important element of good health, an effective change will not be possible and obesity and cancer risk will continue to increase.

Sincerely,

Barry F. Kriebel

Barry F. Kriebel
President

BFK/mas

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AUG

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August 27, 2004

Eric J. Hentges, Ph.D.
Executive Director
Center for Nutrition Policy and Promotion
3101 Park Center Drive
Room 1034
Alexandria, VA 22302-1594

Dear Dr. Hentges:

The Grocery Manufacturers of America (GMA) appreciates this opportunity to offer comments on the graphics and educational materials for the Food Guidance System that have been proposed by the Center for Nutrition Policy and Promotion (CNPP) at the U.S. Department of Agriculture.

As work proceeds on the revision to the Food Guidance System, CNPP identified six areas of particular interest to the agency. GMA and its member companies offer the following comments to the six areas identified by the agency.

A. ***Advantages and disadvantages of retaining current shape for graphic and other potential shapes to use as a representative of the overall Food Guidance System.***

GMA recommends CNPP keep the shape of the Pyramid. The Pyramid is widely recognized and the Department should capitalize on the brand equity it has built since 1992. It's not the shape that has hampered Americans from following the current Pyramid's dietary advice but the lack of understanding on how to make the underlying nutrition recommendations a reality. We fully agree that the dietary recommendations that form the basis for the Pyramid should be revised and updated based on the most recent nutrition and health science. Resources should also be devoted to building stronger educational tools that help bridge the gap between consumer awareness and behavioral change.

The agency has proposed to simplify the graphic and use it as a symbol to identify food guidance messages and materials, and to remind consumers to make healthful food choices. GMA recommends that the symbol be placed next to dietary messages placed on food packages. The symbol would alert consumers that a nutrition tip is present. Ultimately, we hope that consumers would look for the next "catchy" core message on food packages and use it as a tool to improve their total diet.

The agency indicated they did not want to list serving sizes on the new graphic based on consumer research conducted by CNPP that showed detailed messages about the food groups—placement, amounts to eat—were not well understood by consumers when viewing

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the graphic without supplemental materials. GMA believes the new Food Guide Pyramid graphic should provide an infrastructure upon which to systematically base food choices and so we offer another idea. Why not provide the number of servings for the different food groups based on a 2,000 calorie diet? By doing so the agency would synchronize the Food Guide Pyramid with the food label, including the Nutrtion Facts box, which is based on a 2,000 calorie diet. Consumers would then have consistent dietary information across all consumer touch points. If adopted, the number of servings of whole and enriched grains, dairy foods, fruits and vegetables and meats shown in the revised, standardized Pyramid for the System would reflect a 2,000 calorie diet. The new Food Guide Pyramid graphic would not provide a range of servings shown for each food group given that consumers misunderstood the range of servings to mean that an individual consumer could select any number of servings within the overall range. As with the Nutrition Facts panel, a standardized Pyramid on food packages and labeling would not only serve as a reference point and baseline for what constitutes a healthy diet, but would also reinforce the Food Guide Pyramid's basic nutrition messages. Consumers would learn that a Pyramid specific to their own age, gender and physical activity level is available at an interactive web site that would provide serving sizes based on their individual caloric requirements.

GMA supports the inclusion of water and exercise to the graphic. The amount of food one eats and the amount of physical activity one engages in is a dynamic relationship that should be illustrated on the new Food Guidance Pyramid graphic. Eating has to work together with physical activity, whether exercise, play or work..

B. *Usefulness of the proposed strategies to highlight both motivational/awareness and educational messages.*

We applaud the agency for seeking ways to connect with consumers and motivate them to eat more healthily. It is important that the Food Guide Pyramid be used as a component of creative interventions designed to help consumers achieve desired health behaviors.

A. *Motivational/Awareness Components*
   1) *Graphic:* GMA's comments on the graphic are found above in Section A.
   2) *Slogan:* GMA supports the development of a slogan(s) to encourage consumers to make healthy food choices.

B. *Educational Components*
   1) *Daily Food Intake Patterns*
      GMA supports the concept of sub-groups within the vegetable and grains groups. GMA agrees with three servings of whole grains per day. Equally important to communicate to consumers is the role that enriched grains play in the total diet, especially as they provide a valuable micronutrient contribution to the diets of Americans, and would make up the remaining servings of grains. GMA suggests that the CNPP include processed foods in examples of recommended food choices.

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2) *Core Messages and Framework*

The anticipated revision of the Food Guide Pyramid is an unprecedented opportunity to explain how Americans can take simple but effective steps to improve their diets and health. GMA believes we need to apply a marketing approach to promote healthier eating, that is, describe the features of the guidelines (e.g., serving size, number of servings, food groups) and emphasize the benefits (e.g., better health, weight management). And the core messages must recognize and build on the factors consumers apply in choosing foods and a diet – taste, convenience, cost, relevance, and cultural characteristics – in order for the guidance to be actionable.

GMA suggests the CNPP make it easier for consumers to follow the revised nutrition guidelines by prioritizing the changes consumers could make to their diets for maximum health gains. In addition, set achievable dietary goals for healthy Americans that take into account the diversity of American socio-economic and cultural circumstances. It is important that an individual has the opportunity to experience the reward of success relatively early on in the process and build from there with additional changes in dietary behaviors. .

The CNPP has indicated the core messages are intended to result in behavioral changes that will focus on three areas: energy balance, improving food selections that are nutrient dense and lowering chronic disease risk by reducing the consumption of saturated fats, trans fat, cholesterol and sodium. GMA believes core messages need to clearly communicate what individuals and families can do to create healthy diets and lifestyles. The CNPP should seek a tone that encourages behavioral change.

- Energy Balance – "Calories Count" could be a core message. Consumers respond better to a "Calories Count" message than "Count Calories." The former is a subtle but very effective message that encourages and promotes behavior change. The latter puts individuals into a more defensive mode and thus is less likely to be acted on. GMA strongly believes the Food Guide Pyramid needs to take a comprehensive approach to energy intake and energy expenditure, and that it is vital to educate Americans on how to take active roles in moderating their food intake to match their level of physical activity to achieve energy balance. GMA believes it is not enough to simply include guidance on physical activity in the Pyramid. It is necessary to integrate recommendations about energy intake with energy expenditure.

- Nutrient Dense Foods – The proposed Food Guide Pyramid appears to recommend ideal diets for Americans. This will likely be a significant challenge for most consumers, and therefore a challenge to the success of the Food Guide Pyramid. For the Pyramid to be a useful tool for most Americans, it is imperative that the CNPP lay out a roadmap. Consumers want foods that easily fit into their lives, as opposed to having to change their lives to suit an entirely new way of eating. This brings us to the second core message,

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improving food selections that are nutrient dense. Many Americans have made changes in the type of milk they consume. However, consumers did not jump from whole milk to skim milk overnight. As the CNPP strives to encourage Americans to make better selections within food groups, individuals should be encouraged to make small improvements in eating that, over time, add up and move them closer to meeting the recommendations of the new Food Guide Pyramid. Incremental but cumulative changes should be encouraged and applauded.

Another example would be increasing the number of servings of whole grains Americans consume per day. The food industry is committed to providing a supportive environment to help American reach this dietary goal. Whole grain descriptors would be of enormous value for consumers. New product development of foods that are a good source of whole grains (1/2 serving) could serve as an intermediary step to consumption of foods that are an excellent source of whole grains (1 serving). An individual could choose to select six servings of foods that are a good source of whole grains and still meet the dietary goal of three whole grain servings per day. Acceptance of foods that are a good source of whole grains is also likely to be higher as consumers adjust to the potential difference in taste on a more gradual basis than switching directly from enriched grain products to whole grain products. The likelihood for success improves dramatically.

- Chronic Disease Prevention – GMA encourages the CNPP to provide positive messages about choosing foods that combat chronic disease instead of focusing on avoiding certain food groups. For example, foods rich in potassium, calcium, and magnesium are important in reducing blood pressure. The key message for consumers is that foods like fruits and vegetables and low-fat dairy help to reduce blood pressure. Consumers will respond better to positive messages about steps they can take to improve their health, whereas more messages about foods they should avoid are discouraging and less likely to be adopted.

3) *Interactive personalized guidance tools*

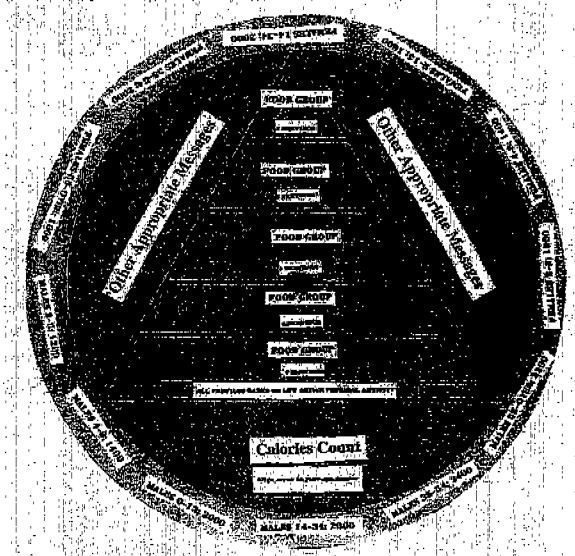
GMA recommends that individualized daily food intake recommendations not only be based on age, sex, height, weight, and physical activity level but also on ethnicity. This would enable culturally-relevant food choices to appear on the screen first, making the Food Guide Pyramid more actionable for the individual.

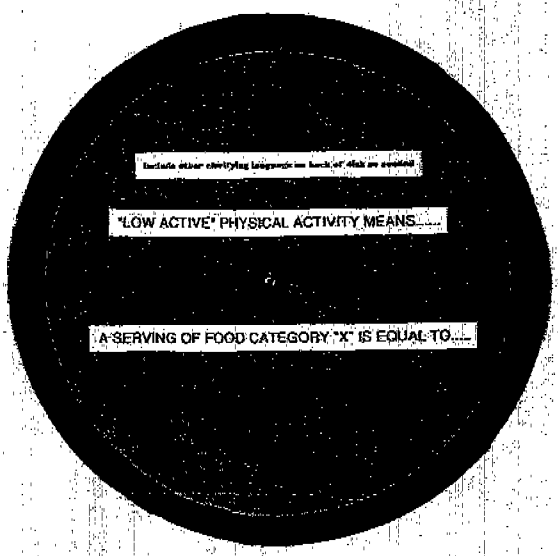
The CNPP indicates that the new interactive tools are not envisioned to replace but rather to work in concert with CNPP's existing Interactive Healthy Eating Index (IHEI) and Interactive Physical Activity Tool (IPAT). GMA has had the opportunity to explore and use the IHEI and the IPAT. Our comments are included under Section E.

4) *Print materials and tools*

While the USDA is looking to create a Web site where a user can enter their own information, GMA feels that it is equally important that the Food Guide Pyramid be communicated to the entire population. This would include individuals that may not have easy access to a computer or other electronic devices. One of our member companies developed a prototype "Pyramid Wheel" that would be easy for USDA to implement as a way to communicate information on the types and amounts of foods to consume. Because the objective is to have the Food Guide Pyramid distributed as widely as possible, a device like this must be easy to use and low cost to produce.

Last year, USDA suggested 16 nutritional profiles (energy requirements in calories) based on age, gender, and level of physical activity. [Table 2 "Energy Levels for Proposed Food Intake Patterns", USDA Technical Report of the Food Guide Pyramid.] We consolidated a few groups where the energy requirements were similar, resulting in 12 profiles that we added to the prototype "Pyramid Wheel". A mock-up of this concept has been included in our submission, and a graphic is included here.





As the graphic is meant to show, the Food Guide Pyramid is superimposed over a round disk. The disk would contain all of the relevant serving information for each of the 12 energy level profiles based on age and gender. The food groups and the number of servings would be visible through windows for the five generic food groups as the Pyramid is rotated to one of the age/gender/energy intake profiles. We chose to keep the information very general at this point until more details on the number and placement of food groups as well as number of servings are known. The prototype submitted covers the low active profile, and separate Pyramid Wheels would need to be developed for sedentary and active physical activity levels.

Other appropriate healthy lifestyle messages could be placed on the wheel outside the actual Pyramid. This might include the new Food Guide Pyramid slogan or one of the core messages (e.g. "Calories Count"). The back of the disk could be used for definitions or to clarify servings and food group information. GMA agrees that using standard household measures is an appropriate approach that would help to make the Food Guidance Pyramid more relevant and potentially improve implementation of food guidance.

C. ***Advantages and disadvantages of the plan to individualize guidance in contrast to "generalized" messages.***

GMA encourages CNPP to extensively test revisions to the Food Guide Pyramid with consumers. Do consumers understand and like the new approach and are they motivated by either the generalized or individualized messages? Are they likely to act on the guidance? Can they use the guidance to plan a set of meals for a day, a week? Does it seem achievable?

D. ***Advantages and disadvantages of the planned focus on core messages in contrast to use of a graphic to represent educational messages.***

GMA supports the approach of simplifying the graphic but does not support the graphic simply becoming a symbol for the System. GMA urges the CNPP to harmonize educational information across all consumer touch points. GMA suggests the graphic provide the number of servings for the different food groups based on a 2,000 calorie diet. By doing so the agency would synchronize the Food Guide Pyramid with the Nutrition Facts Panel which is based on 2,000 calorie diet. GMA urges the CNPP to also synchronize serving sizes found on the Food Guide Pyramid and the Nutrition Facts Panel. GMA urges the Department not to conflict with the NLEA regulations that comply with a statute of law on what constitutes a serving size. Additional suggestions for the new Food Guide Pyramid graphic are discussed in Section A.

GMA supports a focus on core messages that have been thoroughly consumer tested. GMA recommends that the CNPP prioritize the changes it would like to see in the food supply as well as prioritizing changes in dietary habits since neither the food and beverage industry nor consumers can make all of the recommended changes overnight.

Additionally, it will be important for USDA to foster public/private partnerships that will help expand the reach of the Food Guide Pyramid and its accompanying nutrition messages. As the makers of the foods and beverages that consumers buy and use every day, we believe GMA member company products and services can be critical tools that the USDA can use to improve consumer understanding. Below are examples of public/private partnerships that have successfully served as direct conduits to the consumer, informing them about nutrition, physical activity and the need to establish a healthy lifestyle. This is not an exhaustive list of company efforts, the inclusion of the examples is in no way an endorsement of a particular program, company or its products; rather, these are examples offered to assist USDA.

The National Cancer Institute All-Bran campaign launched in 1984 in which a major cereal manufacturer promoted the NCI dietary fiber guidelines was one of the first nutrition PR campaigns involving a non-profit and a for profit company. It included advertisements (TV, newspaper and magazines) and a PR campaign with health professionals. It was highly effective in raising awareness of fiber and resulting in real behavioral change (increased fiber consumption) for many Americans, including families of low socioeconomic level. This is an example of applying marketing approaches to achieve incremental but cumulative changes that have the potential for significant effects on the total population.

GMA recommends the CNPP meet with the 5-A-Day campaign to learn from this effort to increase fruit and vegetable consumption in Americans. The food industry has introduced a multitude of new products including vegetables with different sauces, fruits packed in juices, pull top cups of fruit, and fruit bowls. Creative packaging can make food fun and encourage consumption of fruits and vegetables. Baby carrots are a prime example. They are cut to a two-inch size, making them a very convenient food to nibble on. They also come in single-serving packs with ranch dressing for dipping on the side. Today, Americans are eating a lot more carrots each year than their parents did.

A major baby food manufacturer took the 5-A-Day health recommendation and developed an actionable and meaningful message for parents. The campaign "Five servings equals two and a half jars of fruits and/or vegetables" was targeted for toddlers 12-24 months of age. The message was simple and educated parents how to start a healthy habit early in a young child's life.

A GMA member company places on its 64 ounce cartons of orange juice Mayo Clinic Healthy Living Tips. Mayo's research indicates that consumers welcome having nutrition information on a product package, if it comes from a trusted, recognized source. The side panel of the 64-fluid ounce cartons of orange juice includes information on a range of topics such as heart health, digestion, immunity, stress management and bone health.

America on the Move not only promotes exercise but incremental reduction in caloric intake (100 calories less) as part of their program. GMA encourages CNPP to learn from this program and identify the key motivating factors in bringing about change in both physical activity behavior and dietary intake behavior.

America on the Move and a GMA member company are launching *Balance First* an educational program that teaches children how to balance calories consumed with calories used. The program will be distributed to 2.5 million school children this fall. *America on the Move* developed the content and the company provided the creative for the materials and the program. It is just one example of a public/private partnership that will help advance public health.

A GMA member company and the National Association for Sport and Physical Education developed the Step With It! program. The program was launched in 2001 and will expand to 1000 middle schools with one million students participating in 2004. The program provides participants with a "Stepometer," a small pedometer, to track the number of steps taken in a

typical day. The "Step With It!" program encourages participants to take a minimum of 10,000 steps a day to maintain good health through a more active lifestyle. The idea is to make physical activity fun even for those who aren't involved in athletics.

GMA and its member companies stand willing to be an effective partner with the Department by amplifying core messages developed by the CNPP and motivating consumers to make healthy food choices.

E. ***Key components for effective interactive educational tools.***

USDA: Interactive Healthy Eating Index

GMA has had the opportunity to explore and use the IHEI and the IPAT.

- The site provides an extensive searchable food index.
- There is a wide selection of serving sizes for selected food items.
- A side-by-side comparison of suggested nutritional intake and the individual's intake is provided, enabling the user to see what areas of his/her diet can be improved.

- The tool does not provide nutritional information on individual foods items consumed. Therefore, when analyzing the diet the individual cannot determine the level of fat, sodium, calories, etc. in the food. It would be beneficial to be able to view the nutritional composition of individual food items.
- It would also be helpful for food selections to be broken down by meal in order to determine the amount of calories consumed at each meal throughout the day.
- A calendar format would allow one to easily compare his/her intake over time.
- There is no link to the amount of food eaten and the relationship to a serving size on the Food Guide Pyramid. An individual chooses an item such as a banana and then the individual is given options for serving size such as the size of the banana, if the banana is chopped or mashed, etc. However, the tool does not provide information on how many servings of fruit have been consumed by eating the banana.
- An interactive tool or a chart that references commonly consumed items from each of the food groups and provides their serving size information would be beneficial because many consumers are unclear as to what a serving is.
- Integrating the physical activity tool and the nutrition tool would enable the individual to determine his/her energy balance and is a critical step in consumer understanding of energy balance. If used in conjunction with a calendar, the individual could quickly compare his/her energy balance and track improvements.

USDA: Physical Activity

- Physical activity must include all activities performed in the last 24 hours. In theory, one is able to record their activity for every minute of the day, including time using the bathroom, brushing teeth, walking to and from the car, walking around the office, etc.
- Once one stores the frequently performed activities the tool is easier to use. However, it is almost impossible to account for every minute of the day.

- It is a very lengthy process to complete. It took a staff member approximately 45 minutes to enter all her activities performed during the day, and she was still unable to accurately account for all the minutes in the day.
- It would be more beneficial for the individual to be able to determine how many calories are burned during a specific exercise than for him/her to have to determine the exact number of calories burned throughout the day.
- Also, instead of having to record every minute of the day, the tool could prompt the individual to determine their lifestyle (i.e., sedentary, low active, or active). Based on this information, determine the amount of calories the individual would normally burn.
- It would also be helpful if each day the site had suggested activities and stated the amount of calories burned while performing the activities.

In conjunction with the American School Food Service Association, a GMA member company has developed *Habitracker*, a web-based interactive dietary intake and physical activity program for school foodservice directors. This program illustrates, we believe, how CNPP could strengthen their existing interactive tools. Features of the different components of the *Habitracker* program are listed below, and a food log entry is provided in Appendix A. *Habitracker* can be viewed at www.asfsa.org.

Habitracker – Food and Exercise Logging System

Food tool:

- Can search specific restaurant menus as well as brand names so an individual can obtain an accurate calorie count.
- Provides breakout of nutritional content for individual food items.
- Allows an individual to categorize food by meal: Breakfast, lunch, dinner or snack. Provides a caloric subtotal for each meal.
- Generates a side-by-side comparison of your caloric intake and the recommended caloric intake.
- Enables an individual to compare current caloric intake with past caloric intakes.
- Quick and provides an array of information.

- Does not use food guide pyramid.
- Does not provide a breakdown of servings consumed from the different food groups.
- Not as many options on serving size as USDA Web site.
- Does not have as many overall food selections as USDA Web site such as ethnic foods.

Exercise tool:

- Exercises are broken down into aerobic, strength and workout regimens.
- States calories burned for individual activities as well as total calories for all exercise done in a single day.
- Individual does not have to account for every minute of the day. After selecting a lifestyle and entering exercise information for the day, the tool calculates an individual's energy balance for the day.
- Site can keep track of weight if used daily.
- Easy to navigate and is not time consuming.

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Virtual Trainer:

- Breaks down muscle groups and suggests specific exercises to strengthen them.
- Visual aide demonstrating suggested exercise.

Wellness Assessment:

- An individual answers a series of questions about his/her health status, family health history and personal health habits. The individual receives an assessment on living habits and personal wellness.
- Provides the individual with a wellness score, analysis on current priorities to improve overall wellness and a breakdown of risk factors that increase the chances for developing chronic diseases.
- The Virtual Health Coach tool provides an individual with support and information on actions you can take to improve your overall wellness.
- Entire assessment takes about 15 minutes to complete.
- Easy to use and helpful.

GMA member companies support the International Food Information Council (IFIC) Foundation's Web site www.kidnetic.com, an interactive Web site that teaches kids and their families how to live healthier lives through proper diet and regular physical activity. GMA encourages the CNPP to meet with the IFIC Foundation to hear what they have learned along the way in developing a very successful Web site for "tweens" and their families as well as a resource for health professionals and teachers.

A GMA member company launched a very successful interactive Web site that allowed an individual to enter what they ate for breakfast and build a Breakfast Pyramid. Feedback from consumers was positive in assisting them to improve food choices.

Many of the GMA member companies have Web sites that provide excellent nutrition information. A GMA member company recently launched a Web site that provides 100 healthy living tips, 100 ways to burn 100 calories, and a personal journal to track eating, snacking and exercise patterns. Healthy living tips are also found on the *100 Calorie Packs*, a new line of snack products individually wrapped to provide 100 calories.

F. *Channels of delivery for the Food Guidance System*

The Internet is a key channel for delivering Food Guide Pyramid elements. For those consumers who do not have access to a computer GMA has outlined in Section E an alternative means for reaching them.

Once a Web site has been established for the new Food Guide Pyramid, Americans need to be made aware of the Web site through advertising and/or public relations. The Web site needs to be fun, updated on a regular basis (at least monthly), give individuals a reason to come back to the Web site and be relevant to their personal needs, especially as there are so many Web sites and distractions on the Internet.

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Health professionals are a key vehicle for reaching consumers with nutrition messages since they tend to be well-informed on health topics and can reach consumers at critical health trigger moments. To assist health professionals in educating consumers, a GMA member company has a frequently updated health professional website with a variety of free resources (www.bellinstitute.com). Many of the topics, such as heart health, weight management, and whole grains, include key messages from the current Food Guide Pyramid. Health professionals consistently rate the materials as very helpful and often highlight the success of the materials with diverse population groups.

A GMA member company has a Web site (www.campbellwellness.com) devoted to helping consumers translate guidelines into solutions (e.g. dietary plans, menus and wellness-lifestyle techniques). In addition, a Web site (www.labelsforeducation.com) is available for nutrition and wellness resources.

A GMA member company has a Nutrition Camp Web site (www.kelloggs.com/nutrition/nutritioncamp/) that has been successful for over six years. The Nutrition Camp Web site provides a basic nutrition lesson that is entertaining. Teachers speak highly of the Web site and Tuft's Nutrition Navigator links to it.

A GMA's member company has a Web site (www.specialk.com/brand/sk_kay/overview.shtml) that has a chat room and encourages consumers to talk to one another about their experience. This company also promotes the Web site and provides nutrition tips on its product packaging. This online chat format may be something the new Food Guide Pyramid could add as a feature to its Web site. Consumers will certainly need help and encouragement not only from the government, but also from others who are trying to adopt a plan of small changes shown to be effective in achieving sustainable behavioral change. Through an online chat room, families and individuals could share with others their personal experiences and tips in how they adopted the new dietary patterns.

In conclusion, GMA believes that healthy dietary patterns must be presented in a way that individuals can easily and effectively make the right choices, for themselves or as family gatekeepers. If not, even the best guidance, even in the prettiest presentation, will be quickly forgotten.

Sincerely,

Alison Kretser

Alison Kretser, MS, RD
Director, Scientific & Nutrition Policy
Grocery Manufacturers of America

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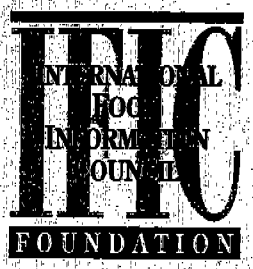

August 27, 2004

Food Guide Pyramid Reassessment Team
USDA Center for Nutrition Policy and Promotion
3101 Park Center Drive
Room 1034
Alexandria, VA 22302

Re: Federal Register Notice Volume 69, Number 133 Notice of Proposal for Food Guide Graphic Presentation and Consumer Education Materials

Dear Food Guide Pyramid Reassessment Team:

The International Food Information Council (IFIC) Foundation applauds the open process taken in this revision of the food guidance system and is pleased to have the opportunity to comment. IFIC Foundation's mission is to effectively communicate science-based information on health, nutrition and food safety for the public good. IFIC Foundation is supported primarily by the broad-based food, beverage and agricultural industries. We conduct an extensive amount of consumer research to better understand the public's knowledge and attitudes on nutrition and food safety so that our communications meet the needs of our target audiences. It is through this wealth of research that we are able to provide the following consumer insights.

Both quantitative research conducted by the American Dietetic Association and qualitative research conducted by IFIC Foundation consistently show that consumers are barraged by what they perceive as confusing, conflicting, and changing nutrition advice. Subsequently, consumers feel frustrated making them more likely to disregard the information they receive. The mixed messages come from a variety of sources, but certainly escalating media coverage in the area of nutrition has significantly increased consumer exposure to nutrition information. Consumers do not feel comfortable, nor do they possess the tools to determine with certainty the credibility of the source or choose between contradictory nutrition messages.

Revising the current food guidance system to reflect today's environment provides an important opportunity to reach the consumer with unified and consistent messages that they can act upon in their everyday lives to improve their health and well-being. However, we cannot presume that nutrition messages translated into lay language will be useful to the consumer. It is of the utmost importance that any food guidance system and campaign be thoroughly tested with the target consumer audience(s) to ensure that it meets their needs and motivates behavior change.

Washington, DC | Tel: | Fax: | Email: | http://ific.org

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We at IFIC Foundation believe that the 6 areas of interest being explored by USDA will be effective in soliciting the expertise necessary to effectively communicate the most updated nutrition science to consumers.

1. **Configuration of the new graphic**—Consumer data from an IPSOS Public Affairs survey shows that the Food Guide Pyramid has approximately 88% recognition among American consumers (1) and, in general, consumers understand the overarching messages it is trying to convey, such as variety and balance. To further demonstrate its widespread recognition, the Food Guide Pyramid is mentioned and discussed, without probing, by subjects in virtually every nutrition focus group that IFIC Foundation conducts, regardless of the topic. It has also been widely covered in the media, a message delivery vehicle by which consumers say that they get a great proportion of their diet and nutrition information. Much of the media coverage on the current Food Guide Pyramid has been negative, representing criticism for its failure to curb the obesity epidemic and often promotes "alternative" pyramids created by entities who feel that the Pyramid is inadequate to promote healthy eating to the nation. However, the point should be made that while the vast majority of the population recognizes the Pyramid, most Americans are not currently following its advice properly. In fact, less than 1 percent of the US population actually follows the Pyramid (2). It is our feeling that the high recognition of the Pyramid is an enormous accomplishment and an excellent framework to build upon as we modernize and extend our nutrition guidance. The next imperative step is enhanced communication of its messages in specific and individualized ways in order to illustrate to consumers *how* to apply Pyramid concepts to their lifestyle and eating patterns, rather just recognize it.

2. **Strategies to improve awareness and motivation for using the information**—Consumer research is essential to improving awareness and motivation for using dietary guidance information in that it allows us to communicate in more targeted, specific, and meaningful ways to ensure that messages hit, rather than miss, the consumer mark. We know from research that consumers already feel deluged by the amount of information they receive in regard to nutrition. We also know that when asked, consumers respond that they know all they need to know about health and nutrition. In other words, the issue is not a lack of knowledge per se, but rather a gap between perceived knowledge and behavior. One reason for this is that, although consumers perceive that they have the information, what they claim to know is not always accurate. Therefore, it is important to use consumer research to determine the best messages to present, in a positive and productive way to motivate behavior change, rather than merely providing the consumer with more information. Previous consumer research has already given us some guidelines that consumers consider "mandates" for creating messages and tips that resonate with them. These are: be positive, make them short and simple, provide the payoff, be individualized, make them specific and manageable, and make them fun.

3. **Methods to assist consumers in personalizing the system**—Personalizing the food guidance system for the consumer is key. We know that each individual has unique food preferences and needs. Consumer research has told us that we need to respect these preferences when it comes to recommending food intake. Therefore, it is necessary to provide them with highly personalized nutrition information that fits into their lives. Additional consumer research, conducted in collaboration with USDA and the Food Marketing Institute, to develop a Food Guide Pyramid brochure indicated that Pyramid messages are more useful when they are tailored to meet consumers' specific needs. That is, rather than bring consumers to the Pyramid, it is important to bring the Pyramid to them and demonstrate how it can fit into their existing lifestyle. The result? Study participants found it more understandable when Pyramid servings for the various food groups were illustrated in the "real life" context of foods they eat, such as, "*A deli bagel is equivalent to about 4+ servings from the Bread, Cereal, Rice, & Pasta Group.*" (3) Consumers also responded positively to messages that they can accommodate within their lifestyle. For example, if an individual is fond of full-fat milk, but is willing to make other trade-offs, statements like, "*Love the taste of whole milk? Balance it out with lower-fat foods such as reduced-fat cheese, low-fat sour cream, or fat-free dressing*" are received well (4).

   It will be important to reach the consumers on a variety of levels to ensure proper access to the information and an understanding of how their own individual needs can be met by the food guidance system. Partnerships can be instrumental in both program development and dissemination. In addition, due to its dynamic nature, the Internet may be used to personalize the food guidance system to meet each consumer's individual needs. It bears repeating, however, that any method(s) to personalize the food guidance system should be consumer tested.

4. **Strategies to improve educational messages**—In general, appropriate and effective educational messages should follow the consumer "mandates" listed previously and consumer-testing messages can increase success. Message content must be carefully considered. For instance, in the environment of obesity, it is tempting to focus consumer messages on weight control, calorie control, portion size, energy balance, etc. While health professionals think about and understand these concepts, it is difficult for consumers to understand and embrace them. IFIC Foundation consumer research indicates that while consumers are thinking more about portion size and calories, they are not necessarily changing behavior. Further, calorie information can easily be misunderstood, as it is difficult for the average consumer to determine how many calories they *should* have and how many calories are in the foods they eat. Consumers can feel that calorie information does not apply to them if they are not concerned about weight loss or feel that weight loss is not currently feasible within their lifestyle.

   Additional consumer research needs to be conducted to determine the best way to communicate and deliver messages on weight control, calorie control, portion size, and energy balance. Initiatives to conduct such research are already

underway. For example, later this year the Dietary Guidelines Alliance, a longstanding public/private partnership whose mission is to provide positive, simple, and consistent messages to help consumers achieve healthy, active lifestyles consistent with the Dietary Guidelines for Americans, will be conducting research on communicating energy balance to the consumer.

It is important that messages developed be simple, captivating, and comprehensive enough to drive the consumer to personalize the advice to their lives. A project of the Dietary Guidelines Alliance called *It's All About You* can be used as a case study. *It's All About You* is a campaign that has been extremely successful in disseminating five core messages on healthy eating and active lifestyles, as well as supporting "how-tos" that resonate with consumers. These messages are:

- Be Realistic: Make small changes over time in what you eat and the level of activity you do. After all, small steps work better than giant leaps.
- Be Adventurous: Expand your tastes to enjoy a variety of foods.
- Be Flexible: Go ahead and balance what you eat and the physical activity you do over several days. No need to worry about just one meal or one day.
- Be Sensible: Enjoy all foods, just don't overdo it.
- Be Active: Walk the dog, don't just watch the dog walk.

Why have these messages stood the test of time? The *It's All About You* campaign was developed through extensive consumer and health professional research and boasts significant grassroots utilization by health professionals of its messages and materials. Consumers like the messages because they are encouraging and attainable. They feel empowered by the notion of "small steps" as a measure of success and need to feel that it is ok for food and physical activity to be fun. These messages also put the consumer in charge and counteract the guilt that they tend to feel regarding eating by introducing the concept of balance over time and stressing the importance of moderation. Another key to the success of *It's All About You* is its plethora of supporting tips with which consumers can choose specific, individualized ways to eat healthier and be more physically active within their lifestyle.

5. **Interactive tools to demonstrate the messages**— Consumers obtain nutrition information from a variety of sources. Quantitative data from the American Dietetic Association shows that consumers get the majority of their diet and health information from television, magazines, and newspapers. Other sources of information cited by consumers are the Internet, word of mouth, government, and the food industry. Consumers say, however, that they value the information they receive from health professionals the most. Yet, as discussed above, consumers feel that they receive too much information on diet and nutrition and do not know who to believe. The public would certainly benefit from clear, specific, and practical tips on *how* to eat more healthfully and be more physically active. To that end, it is essential to form partnerships among those entities which provide

nutrition information to consumers to increase the amount of consistent, relevant, and actionable messages that are conveyed and internalized by the consumer. Interactive tools to demonstrate the messages should be developed with consumer input and tested with consumer research to assure effectiveness.

6. **Communications delivery channels for the messages**—Maximizing public adoption of new food guidance may appear daunting. Therefore, we advise using partnerships to reach the widest possible audience with the clearest possible messages. This can be done by forming partnerships with groups such as health professional organizations, food industry, academia, and even the media. Given the success of the Food Guide Pyramid brochure mentioned above and consumer research expertise, IFIC Foundation hopes to continue partnership opportunities with USDA. In addition, the Dietary Guidelines Alliance, with its existing and effective program based on communicating the Dietary Guidelines for Americans, would be an excellent partner. Because this food guidance system revision process is open to public comment, it is hoped that long-term, effective partnerships can be formed and that an increased sense of ownership can be felt by an increased number of stakeholders having input into the revision.

To conclude, IFIC sees the following as vital considerations in revising the food guidance system.

- It is important that the food guidance revision be guided *by* consumers rather than merely developed *for* consumers. Consumer research on potential graphics, personalizing the food guidance system, improving educational messages, interactive tools, and message communication is vital and should be considered an integral step in developing and disseminating the new food guidance system.
- Personalizing dietary advice is very important in motivation and utilization. Consumers are more likely to adopt messages that they can identify with, thus increasing public health and wellness.
- Partnerships can maximize dissemination opportunities and increase the clarity and consistency of messages that consumers receive. They can be instrumental in increasing consumer awareness and motivation to use the food guidance system in their lives.

IFIC Foundation staff is available and may be contacted for additional information regarding consumer perception of messages and/or communications issues associated with developing and disseminating the new food guidance system. We are also pleased to explore new partnership opportunities to communicate food guidance messages that consumers will recognize, understand, and use.

Thank you for your time.

Best regards,

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Susan Borra, RD
Executive Vice President

Shelley Goldberg, MPH, RD
Associate Director

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August 27, 2004

Food Guide Pyramid Reassessment Team
USDA Center for Nutrition Policy and Promotion
3101 Park Center Drive
Room 1034
Alexandria, VA 22302

FR Doc. 04-15710
Notice of Proposal for Food Guide Graphic Presentation and Consumer Education Materials; Opportunity for Public Comment.

Dear Food Guide Pyramid Reassessment Team:

The Dietary Guidelines Alliance (the Alliance) commends the U.S. Department of Agriculture's (USDA) efforts to evaluate and update the Food Guidance System and appreciates this opportunity to provide comments on the Food Guide Graphic Presentation and Consumer Education Materials.

We encourage USDA to strengthen its existing partnership with the Dietary Guidelines Alliance – a long-standing, successful partnership between health organizations, the food industry, the Department of Health and Human Services and USDA. Strategic public-private partnerships are vital in extending the reach and impact of dietary guidance and providing clear messages to a broader audience.

COMMUNICATING TO THE PUBLIC WITH CONSUMER-TESTED, POSITIVE MESSAGES

The Alliance is dedicated to providing consumers with concrete, practical advice on how to apply the *Dietary Guidelines for Americans* to their lives. As part of our efforts to do this, in 1996, we launched the *It's All About You* campaign, a nutrition message platform that consumers could understand and use to positively affect their health. While constructing this educational program, we conducted extensive qualitative research with consumers to uncover what they believe about food, nutrition and physical activity; what they value in life; what motivates them to change; and what they perceive as barriers to change. We found that:

- Consumers are tired of negative nutrition messages; they want to hear what to do, rather than what *not* to do.
- Many believe they must give up the tasty foods they enjoy to follow a healthful diet. Therefore, they're less willing to change their eating patterns.
- When eating certain foods, they understand and practice food "trade-offs" and moderation, but feel guilty because they're not sure they're doing it right.
- Consumers say they're confused about conflicting nutrition headlines and reports, and say that this causes them to question its credibility.
- Good health means eating well and getting enough exercise.
- Consumers believe good health is important because it makes them more confident, energetic and productive, which leads to happiness and satisfaction with their lives.

- People don't understand that there are no "good" and "bad" foods, but "good" and "bad" diets.
- Major obstacles to eating better and being more active include lack of time, energy, and "will power;" force of habit; indifference; and perceptions that practicing these healthier habits is difficult and expensive.

Advantages and disadvantages of retaining current shape for graphic and other potential shapes to use as a representative of the overall Food Guidance System.

According to a 2004 survey, 88 percent of consumers have heard of the Food Guide Pyramid, yet only 17 percent *try* to adhere to the recommendations (1) and less than one percent has intake patterns that actually reflect pyramid recommendations (2, 3). The CNPP should build upon the equity and consumer awareness the pyramid has developed over the past 12 years by **keeping the Food Guidance icon in the shape of a pyramid, but updating the corresponding advice to reflect the most recent nutrition science and consumer research.** Resources should be devoted to building stronger corresponding educational tools that can help bridge the gap between consumer awareness and behavioral change.

We commend the CNPP for focusing on energy balance because food and dietary guidance cannot focus on eating alone. Guidance to follow a healthy lifestyle must include recommendations for healthful eating as well as regular physical activity. The Alliance is in the process of conducting consumer research on energy balance. The purpose of this research is to help us better understand how consumers perceive and try to achieve energy balance as part of their lifestyles, use physical activity and eating as a way to achieve health, and explore ways to communicate the concept of energy balance in a motivating way. We look forward to working collaboratively with CNPP on this project.

Usefulness of the proposed strategies to highlight both motivational and educational messages.

In our research, consumers told us they are tired of negative nutrition messages; *they want to hear what to do, rather than what not to do.* In addition, research tells us they are overwhelmed and confused by the amount of information they receive in regard to nutrition (4, 5). Thus, **it is important to use extensive consumer research to involve consumers and to determine the best messages to motivate behavior change**. Research has determined **that consumers respond well to information based on the following guidelines** (4):

- Provide positive recommendations
- Make messages short and simple
- Provide the benefit in consumer terms
- Deliver guidance that can be individualized by health professionals and/or consumers
- Make messages specific, manageable and actionable
- Make nutrition education fun

In addition, consumer testing can greatly increase success. Message content must be carefully considered. While the healthcare community knows that "calories count" when addressing weight management, it is difficult for consumers to understand and embrace this concept. Consumer research indicates that while consumers are thinking more about portion size and calories, they are not necessarily changing behavior. Further, messages on calories tend to be disregarded by those consumers who either feel they don't have time to worry about their weight

or are not interested in weight loss, and therefore, these are not suitable messages for the public as a whole.

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In 1996, we created the *It's All About You* campaign, which included a logo (above), slogan (*It's All About You*), five core messages (below) and numerous tips. Based on consumer research, the Alliance learned this tiered approach to nutrition education was most effective at motivating action. The logo generated awareness and brand recognition for the messages; the consumer-tested slogan engaged consumers to then adopt the motivating and simple messages. We believe an updated approach to the Food Guide could mirror this approach, using the graphic as the icon that draws consumers in and serves as an educational moment, with a slogan and messages that provide deeper motivation and education.

The *It's All About You* campaign has successfully delivered five core messages regarding healthy eating and active lifestyles along with simple, yet captivating tips that resonate with consumers and allow them to modify the information to meet their individual needs. In addition, this type of messaging helps consumers see that a healthy lifestyle is attainable, realistic and appealing. The *It's All About You* messages and corresponding tips are:

- **Be Realistic**: Make small changes over time in what you eat and the level of activity you do. After all, small steps work better than giant leaps.
  - Park your car in the farthest spot. You'll walk more and burn extra calories.
  - For lower-fat chili or tacos, put cooked ground beef in a strainer and rinse briefly with hot water. Drain well and continue with your recipe.
  - To save calories and fat, use a cooking spray instead of oil to sauté foods.
  - For a refreshing treat and a calcium boost, snack on fruit-flavored fat-free yogurt.

- **Be Adventurous**: Expand your tastes to enjoy a variety of foods.
  - Try a fruit or vegetable you haven't had before. Make it a monthly goal.
  - Enjoy a meal at a Thai, Indian or Japanese restaurant.
  - Prepare one new recipe each month from a favorite magazine or newspaper article.
  - Dig into a different grain: couscous, bulgar, or quinoa, for instance.

- **Be Flexible**: Go ahead and balance what you eat and the physical activity you do over several days. No need to worry about just one meal or one day.
  - Eat a lighter breakfast and lunch to plan for "pizza with the works" for dinner.
  - Don't pack on extra pounds on your vacation. Work in plenty of walking, biking, hiking or volleyball to balance out special vacation meals.

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- Did you splurge on a "soup to nuts" special occasion meal? No problem. Eat lighter and move more for a few days afterwards.
- If you don't want to give up whole milk, balance it out with lower-fat food choices you like.

- **Be Sensible**: Enjoy all foods, just don't overdo it.
  - Slow down! It takes 20 minutes for your brain to send the signal that you've had enough to eat.
  - Have one helping and enjoy every bite.
  - Make your ice cream cone a single, not a double dip.
  - Add calcium to your daily diet the food label way — 20% DV is an excellent source.

- **Be Active**: Walk the dog, don't just watch the dog walk.
  - Set your goal at 30 minutes of moderate activity most days. In 10-minute increments, it's easy.
  - Take a brisk 10-minute walk on your lunch break. You'll feel good and have more energy, too!
  - Hop off the bus a few blocks early and walk briskly the rest of the way.
  - Keep active around the house: sweep the garage, scrub the floors, vacuum the rugs or trim the shrubs. It all helps you get fit—and the house will look great, too!

Advantages and disadvantages of the plan to individualize guidance in contrast to "generalized" messages.

Based on our work with consumers, the Alliance believes guidance must be general enough to be available, accessible and meaningful to a wide population. However, we know that consumers have very individual and distinct perceptions when it comes to following a healthful eating pattern. Therefore, **it is necessary also to provide opportunities for individualized approaches and/or messages that will allow them to personalize nutrition information from the Food Guidance System.**

Consumer research conducted in 2001 by the International Food Information Council Foundation provided direction as to how to individualize nutrition messages and make them more meaningful and useful to the consumer. The research indicated that **Pyramid messages resonate with consumers better when they are tailored to the specific needs and preferences of the individual.** For example, consumers found it more understandable when Pyramid servings for the various food groups were illustrated in the context of foods they eat. For instance, "*Restaurant portions of pasta have 3+ servings from the Bread, Cereal, Rice, & Pasta Group.*" (6) Consumers tell us that personalization allows them to incorporate nutrition messages into their lives. A tip such as, "Grab a banana, a wheat bagel, or a carton of yogurt to eat at your desk" is great for someone who isn't hungry for breakfast before they leave for work.

Advantages and disadvantages of the planned focus on core messages in contrast to use of a graphic to represent educational messages.

Core messages of the Food Guidance System should be consistent with the guidance and framework of the Dietary Guidelines for Americans, but **these messages should not eliminate the need for an icon that communicates the core guidelines. The icon is an easily recognizable representation of the Food Guidance System and may be the only interface for much of the population.**

The Alliance has tested consumer messages that fit well with CNPP's three message categories: energy balance, nutrient density and chronic disease prevention. We encourage the CNPP to consider these key points when developing a message framework intended to generate behavioral change in consumers. While these are key points, specific tips, such as stated earlier, can easily reinforce and motivate consumers to put these key points into action.

- Energy balance:
  - **Help consumers balance caloric intake with energy expenditure by including a physical activity component to the Food Guidance System.**
    - Be flexible: Balance what you eat and the physical activity you do over several days.
    - Be active: Walk the dog, don't just watch the dog.
- Nutrient density:
  - **Guide consumers to identify and choose foods that are nutrient dense, such as colorful fruits and vegetables, non- and low-fat dairy, whole grains and lean meat.**
    - Be sensible: Enjoy all foods, just don't overdo it.
- Chronic disease prevention:
  - **Provide positive messages to choosing foods that combat chronic diseases instead of focusing on avoiding certain food groups.**
    - Be adventurous: Expand your tastes to enjoy a variety of foods.
    - Be realistic: Make small changes over time in what you eat and the level of activity you do.

Key components for effective interactive educational tools.

According to the IOM Health Literacy report released in April 2004, nearly half of all Americans have difficulty understanding health information and putting that information into practice (7). Updates to the Food Guidance System present an opportunity to communicate dietary guidelines in a way that people can understand and put into action. Research tells us that **effective dietary guidance is driven by what consumers know, believe, value, and do relating to food, diet, and nutrition.** Therefore, like other communications tools, **the graphic, messages and educational materials that are developed for the new Food Guidance System should be based on sound science and comprehensive consumer research.**

Consumers are faced with new nutrition advice and research every day, so they need clear, consistent messages to ensure guidance is meaningful and motivating. **To that end,**

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partnerships, such as the Dietary Guidelines Alliance, are critical to disseminating messages in a powerful and consistent way to make the information even more powerful and relevant for people.

Channels of delivery for the Food Guidance System.

A comprehensive communications campaign surrounding the new Food Guidance System should be developed and incorporate partnerships with industry, health organizations, extension specialists, and leaders in the nutrition and education communities -- as well as utilization of already established and successful grassroots programs, such as *It's All About You* -- to achieve maximum visibility and repetition of key messages. This communications program could deliver dietary guidance through a variety of channels that can reach a wide audience, including at-risk populations, through schools, doctors' offices, hospitals, and community organizations.

In addition, health professionals are vital to ensuring that consumers understand the Food Guidance System and can put the guidelines into practice. The CNPP should develop materials that health professionals and educators can use to relay the tenets of the Food Guidance System.

In closing, consumer testing and strategic partnerships are essential to ensure that the new Food Guidance System reaches consumers with positive, actionable and motivating advice to help improve the health of all Americans. Again, we encourage USDA to strengthen its existing partnership with the Dietary Guidelines Alliance to extend the reach and impact of dietary guidance and provide clear messages to a broader audience.

Thank you for your consideration,

The Dietary Guidelines Alliance

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DIETARY GUIDELINES ALLIANCE

The American Dietetic Association

Chicago, IL

www.eatright.org

Grocery Manufacturers of America, Inc.

Washington, DC

www.gmabrands.com/

National Cattlemen's Beef Association

Centennial, CO

www.beefnutrition.org

National Pork Producers Council

Des Moines, IA

www.nppc.org

Produce Marketing Association

Newark, DE

www.pma.com

Wheat Foods Council

Parker, CO

www.wheatfoods.org

Food Marketing Institute

Washington, DC

www.fmi.org

International Food Information Council

Washington, DC

http://.ific.org

National Dairy Council

Rosemont, IL

www.nationaldairycouncil.org

National Food Processors Association

Washington, DC

www.nfpa-food.org

The Sugar Association, Inc.

Washington, DC

www.sugar.org

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3. National Health and Nutrition Examination Survey (NHANES), 1999-2000. http://www.cdc.gov/nchs/nhanes.htm
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5. American Dietetic Association. Nutrition & You Trends 2002. http://www.eatright.org/Public/Media/PublicMedia_10240.cfm
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ALLIANCE
For Food & Farming

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Watsonville, CA
Fax:

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August 26, 2004

Food Guide Reassessment Team
USDA Center for Nutrition Policy and Promotion
3101 Park Center Drive, Room 1034
Alexandria, VA 22302

Comments in Response to Federal Register Doc. 04-15710, Vol.69, No. 133

The Alliance for Food and Farming writes this letter in support of a recommendation for the revised Food Guide Pyramid Graphic urging consumers to eat at least 5 to 13 servings of fruits and vegetables per day. Further, we support increased prominence for fruits and vegetables in the revised graphic by placing this important food group at the bottom of the pyramid.

The Alliance for Food and Farming is an organization comprised of approximately 60 different agricultural groups. We work to educate the public and media about issues concerning food safety and farming.

Like many public education organizations, the Alliance for Food and Farming is concerned about the growing health issues associated with improper nutrition in the United States. It is clear that Americans are not consuming enough fruits and vegetables. Educating the public about proper nutrition and the need for increased consumption of fruits and vegetables is crucial in solving many of our nation's health problems. Whenever possible our organization works to combat misinformation about the safety of the U.S. food supply and to encourage increased consumption of wholesome, fresh produce.

We hope that by revising the Food Guide Pyramid to reflect the importance of consuming fruits and vegetables, more Americans will make better nutritional choices and that they will recognize the overwhelming evidence about the health benefits associated with eating fresh produce.

We appreciate your consideration of this letter.

Sincerely,

Marilyn Dolan
Executive Director

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Charter Members
U.S. Rice Producers' Group
Rice Millers' Association
USA Rice Council

Advocate for the Rice Industry

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August 26 2004

Eric J. Hentges, Ph.D.
Executive Director
Food Guide Pyramid Reassessment Team
USDA Center for Nutrition Policy and Promotion
3101 Park Center Drive, Room 1034
Alexandria VA 22302

RE: **Federal Register Notice, Volume 69, No. 133, July 13, 2004**
Center for Nutrition Policy and Promotion, Notice of Proposal for Food Guide Graphic Presentation and Consumer Education Materials

Dear Dr. Hentges:

Thank you for the opportunity to comment on the Food Guide Pyramid graphic and consumer education materials.

USA Rice Federation is a national trade association representing rice producers, millers, and related industry organizations and companies. We conduct nutrition education programs dedicated to educating consumers about the importance of rice in healthy eating, and how rice fits in a variety of nutrition and dietary goals.

As you state, most Americans are familiar with the Food Guide Pyramid, but few follow its recommendations. The rice industry commends CNPP for undertaking a broader Food Guidance System that will use a graphic image as a symbol to represent the overall system, but give greater emphasis to showing consumers how to utilize the specific nutritional guidance information. We are providing the following comments in an effort to help CNPP achieve this important goal.

I. Advantages/disadvantages of retaining current shape for graphic and other potential shapes to use as a representative of the overall Food Guidance System.

A. Keep the Current Shape

Because the current Food Guide Pyramid accurately depicts the recommended food guidance, and because of its extraordinarily high level of consumer recognition and acceptance, CNPP should build upon the brand equity of the current pyramid rather than change it.

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- The rice industry commends USDA and CNPP for using sound science as the basis for the visual graphic for dietary guidance. The choice of a pyramid shape accurately depicts the intake patterns and messages of variety, proportion and moderation recommended by the Dietary Guidelines and other expert panels including National Academy of Science Institute of Medicine.

- According to USDA's own figures, 80% of Americans recognize the graphic. A 2002 Gallup poll conducted by the Wheat Foods Council showed that 82% of those surveyed agreed that the Food Guide Pyramid is the foundation of a sensible, healthful eating plan. This level of recognition and acceptance is enviably high, and should not be taken for granted or abandoned as USDA works towards the goal of motivating behavior change.

B. Grains Should Form the Base of the Graphic to Convey the Correct Proportion Message

Dietary Guidelines for Americans states: *"Foods made from grains help form the foundation of a nutritious diet. They provide vitamins, minerals, carbohydrates, and other substances that are important for good health. Grain products are low in fat, unless fat is added in processing, in preparation, or at the table."*

To convey the correct proportion message of the food guidance recommendations, grains should be depicted in the "base" of the Pyramid or what ever shape the graphic takes. Whole grains and enriched grains should not be separated.

- According to USDA figures, consumers are not getting the recommended number of grain servings each day. Maintaining grains at the "base" would be important in reminding consumers to choose servings from this primary food group.

- Grain foods provide B vitamins (including folic acid), iron, fiber and numerous other vitamins, minerals and phytonutrients. Grains are convenient, consumer friendly, versatile, easy to store and prepare, well known and accepted in the diet of virtually all cultures. This cannot be said for all of the food groups.

- Grains are important in anti-obesity strategies. As the Dietary Guidelines point out, "Grain products are low in fat, unless fat is added…" Grains also are low in calories. For example, rice has 81-103 calories per half-cup cooked serving and only a trace of fat, making it a good option for weight loss or weight maintenance.

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C. Keep Enriched and Whole Grains Together; Maintain Focus on Enriched Grains, Key Source of Folic Acid, for Important Health Benefits Throughout the Life Cycle

- **Separating whole grains from enriched grains would be confusing to consumers, and could imply that enriched grains are not recommended.**

- **Public policy science on folic acid delivers important health benefits; enriched grains are the key dietary source of folic acid.**

- While we support the goal of consuming more whole grains, it should not be at the expense of enriched grains. As we have observed the Dietary Guidelines Advisory Panel's deliberations, we are concerned that draft language in the panel's documents strongly discourages the consumption of any other type of grain food besides whole grains. We emphatically disagree with this direction and are concerned that it will set up a good food/bad food situation. Therefore, we urge USDA to position enriched rice and grains equally within the grain category in the new Food Guidance system.

- Scientific evidence shows that enriched grains such as enriched white rice have played an overall beneficial role in improving public health. For example, the federal government's mandate to add folic acid to enriched grains to prevent birth defects was a coup of public policy science that has produced dramatic results. The rice industry is proud to participate in a program that has vastly improved infant health. **Having required the grain industries to enrich their products, and since women of childbearing age are advised to seek out and consume such products, it would be a disservice to both the public and grain industries to in any way imply that enriched products are to be avoided. Since it would also be contrary to the government's nutrition advice to women, it would not serve the goal of harmonization of food guidance that USDA and HHS are seeking in the 2005 revisions.**

- Recent information from the Centers for Disease Control highlights the importance of folic acid throughout the life cycle for its role in maintaining heart health. According to new data, heart disease remains the number one illness in America.

- Enriched grains are a key source of folic acid in the diet. The American Journal of Clinical Nutrition published a report showing that enriched grains like rice contribute over 200 micrograms, **or over half of Americans' total daily folate intake.** (1) The folic acid in enriched grains is also more bioavailable than folate found in legumes, fruits, vegetables and even whole grains. Between 1990 and 1999, grain foods were the primary contributor of the three major B vitamins in the diet (2). Grains contributed 60% of the thiamine in the diet, 40% of the riboflavin, and 45% of the niacin. Grain products also contribute 54% of the iron in the diet.

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II. Usefulness of proposed strategies to highlight both motivational/awareness and educational messages.

A. Overarching Message: Total Calories

- We urge CNPP to re-focus consumers on the importance of **total calories** in healthy eating and weight management. With all the media hype about fad and extremist diets --which create nutritional deficiencies and are difficult to adhere to -- consumers have lost the calories in-calories out focus. Total calories together with added emphasis on the importance of exercise should be the over-arching message of the new Food Guidance System.

B. Channels of Delivery

- USA Rice stands ready to assist USDA with implementation of the new Food Guidance System through our consumer communication programs. We look forward to working with CNPP to accomplish this goal.

Thank you for the opportunity to provide our comments.

Sincerely,

Stuart E. Proctor Jr.

Stuart E. Proctor Jr.
President and CEO
USA Rice Federation

Sources:

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AUG 27 2004

North American Millers' Association
Washington, DC
www.namamillers.org

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August 26, 2004

Eric J. Hentges, Ph.D.
Executive Director
Food Guide Pyramid Reassessment Team
USDA Center for Nutrition Policy and Promotion
3101 Park Center Drive, Room 1034
Alexandria, VA 22302

RE: Federal Register Notice 42030, Volume 69, No. 133, July 13, 2004
Center for Nutrition Policy and Promotion; Notice of Proposal for Food Guide Graphic Presentation and Consumer Education Materials; Opportunity for Public Comment

Dear Dr. Hentges:

Thank you for the opportunity to comment on the Food Guide Graphic and consumer education materials used to interpret the Dietary Guidelines for Americans. NAMA (North American Millers' Association) is the trade association representing more than 95 percent of the grain dry milling industry. NAMA's 46 members operate 170 wheat, corn and oat mills in 38 states. They collectively produce more than 160 million pounds of milled grain products each day.

Below are comments on the six areas in which you requested guidance in the Federal Register:

A) *Advantages and disadvantages of retaining current shape for graphic and other potential shapes to use as a representative of the overall Food Guidance System.*

NAMA recommends the Food Guidance System graphic remain a pyramid. The pyramid shape has developed considerable consumer recognition. A Gallup survey (2002) conducted for the Wheat Foods Council showed the Food Guide Pyramid was recognized by 76 percent of American adults over the age of 18 (another five percent were familiar with it in name only). Eighty-two percent of those agreed that the Food Guide Pyramid is the foundation of a healthy eating plan. With that kind of recognition already developed, the pyramid is a powerful tool to gain the attention of consumers.

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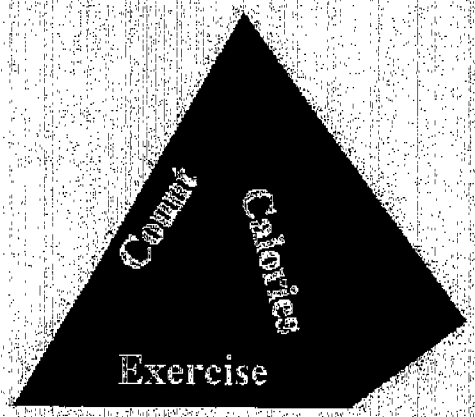
The only disadvantage of keeping the pyramid graphic is that the consumer may not pay attention to the dietary guideline changes; associating the pyramid with the dietary guidelines previously established. However, surveys show that less than six percent of Americans follow the pyramid. This would indicate the graphic is not the determining factor in following the guidance. The greater challenge is establishing motivating messages and educational materials that will make a difference. Knowing that financial resources are always limited, it would seem more appropriate to put funding into marketing the messages and educational materials than into promoting a new graphic.



You can add some change to the look of the pyramid and enhance the message by adding the words "exercise" at the base and "count," "calories," on each side as illustrated here.

B) *Usefulness of the proposed strategies to highlight both motivational/awareness and educational messages.*

NAMA supports using the pyramid as a graphic symbol in conjunction with a slogan and core messages. The current pyramid already has good recognition and is used widely by industry. Continuing to use the pyramid to represent the Food Guidance System to the public and to identify/brand Food Guidance System materials is a good strategy. With a concise slogan attached, it will create awareness for the educational messages you want to deliver. Messages should include both the healthy eating and exercise components.

C) *Advantages and disadvantages of the plan to individualize guidance in contrast to "generalized" messages.*

We agree that there must be some universal messages. These should deliver a simple message for a broad audience.

Individualized guidance will be more useful to consumers who want to follow a plan. Going back to the Gallup Poll results, 86 percent of those polled recognized the pyramid as a healthy eating plan. Less than 10 percent reported actually following the guidelines. You can assume less than 10 percent of the population will use interactive personalized guidance tools.

D) *Advantages and disadvantages of the planned focus on core messages in contrast to use of a graphic to represent educational messages.*

Since less than 10 percent of the population follows the pyramid guidelines, it makes sense to focus on core messages and not the graphic to provide detailed educational messages. To be effective, the messages should be simple. Example: Count calories. Count steps.

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E) Key components for effective interactive educational tools.

Key components of an effective interactive educational tool are easy to use, easily accessible, rewarding, and fun. The tool will not be used if it is not marketed to the consumer. The consumer will not use the tool if they do not know it exists.

We do not believe the Interactive Healthy Eating Index (IHEI) and Interactive Physical Activity Tool (IPAT) are effective tools. The consumer is not aware of the indexes. Buried in CNPP's web site, they are laborious to use. The indexes would be more effective if they were in a web site that had a memorable name.

Using the pyramid as a linking icon, a stand-alone web site for the Food Guidance System could include all educational materials for the System as well as links to the indexes. Sample menus and recipes may help the site become more rewarding. Encourage the private sector to hyperlink to the web site by putting the pyramid/slogan icon on the home page of their web site. When viewers mouse over the pyramid graphic, they are linked to the web site.

Or, the pyramid could have a space to enter your birth year resulting in a link to ideal weight and activity levels depending upon your gender.

This idea comes from an online service provided by Capitol Advantage. Capital Advantage offers a service called CapWiz that links Internet users to their Congressional representatives when they enter their zip code into a graphic of the Capitol dome. You can see how it works by visiting NAMA's web site at http://www.namamillers.org.

Other possible tools to consider: slide charts or wheels, calorie counters, and pedometers.

F) *Channels of delivery for the Food Guidance System.*

The Internet is a wonderful tool and accessed by a large segment of the population. It is not likely to be used to a great extent by the elderly or lower income families. A portion of the population simply won't spend the time to "search the net."

A large number of consumers will be impacted by messages that are simple and concise.

Ideas for delivering messages:

- Provide posters, brochures, slide charts, and counters to the offices of healthcare providers.
- Prepare a series of one-minute video messages for use in the offices of healthcare providers, Channel One programming at schools, retail grocery stores and airport terminals.
- Develop a healthy eating lesson plan that teachers can download from the Internet.
- Offer family nutrition classes to expecting mothers through their healthcare provider.

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- Offer a family nutrition class to parents of children entering school.
- Form a partnership with retail grocers such as Wal-Mart.

Mothers, followed by teachers, are the primary audiences to target. Children eat what their parents and teachers prepare for them. Mothers plan family meals, prepare the meals, and do the shopping. Mothers decide whether or not to stop at a fast food restaurant or prepare their family meal at home. Mothers prepare school lunches for their children.

First time expectant mothers are particularly open to receiving nutritional messages. First time mothers are looking for guidance and information on raising healthy children.

Given the proper educational materials, teachers can develop curriculums to convey the desired messages. Teachers can reinforce what is practiced at home.

NAMA applauds CNPP's initiative to review and update the Food Guide graphic and educational materials for professionals and consumers. We appreciate the opportunity to provide our ideas.

Sincerely,

Betsy Faga

Betsy Faga
President

AUG 27 2004

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Richardson
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August 26, 2004

Food Guide Reassessment Team
USDA Center for Nutrition Policy and Promotion
3101 Park Center Drive, Room 1034
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Comments in Response to Federal Register Doc. 04-15710, Vol.69, No. 133

The California Tree Fruit Agreement (CTFA) writes this letter in support of a recommendation for the revised Food Guide Pyramid Graphic urging consumers to eat at least 5 to 13 servings of fruits and vegetables per day. Further, we support increased prominence for fruits and vegetables in the revised graphic by placing this important food group at the bottom of the pyramid.

Our organization is especially concerned about growing health issues concerning poor nutrition among children. In 2004, the California Tree Fruit Agreement launched the "Healthy Kids" promotion which emphasized the importance of consuming more fruits and vegetables and specifically provided fun and tasty ways to include more peaches, plums and nectarines in kids' diets. Since the Food Guide Pyramid is an important learning tool in many classrooms, increased prominence for fruits and vegetables in the graphic will provide an important foundation for programs like CTFA's "Healthy Kids."

As the nutrition community is well-aware, produce organizations often fight a difficult battle competing against high-fat, high sodium processed foods. Revising the Food Guide Pyramid to reflect the importance of fresh fruit and vegetables in the diet is one way the government can help fruit and vegetable producers communicate to consumers the benefits of our healthful products.

We appreciate your consideration of this letter.

Best regards,

BRRLL

Blair R. Richardson
President

cc: Elizabeth Pivonka

By Federal Express Overnight

WESTERN GROWERS™

Fresh produce from our families to yours.

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August 24, 2004

Food Pyramid Reassessment Team
USDA Center for Nutrition Policy and Promotion
3101 Park Center Drive
Room 1034
Alexandria, VA 22302

RE: Center for Nutrition Policy and Promotion; Notice of Proposal for Food Guide Graphic Presentation and Consumer Education Materials; Submission of Public Comment

Dear Sir or Madam:

Western Growers Association represents 3,000 growers, shippers and packers of specialty crops who produce 90 percent of the fresh vegetables and nearly 70 percent of the fresh fruit and nuts grown in Arizona and California, or about one-half of the nation's fresh produce. Since the organization was founded in 1926, Western Growers has been dedicated to increasing the production and consumption of fruits, vegetables and nuts domestically and abroad through legislative efforts, industry partnerships, science and technical guidance and promoting nutrition through consumer education and advocacy. In addition, the association also provides health insurance to tens of thousands of families in both states. Our interest has always been in maintaining the health of those families and businesses.

With the restructuring of the Food Guide Pyramid, Western Growers is fully supportive of the Department's reassessment of the national policy towards nutrition, including the recommendation to increase the daily intake of fruits and vegetables. With rising childhood obesity and diet-related diseases, it is imperative that families be provided with guiding nutrition principles to promote a healthier lifestyle and diet. The average American consumes only 1.5 servings of fruits and 3.3 servings of vegetables daily. Americans are lacking in vital nutrients, including vitamins A, C and E and the minerals potassium, calcium and magnesium. The most efficient and cost-effective way to get these nutrients is by eating fruits and vegetables. Western Growers strongly supports the revised Food Guide Pyramid's recommendation of the consumption of at least five and as many as 13 servings of fruits and vegetables per day.

Mailing Address: Newport Beach, CA **Street Address:** Irvine, CA
T **F:** **Internet:** www.wga.com

Mc Inerney
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Science continues to promote the benefits of fruits and vegetables, such as greatly reducing the risk of diseases, including cancer, diabetes and heart disease. Most recently, an antioxidant in blueberries has been found to lower cholesterol. Almost daily, we learn more and more about the healthful results of increasing our intake of fruits and vegetables, but yet 85 percent of all Americans do not eat the recommended daily five servings per day. Western Growers believes it is critical that this process look at opportunities to enhance key message points directed at consumers and thus provide the most accurate help to consumers in order to close the gap between actual intake and recommended intake, and encourage the highest consumption of a variety of fruits and vegetables in their daily diet.

Our association would also recommend that the final iteration of the dietary guidelines encourage the consumption of foods that are lower in fat, sugar and sodium. Fruits and vegetables are naturally low in fat and sodium, but we would also support the usage of the "low fat" or "lean" designations.

Western Growers, while open minded to a graphic shape other than a pyramid, strongly encourages that should the current pyramid shape stay in place, fruits and vegetables would be an appropriate cornerstone displayed at the bottom of the pyramid to emphasize the recommended increased consumption of produce as suggested by the Dietary Guidelines Advisory Committee.

We also encourage coordination among government agencies to promote the Guidelines, including the school lunch program, as well as other programs which are designed to educate Americans on a healthy lifestyle.

Thank you for your consideration in accepting these comments.

Sincerely,

Matthew M. McInerney

Matthew M. McInerney
Executive Vice President
Western Growers Association

A. L. Gilbert Company
Oakdale, California
Fax
Since 1892
Bulk Dairy Feeds Sacked Feeds Liquid Feeds Field Seeds

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August 26, 2004

Food Guide Pyramid Reassessment Team
U.S.D.A. Center for Nutrition Policy and Promotion
3101 Park Center Drive, Room 1034
Alexandria VA 22302

Dear Reassessment Team:

We would like to take this opportunity to thank the U. S. Government and U.S.D.A. for studying the values represented in California's milk standards. You went the distance for California consumers in protecting our concerns in the 1995 Farm Bill. Thank you!

Since the need for any standards is being debated, we would like to share with you a description of the values we perceive in California Milk Standards:

- California's four milk choices of whole, reduced fat or 2-10, low fat or 1-11 and non fat provide a nice variety of choices that families make use of for individual needs. Of these choices the formula that we choose for ourselves can be counted on to be consistent in flavor, taste and nutrition, because the variability of the milk solids in each choice is minimized. Total milk solids are always consistent and that allows us to have confidence in our choice and be comfortable that we will get a consistent favor and taste. We know what we are going to get, each time.

- Another value that we receive in our California Milk Standards is one of economic value. By having the milk solids at a consistent level we know that the cost value of each unit of protein, calcium, vitamin and energy levels are maximized. Also of importance when analyzing the value or cost per unit of nutrient is to know that the packaging, shipping and retailing of a consumer food product is a large portion of the cost. Take the example of bottled milk or bottled water. Both products have a large cost associated with getting the nutrients to the consumer. However if protein and calcium is what you are paying for, it helps that the contents of the container is nutrient dense, in order to deliver that nutrient most economically. By standardizing with very few variables, we know we are maximizing our economic value through increased nutrient density. In

California the nutrient density in our reduced fat, 2-10 and 1-11 is also enhanced by adding solid-not-fat to make up for the removal of fat. First, by making the total milk solids similar to that of whole milk, flavor and taste is enhanced. Secondly, the added nutrient density per serving allows for greater economic value per unit of nutrient.

- There is an additional value the consumer gets by having the consistency of our milk choices and that is performance. By having a good understanding and a confident attitude in the foods we eat, we can prepare for the tasks of thinking, doing physical work, or better endurance. The results are like having an extra person on your side or a hidden advantage when it comes to your performance. This value is something we all need in order to contribute fully to society.

Concerning the current Federal Whole Milk Standard:

- For the reasons stated above, we eagerly encourage you to strengthen the Federal Whole Milk Standards of solids-non-fat, proteins and fat so that flavor, taste, consistent nutrition, economic value and confidence in the product are enhanced. Putting in the milk solids, equivalent of what the cow produces will provide a standard that is reliable and consistent.

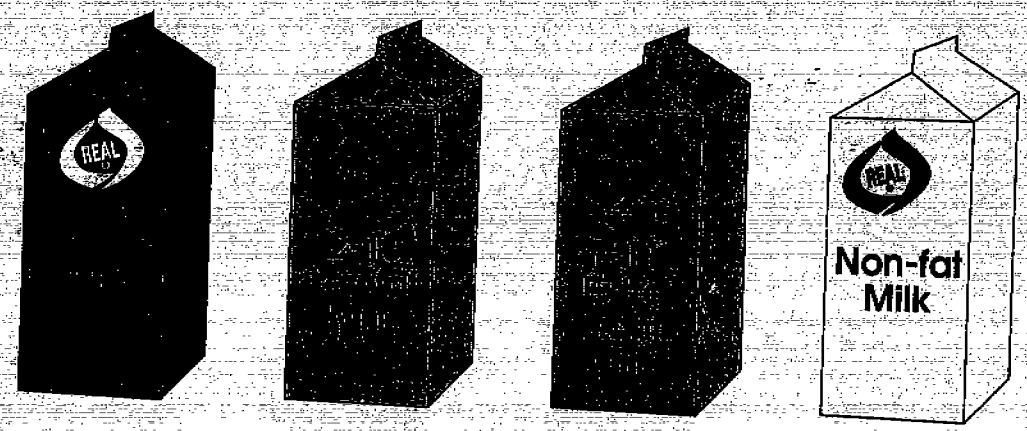
Sincerely,

William M. Daly

William M. Daly
A. L. Gilbert Company

"High 5 for Milk"

Reduced fat Low fat



Daily

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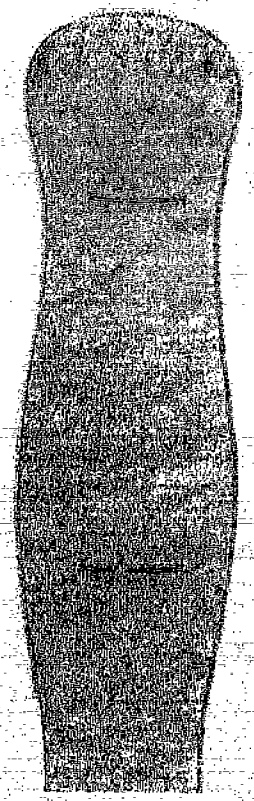
CALIFORNIA MILK STANDARDS

When you have come to expect the best - Don't settle for less.

MILK SOLIDS supply the BUILDING BLOCKS for YOUR BODY.

- 76% of the CALCIUM needed for your bones and teeth
- 20% of your daily PROTEIN for muscle development & repair
- 25% of VITAMIN B12 & RIBOFLAVIN for healthy blood and skin



To allow for your body's peak performance CALIFORNIA MILK STANDARDS offer 4 ENERGY choices. Designed to fit your own individual need.

Enjoy 2-4 servings of dairy products daily.

Thanks for visiting

A. L. Gilbert Co.

ALG

Since 1892
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WHITE Technical Research

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Comments on the Proposed Plan for Revising the Food Guide

White 1 of 2

27 August 2004

Food Guide Pyramid Reassessment Team
USDA Center for Nutrition Policy and Promotion
3101 Park Center Drive, Room 1034, Alexandria, VA 22302

Dear Sirs:

Please accept this submission, made on behalf of the Corn Refiners Association, in response to the Federal Register notice dated July 13, 2004 concerning proposals for the food guide pyramid and consumer education materials. The Corn Refiners Association of Washington, DC is the trade association that represents the corn wet milling industry.

Our firm, White Technical Research, is located in Argenta, IL. With 25 years experience in nutritive sweetener chemistry, metabolism and nutrition, we provide technical research services to the food and beverage industry. The Corn Refiners Association is one of our clients.

In testimony before the Committee on August 19, 2004, Bill Sanda, Director of Public Affairs for the Weston A. Price Foundation, urged USDA to recommend a decrease in the consumption of highly processed foods, especially foods containing high fructose corn syrup (HFCS). Mr. Sanda's testimony, however well-intentioned, is without scientific merit. His testimony confuses the identity, composition, chemistry and metabolism of common sweeteners; incorrectly extrapolates studies conducted at unphysiologically high fructose concentrations to HFCS; misquotes sweetener production and daily intake values; and reports anecdotal evidence as though it were fact.

It is important to recognize that HFCS is not pure fructose. Rather, HFCS is comprised of approximately equal amounts of glucose and fructose. For this reason it is inappropriate to extrapolate studies conducted with fructose to HFCS: the two are neither equivalent in composition nor metabolic response. Further, many of the studies referenced by Mr. Sanda were conducted at very high levels of fructose - levels that are rarely encountered, even in the most extreme diets. These studies have been dismissed by expert scientific panels, including the

wtrg@argenta.net

Fructose Nutrition Review of 1993, published in the American Journal of Clinical Nutrition.

We urge the Food Guide Pyramid Reassessment Team to maintain its focus on the total diet, rather than on single ingredients. We support your assertions regarding the importance of energy balance in maintaining good health and the lack of a unique role for simple sugars in promoting disease.

As you correctly conclude, there is little difference in glucose-to-fructose ratios among common nutritive sweeteners like sucrose, HFCS, honey, invert sugar, and many fruits and juices. Consequently, there is also little difference in the absorption and metabolism of these sweeteners.

Despite the current rash of statistical associations, there remains no evidence of a credible scientific relationship between carbohydrate intake and the incidence of either type 1 or type 2 diabetes. The only verified role of simple sugars in the development of obesity is their contribution, along with other macronutrients, to the total caloric load.

It is important to remember that the U.S. Food & Drug Administration (FDA) awarded HFCS "Generally Recognized as Safe (GRAS)" status in 1983. FDA reaffirmed GRAS status for HFCS again in 1988 and 1996 after careful review of the scientific literature.

Today's busy lifestyles require ready access to nutritious, appealing foods in shelf-stable, easy-to-prepare forms. Without the availability of nutritive sweeteners like those above — with their important functional properties — the successful manufacture of many products would not be possible.

Respectfully yours,

John S. White

John S. White, Ph.D., President
White Technical Research

wtrg@argenta.net

National Sunflower ASSOCIATION

Bismarck, ND USA
Phone:
Fax:
www.sunflowernsa.com

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Food Guide Pyramid Reassessment Team
USDA Center for Nutrition and Science Policy and Promotion
3101 Park Center Drive
Room 1034
Alexandria, VA 22302

August 27, 2004

Dear Food Guide Pyramid Reassessment Team:

Sunflower seeds are power packed with healthy fats, protein, fiber, minerals, vitamin E and phytochemicals.

Sunflower Seeds are Nutrient Dense
Sunflower seeds are nutrient dense and should be mentioned by name in the proposed Daily Food Intake Patterns. Most Americans are not currently meeting the requirement for vitamin E. Sunflower seeds are an excellent source of hard-to-get vitamin E (1,2) and they contain mostly healthy unsaturated fats, which help with the absorption of vitamin E.

According to the USDA National Nutrient Database for Standard Reference, Release 17, a single serving (one ounce) of sunflower seeds provides 71% of the Recommended Daily Allowance for vitamin E, the highest of any whole food (1). In addition, sunflower seeds provide 9% of the Daily Value for magnesium, 17% of the Daily Value for folate, 4% of the Daily Value for potassium, and 8% of the Daily Value for fiber (1), nutrients which the Dietary Guidelines Committee 2005 has identified as lacking in American diets.

Therefore, sunflower seeds fit into the Food Guidance System proposed core message to "Promote nutrient dense food choices to increase intake of vitamins, minerals, fiber and other key nutrients, especially those that are often low in typical diets."

Proposed Core Messages—Substituting Unsaturated Fats for Saturated Fat
Scientific evidence proves that substituting unsaturated fats in place of saturated fats in the diet is beneficial for health (3). We support Food Guidance System proposed core messages intended to "lower chronic disease risk by lowering intake of saturated fats, trans fats, cholesterol, [etc.]." Moreover, a substitution message that advises consumers to consume unsaturated fat foods with high nutrient density, like sunflower seeds, in place of saturated fat foods, would optimize consumer education efforts.

Thank you for your consideration.

Best Regards,

Larry Kleingartner
Executive Director

References:
1. USDA National Nutrient Database for Standard Reference, Release 17. July 2004. Accessed August 25, 2004.

2. US Food and Drug Administration. A Food Labeling Guide—Appendix B. Relative (or comparative) Claims. September 1994, Revised June 1999. Accessed February 9, 2004. http://vm.cfsan.fda.gov/~dms/flg-6b.html
3. Ascherio A, Willett, WC. Trans fatty acids and coronary heart disease. *New England Journal of Medicine*. 1999;340:1994-8.

Kleingartner

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National Sunflower ASSOCIATION

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Food Guide Pyramid Reassessment Team
USDA Center for Nutrition and Science Policy and Promotion
3101 Park Center Drive
Room 1034
Alexandria, VA 22302

Kleingartner
3 of 4

August 27, 2004

Dear Food Guide Pyramid Reassessment Team:

A new variety of sunflower oil, NuSun™, is a highly stable and healthful unsaturated oil. It can be used in commercial food applications without contributing trans fat, as most other unsaturated oils do.

Food Guide Pyramid Graphic
Currently, all fats and oils are placed at the top of the pyramid in the "use sparingly" section, which causes confusion. A distinction should be made between healthy unsaturated fats and oils and saturated and trans fats, which are known to be harmful to health. Healthful unsaturated oils are essential to the diet and should appear near the bottom of the pyramid, or if another graphic is used, they should appear in the "consume regularly" section.

Proposed Core Messages—Substituting Unsaturated Fats for Saturated and Trans Fat
Scientific evidence proves that substituting unsaturated fats in place of saturated fats and trans fats in the diet is beneficial for health (1). We support Food Guidance System proposed core messages intended to "lower chronic disease risk by lowering intake of saturated fats, trans fats, cholesterol, [etc.]." Moreover, a substitution message that advises consumers to use unsaturated fats in place of saturated fats would be most helpful to consumers.

Researchers at The Pennsylvania State University recently compared healthful diets with either NuSun™ sunflower oil or olive oil, to the average American diet. Preliminary results from this clinical study show that substituting small amounts of NuSun™ sunflower oil daily in place of saturated fat had a significant cholesterol lowering effect, proving that small changes in the fat profile of the diet can have big benefits to health (2).

Decreasing Both Trans and Saturated Fats in the Diet
NuSun™ sunflower oil does not require hydrogenation and is naturally trans fat free. From a health stand point, NuSun™ sunflower oil also is low in saturated fat.

NuSun™ was developed by standard breeding techniques and is therefore, a natural, non-transgenic cooking oil. NuSun™ sunflower oil works extremely well in commercial cooking and frying, with a smoke point of 450° and a clean light taste. In addition, the natural stability of NuSun™ sunflower oil enhances product fry-life and shelf-life.

Thank you for your consideration.

Best Regards,

Larry Kleingartner
Executive Director

Kleingartner 4 of 4

References:

1. Ascherio A, Willett, WC. Trans fatty acids and coronary heart disease. *New England Journal of Medicine*. 1999;340:1994-8.
2. Abstract 7930 (revised). Experimental Biology 2003, San Diego, CA.

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THE Peanut Institute

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Food Guide Pyramid Reassessment Team
USDA Center for Nutrition and Science Policy and Promotion
3101 Park Center Drive
Room 1034
Alexandria, VA 22302

August 27, 2004

Dear Food Guide Pyramid Reassessment Team:

Based on a substantial amount of research, peanuts and peanut butter can and should be a part of an energy-balanced, heart-healthy, cholesterol-lowering diet (1,2). Peanut butter and peanuts should specifically be included in dietary guidance for the core messages.

Proposed Core Messages

a. *Keep caloric intake balanced with energy expenditure to prevent weight gain, promote weight loss, and/or maintain a healthy weight.*
   - A weight-loss study conducted at Harvard School of Public Health showed that dieters actually lost more weight and kept it off when they could include small amounts of peanut butter and peanuts in their daily diets (3).
   - Research shows that peanuts satisfy hunger and keep people feeling full longer than other snack foods, suggesting that they may be helpful in promoting energy balance (4). Peanut butter and peanut-users also have lower body mass index scores versus non-peanut users (5).

b. *Promote nutrient dense food choices to increase the intake of vitamins, minerals, fiber and other key nutrients, especially those that are often low in typical diets.*
   - Peanuts and peanut butter provide an economical source of protein and many other nutrients such as vitamin E, magnesium, fiber and folate, which have been identified by the Dietary Guidelines Committee 2005 as lacking in American diets.
   - Data from the 1994-96 Continuing Survey of Food Intakes by Individuals (CSFII) shows that peanut butter and peanut-users had an improved diet quality versus non-users. They had higher intakes of vitamin A, vitamin E, folate, calcium (62% of peanut butter sandwiches are consumed with milk), magnesium, zinc, iron and dietary fiber. Further, peanut-users had lower intakes of bad saturated fat and cholesterol, versus non-peanut users (5).

c. *Lower chronic disease risks by lowering intake of saturated fats, trans fats, cholesterol, sodium, and other food components that are often consumed in excessive amounts.*
   - A Food and Drug Administration qualified health claim already exists that recommends that Americans consume1.5 ounces of peanuts daily to prevent cardiovascular disease (6).
   - It should also be noted that not all food sources of solid fats are harmful to health. A substitution message that advises consumers to use unsaturated, plant-based fats and oils in place of saturated fats (e.g., a peanut butter sandwich in place of a deli sandwich) would be more instructive.

Powell 2 of 2

Peanuts and Peanut Butter Should Be Included in Food Guide Pyramid Graphics

Because almost 80 percent of the "nuts" eaten in the US are peanuts and peanut butter (7), we feel it is important to make consumers aware of their position in a healthy diet by including them visually and in the descriptive wording on the Food Guide Pyramid, or whatever the final graphic might be.

Proposed Daily Food Intake Patterns

Peanut butter and peanuts are one of the favorite and most frequently eaten foods in the US. The current nomenclature of the proposed daily food intake patterns does not seem to provide the correct identification of these foods that research shows should be eaten daily.

a. Meat and Beans Group

Peanut butter and peanuts are technically in the legume family, which represents how they are often eaten in other cultures or in the South as boiled peanuts. However, they are most widely consumed as peanut butter (sandwiches and with fruits and vegetables) or as peanut snacks, similar to nuts. Since "nuts" could be interpreted as only "tree nuts," the description of food items included in this group should read as one of the following:

...eggs, peanuts, nuts and seeds, OR
...eggs, nuts, (including peanuts), and seeds, OR
...eggs, peanut butter, nuts and seeds.

This would be reflective of consumer intake since "nut" consumption is over one third peanut butter, one third peanuts and approximately one third all nine tree nuts combined.

b. Vegetables—Legumes

Peanut butter and peanuts should also be included in the "legumes" subgroup of the "vegetables" group, since they are technically in the legume family.

Thank you for your consideration.

Sincerely,

John T. Powell

John T. Powell
President

References

1. Kris-Etherton PM, Pearson TA, Wan Y, Hargrove RL, Moriarty K, Fishell V, Etherton TD. High-monounsaturated fatty acids lower both plasma cholesterol and triacylglycerol concentrations. *American Journal of Clinical Nutrition*. 1999;70:1009-1015.
2. Kris-Etherton PM, Guixiang Z, Binkoski ME, Coval SM, Etherton TD. Special article: The effects of nuts on coronary heart disease risk. *Nutrition Reviews*. 2001;59(4):103-111.
3. McManus K, Antinoro L, Sacks F. A randomized controlled trial of a moderate-fat, low-energy diet compared with a low-fat, low-energy diet for weight loss in overweight adults. *International Journal of Obesity*. 2001;25:1503-1511.
4. Alper CM, Mattes RD. Effects of chronic peanut consumption on energy balance and hedonics. *International Journal of Obesity*. 2002;26:1129-1137.
5. "Dietary Patterns for Families," Scientific Presentation by Penny Kris-Etherton, PhD, RD. American Dietetic Association Meeting, October 19, 2002.
6. Nuts and coronary heart disease. (Docket No 02P-0505). July 2003. http://www.cfsan.fda.gov/~dms/qhcnuts2.html
7. *Federal Register*. September 11, 2003. Vol. 68, No. 176.

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Chor San Khoo, Ph.D.
Vice President – Global Nutrition & Health

Campbell Soup Company

Camden, NJ (

Phone
Fax

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August, 27, 2004

Food Guide Pyramid Reassessment Team
USDA Center for Nutrition Policy & Promotion
3101 Port Center Drive room 1034
Alexandria, VA 22302

Attn: Dr. Eric Hentges, Executive Director

Re: Notice of Proposal for Food Guide Graphic Presentation and Consumer Education Materials

Dear Dr. Hentges,

Campbell Soup Company ("Campbell") is a global manufacturer and marketer of high quality soup, sauces, beverages, biscuits, confectionery and prepared food products. The Company is 135 years old, with $7 billion in annual sales and a portfolio of more than 20 market-leading brands.

We applaud the efforts of the USDA Center for Nutrition Policy and Promotion (CNPP) to revise the current Food Guidance System ("System") to make it simpler, more effective and more understandable to the general public. This undertaking is necessary to improve the nutritional and health status of the American population. We agree with you that a multi-component System is crucial for achieving the goals set forth in the Notice and for translating those goals into positive food choices and dietary actions.

We offer the following response to your request for comment on topics of particular interest:

COMMENTS CONCERNING THE MOTIVATIONAL/AWARENESS COMPONENTS

1. **Even though the current pyramid graphic benefits from significant public awareness, we recommend that it be replaced by a different graphic that is more easily understood by consumers and more likely to motivate behavior change than the existing graphic.**

We created and engaged one of the world's largest independent consumer research organizations to test a number of different graphics and have attached a report of the results of that research as Attachment A. The research investigated the attitudes of 1100 consumers in a quantitative national study conducted this month. As you can see from Attachment A, we found that circular or rounded graphics were significantly preferred over the current graphic for: (a) being easier to understand, (b) being more visually appealing, (c) best explaining what a healthy diet should include, (d) having more impact on guiding food decisions, and (e) being more motivating to change behavior. Including a figure of a runner also reinforced the notion and importance of regular physical activity.

A graphic that we have designated as "Rings" performed very well with consumers and was the strongest of all of the options tested, including the current food guide pyramid, especially on the dimension of motivating a change in behavior. For your convenience, we have also included, as Attachment B, what we recommend as an improved version of this distinctive graphic.

Khou 2 of 30

A consumer preference for a circular shape is consistent with USDA's 1992 findings, where consumers found a bowl shape to be more appealing than a pyramid, especially in conveying variety.

Although one should not casually depart from a graphic that has been used over a period of time, it is more important that a graphic be effective in communicating the desired messages than that it be already well known. The anticipated investment in the educational campaign will provide the awareness that the pyramid graphic already has.

2. The graphic should communicate a limited number of essential messages so as to avoid confusion. Those messages should be limited to: (a) variety, (b) proportionality, (c) moderation, (d) exercise, and (e) the benefit of following this holistic advice.

We agree that burdening the graphic with too much information will prevent it from effectively communicating any of the information. On the other hand, we believe that it is essential to add two elements to the graphic as essential parts of a motivating basic message addressing change in overall lifestyle. The first of those elements is exercise. It is well accepted that exercise is an essential component of maintaining a healthy weight and maintaining basic fitness. The graphic should remind consumers of this in a motivating way. The second new element is a statement of the benefit of following dietary guidelines and exercising. One way to express that benefit is in terms of "feeling good."

We believe the study referenced in Attachment A supports the effectiveness of incorporating exercise and feeling good messages in a graphic. All test graphics included the phrase "EAT RIGHT. BE ACTIVE. FEEL GOOD." Even though the graphics designated as "Black Bowl" and "Revised Pyramid" did not perform as well as the current pyramid, their performance on the attribute "Is more motivating to change your behavior" was directionally better than their performance on the other attributes tested. The "Rings" graphic stands out on the "is more motivating to change your behavior" attribute, presumably because the call to action "EAT RIGHT. BE ACTIVE. FEEL GOOD" was reinforced with a figure of a runner. It was the only graphic to include such a figure.

The recommended graphic (included as Attachment B-1) adds the language "EAT RIGHT. BE ACTIVE. FEEL GOOD," used for the purposes of testing, under the design, adds an additional running figure, and does not include specific serving range recommendations.

3. The graphic should not specify numbers of servings, because these recommendations should vary according to people's individual needs, and providing numbers adds confusion.

For many people, the numbers of servings specified on the current food guide pyramid are not appropriate. Any core graphic for the Food Guide System should be valid for all Americans. In addition, specifying the numbers of servings adds confusing detail to the graphic, and does not substantially enhance the communication of proportionality and moderation conveyed by the recommended graphic. Information about the numbers of recommended servings should be included in the educational components because they vary according to the factors described below in item 7. For your convenience, the recommended graphic modified to include serving ranges is included as Attachment B-2. Further research is needed to better understand whether specifying a wide range of recommended numbers of servings on a graphic (with no explanation) is helpful or confusing to consumers in motivating a change of behavior.

COMMENTS CONCERNING THE EDUCATIONAL COMPONENTS

4. The serving sizes used in consumer education materials and label serving sizes should be the same.

Serving sizes are confusing to consumers. The size of a "serving" is not readily apparent, especially given the sizes of servings to which consumers have become accustomed. This is, obviously, compounded if official dietary guidance and government mandated nutritional information are based on different serving sizes.

5. **It is important to teach consumers how to incorporate processed foods into dietary planning.**

More than 60% of the food Americans consume is processed food. Processed foods are more affordable and accessible to people than fresh foods. This makes it important that dietary guidance teaches people how to incorporate processed foods into their diets. Not including processed foods in recommendations also perpetuates the mistaken belief that processed foods are not as nutritious as fresh foods. People should be taught how to use the foods that are available to them effectively.

6. **Recommendations for servings of grains should remain the same. However, dietary guidance should include a substantial increase in the servings of fruits and vegetables to a level at least double the current recommendation. It should also emphasize the contributions of food sub-groups so as to encourage variety, including a specific recommendation to consume three or more servings of whole grains.**

Current scientific evidence supports a very significant increase in the recommendations for consumption of fruits and vegetables, as well as a specific recommendation of servings of whole grains.

7. **We agree with CNPP that food choice and serving size recommendations should be tailored to sub-groups of the population. Specific recommendations should be contained in educational materials and should not be included in the graphic.**

Indeed, one recommendation does not fit all. Appropriate food choice and serving size recommendations depend upon a person's age, sex, anthropometrical state (height and weight), ethnicity, physical activity, and physiological state (e.g., pregnancy, lactation, disease condition, and disease risk status). Different recommendations concerning intake of saturated fats and cholesterol may be made, for example, for people at risk for heart disease.

We appreciate the opportunity to comment on this Proposal, and are available to support you in your efforts to make the Food Guidance System more effective in fulfilling its mission.

Sincerely,

Chor San Khoo, Ph.D.

Attachment

(Attachment A)

Balanced Lifestyle Guide Project

PREPARED FOR: Campbell's

PREPARED BY: Synovate

DATE: August 27, 2004

synovate

Research reinvented

I. Background & Objectives

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5 of 30

Background:

The USDA creation of the Food Pyramid was originally intended to help Americans make choices that 1. were adequate in meeting nutritional standards but 2. moderate in energy level and in food components often consumed in excess. Its goal was to make "total diet" recommendation.

Learning that most Americans are familiar with the Food Pyramid Guide, but few follow the recommendations, the USDA seeks to develop a new consumer presentation to help motivate consumers to improve their food choices.

Aware that the USDA was seeking input to create a food guidance system that is more effective, more comprehensible and simpler for general public usage, the Campbell Soup Company fully supported this effort. Campbell's hired an independent, global market research company, Synovate, and initiated a primary research project to explore alternative graphic designs. Four different graphic depictions were created for consumer evaluation.

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synovate
Research reinvented

About Synovate

Synovate, formed in 2001 (formerly Aegis Research) and branded as Synovate in 2002, was acquired by the Aegis Group plc in London in 1999. In the United States, Synovate includes the former Market Facts Inc., founded in 1946 and based in Chicago; BAIGlobal; Strategy Research Corp.; MarkTrend Research Inc.; Copernicus Inc. and IMR Research Inc.

Robert Philpott is CEO of Synovate in the Americas and Adrian Chedore is worldwide CEO for Synovate.

Synovate is a top global research company, operating in 47countries and employing more than 3,300 people. The company generates consumer insights that drive competitive marketing solutions and provides a broad range of market intelligence services - using powerful and established methodologies, as well as innovative and tailored solutions.

Synovate's clients range from Fortune Global 500 conglomerates to entrepreneurial start-ups and come from all sectors of industry, including consumer packaged goods, petrochemicals, media and advertising, government, fast food, health care, technology and more.

synovate

Research reinvented

Research Objectives:

The objective of this research was to obtain consumer feedback on the strengths and weaknesses of various graphic designs, specifically: ease of understanding, communication of a well balanced diet, and the ability to motivate a change in behavior.

Additionally, the research was to offer the USDA graphic design options with improved communications for an improved Food Guide.

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synovate
Research reinvented

II. Methodology

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Methodology:

A five-cell, protomonadic test was conducted via the internet using Synovate's ePanel. The end sample size was n=1,100.

Among four of the five cells, 200 interviews per cell were conducted among a nationally representative sample of adults, aged 18-69, 80% female/20% male. In these cells, respondents were shown one of four alternative food guide graphic depictions, asked for monadic evaluations and then were exposed to the current food guide pyramid to obtain preference on key measures.

The fifth cell, with 300 interviews, always exposed the current food pyramid first, obtained the monadic evaluation, and the respondents were shown one of the four alternative test designs to get preference on the same key measures (n=75 per test design).

On all tables, lower case letters represent significantly higher than column indicated at the 80% level of confidence; capital letters represent significantly higher than column indicated at the 90% level of confidence.

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II. Graphic Designs

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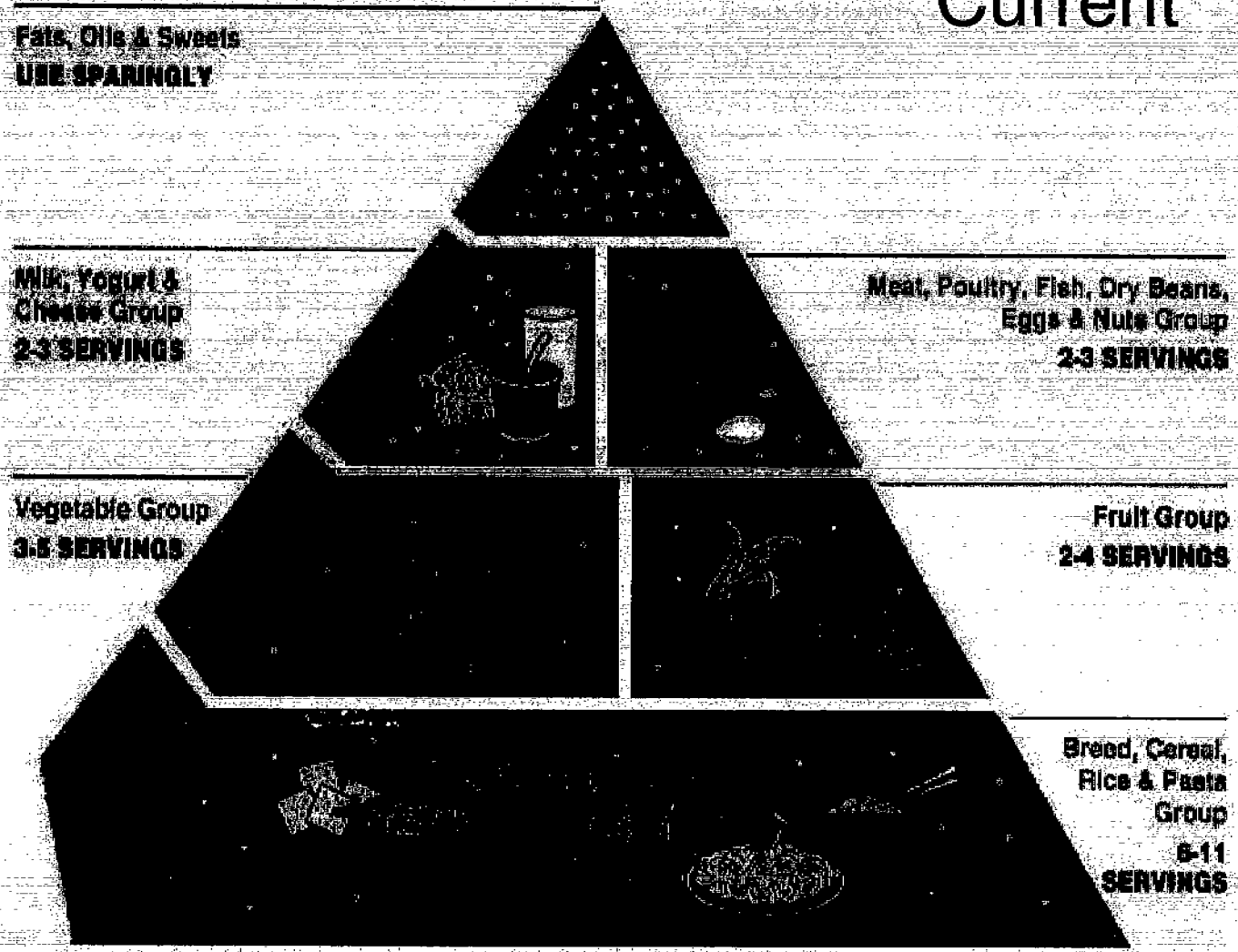
Current



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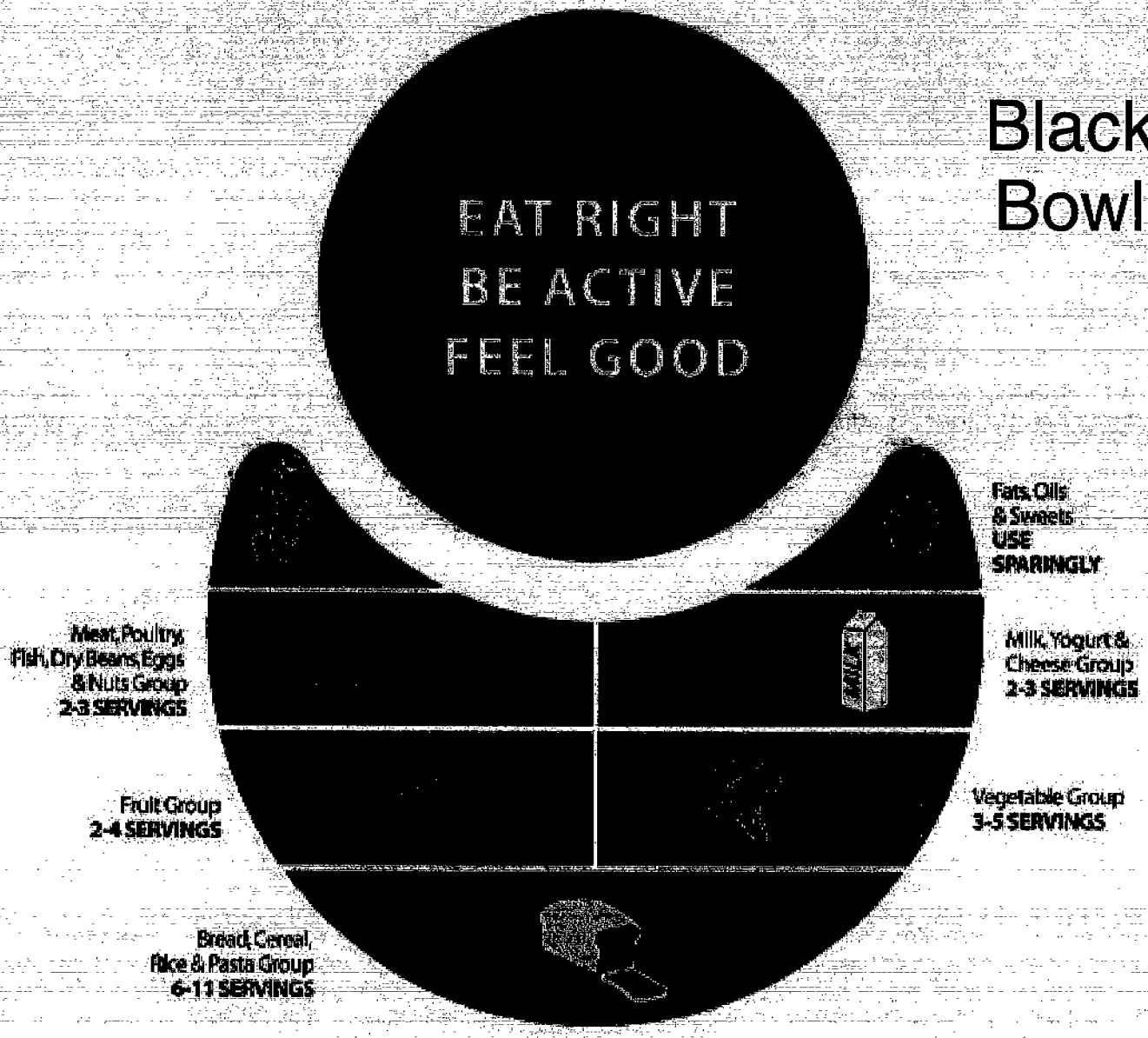
Black Bowl



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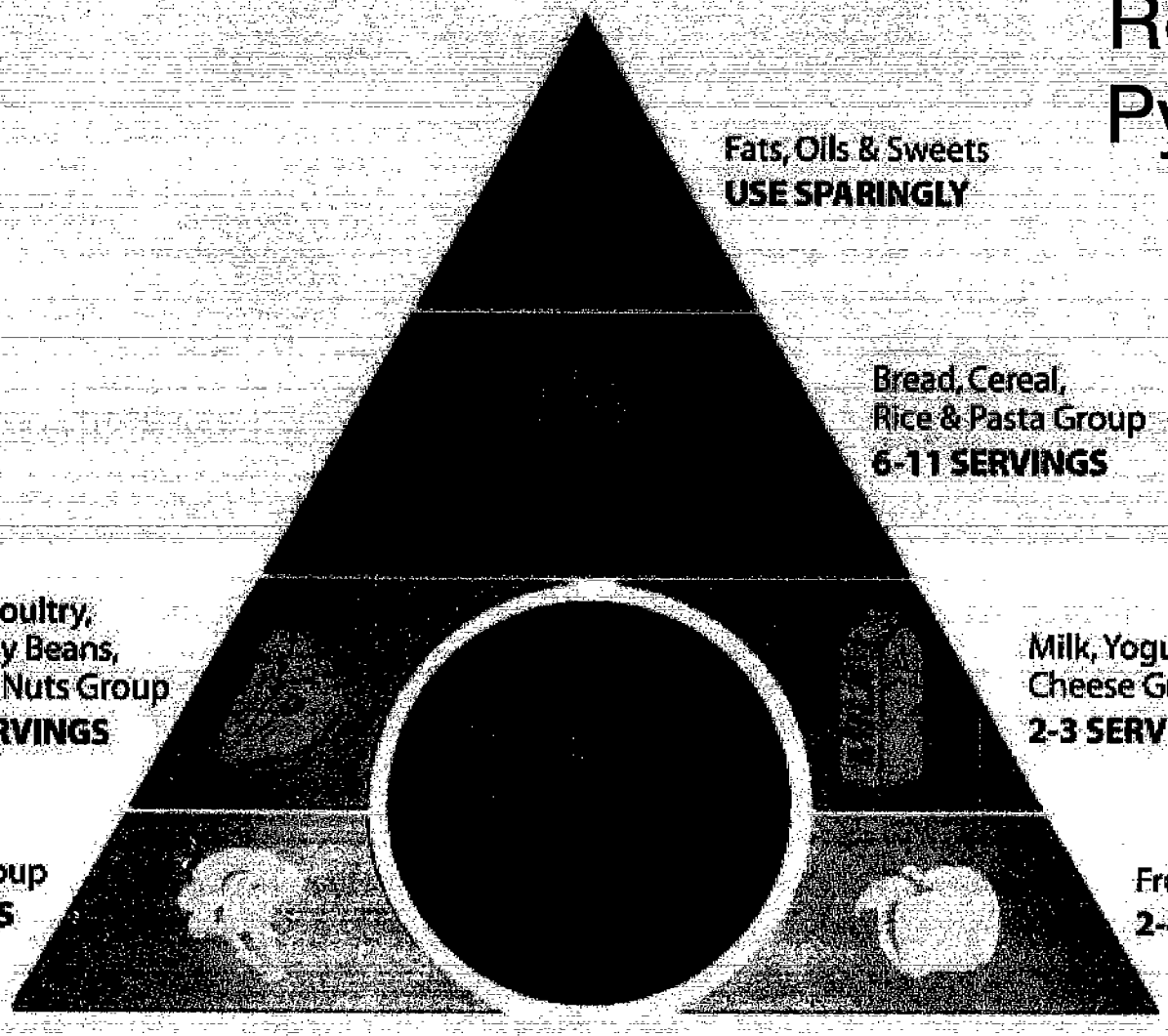
Revised Pyramid



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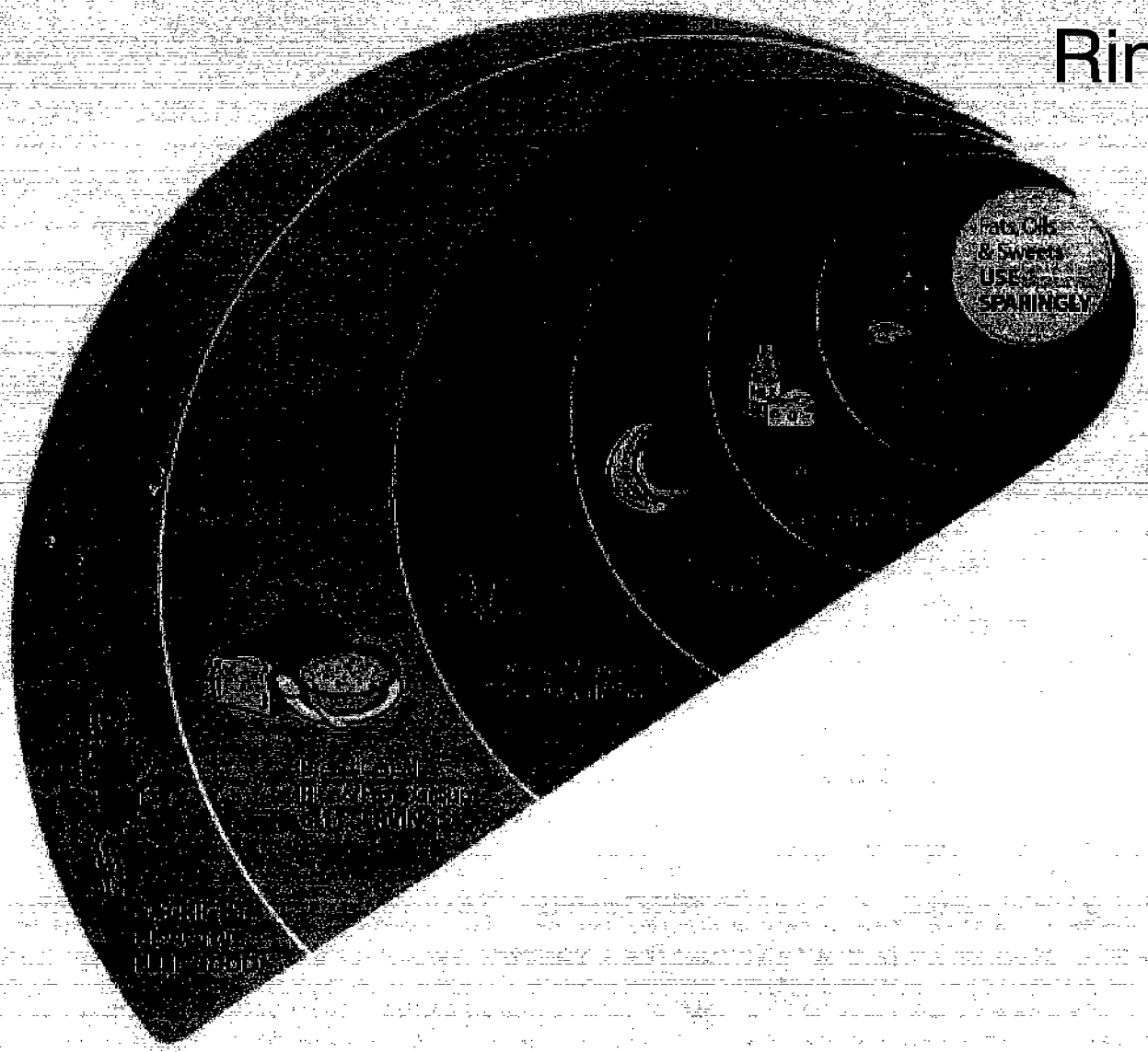
Rings



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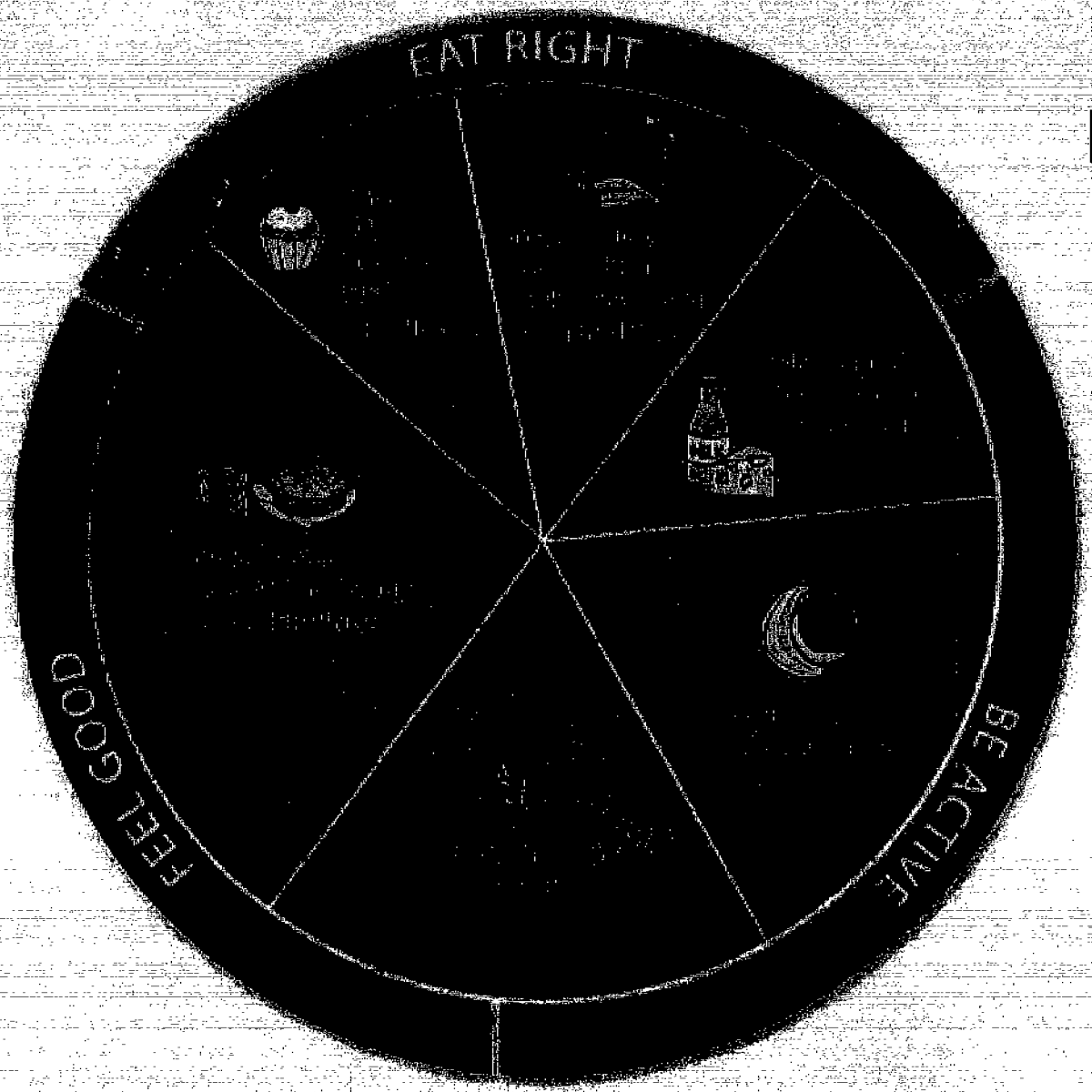
Pie



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III. Management Summary

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Management Summary:

Consumers expressed preference for two designs over the current Pyramid Guide. Two elements stand out as contributing to preference and better communication than the current Pyramid.

1. A more circular shape

Overall, consumers preferred a more circular graphic to the current Pyramid approach, as both "Rings" and "Pie" are significantly preferred with respect to all five preference measures over Current.

- Easier to understand
- More visually appealing
- Best explains what a healthy diet should include
- Has more impact on guiding food decisions
- Is more motivating to change your behavior
  - Rings significantly outperforms Pie on this one measure
- These are also the designs with the highest liking scores, and generally score as well or better than current on the 9 attributes.

2. The figure of the runner reinforces the notion of physical activity

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IV. Preference Measures

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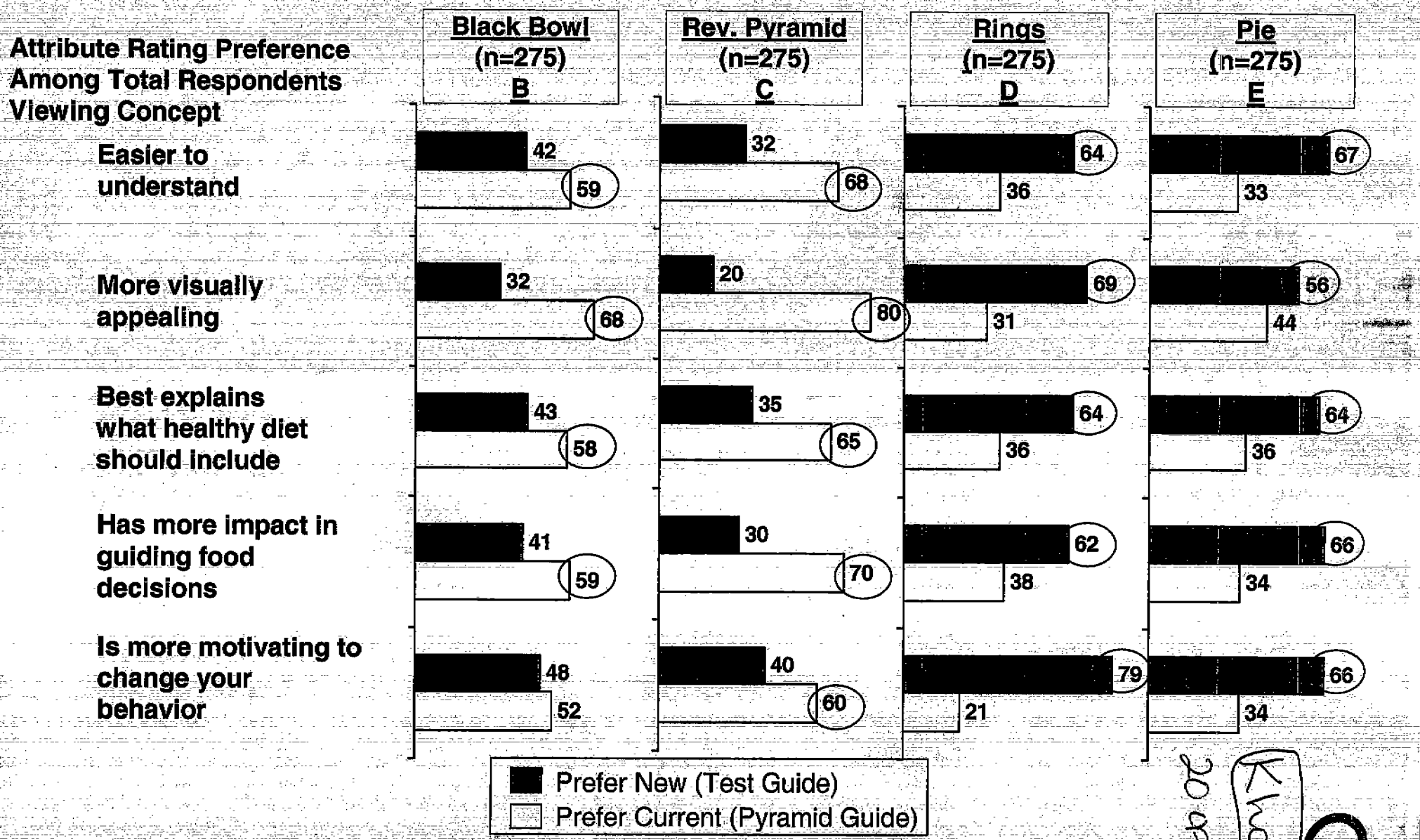
'Rings' and 'Pie' are significantly preferred over Current Food Guide Pyramid on all key attributes



Q.7 You will now be shown another design of a Food Guide, along with the one you have already seen. Choose the Food Guide design that is best described by each of the statements below.

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V. Monadic Evaluations

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With exception of 'Black Bowl', Consumers expressed significantly higher levels of liking for the alternate designs over Current Pyramid

Overall Liking	Black Bowl	Revised Pyramid	Rings	Pie	Total Current
Base: Total Respondents	(200)	(200)	(200)	(200)	(300)
	%	%	%	%	%
	A	B	C	D	E
Like Extremely/Very Well	**29**	**38^{AE}**	**42^{AE}**	**40^{AE}**	**30**
Like Extremely Well	6	7	7	9	6
Like Very Well	23	31^{AE}	35^{AE}	31^{AE}	24
Neither Like Nor Dislike	61^{C}	55	52	56	56
Dislike Very/Extremely Much	**10^{D}**	**7^{d}**	**7^{d}**	**3**	**14^{BCD}**
Dislike Very Much	8^{D}	5^{d}	6^{d}	2	13^{aBCD}
Dislike Extremely Much	2	2	1	1	1
Mean	3.2	3.4 AE	3.4 AE	3.5 AE	3.2
Standard Deviation	.75	.76	.74	.72	.78
Standard Error	.05	.05	.05	.05	.04

Among equal representation of Test and Current (n=200)

Q.3 Which one phrase below best describes how much you like or dislike the look of THIS Food Guide shown?

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'Pie' and 'Rings' are comparable or better than other design, but Rings wins on communicating the value of physical activity.

The fact that the circle shapes score comparably or better than the Current Pyramid, an already well established graphic with 80% recognition, serves as further testament to the strength of the alternative graphic designs.

Attribute Ratings – Top Box Summary
Among Viewers of each design

	Black Bowl A	Rev Pyramid B	Rings C	Pie D	Current E
A guide to help you improve your food choices	29	35[a]	36[a]	38[A]	38[A]
Easy for kids to understand	33[B]	20	30[B]	34[B]	29[B]
Gives good direction on how to put together a well balanced diet	26	30	37[A]	40[AB]	35[A]
Suggests that you monitor your caloric intake	12[b]	8	16[Bd]	10	12[b]
Suggests that physical activity is important	22[E]	19[E]	49[ABDE]	24[E]	13
Tells you how much to eat of each food group in comparison to other foods in diet	35	33	44[aB]	41[b]	43[aB]
Encourages physical activity in comb with balanced diet	19[E]	17[e]	45[ABDE]	19[E]	12
Shows the importance of including a variety of foods everyday	39	42	52[AB]	45	50[Ab]
Shows that all foods fit into a healthy diet	31	27	41[ABE]	38[aB]	33

Among equal representation of Test and Current (n=200)

Q.6 Below are a number of characteristics, which may or may not describe the graphic you are viewing. Please indicate how much you agree or disagree that each characteristic describes the graphic.

(Balanced Lifestyle Guide Project.ppt)

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	Black Bowl A	Revised Pyramid B	Rings C	Pie D	Current E
Is a guide to help you improve your food choices	28.7	35.2a	35.7a	38.1A	37.6A
Mean	3.8	4.1A	4.0a	4.1Ae	4.0a
Standard Deviation	1.04	0.92	1	0.92	1.07
Standard Error	0.07	0.06	0.07	0.06	0.06
Would be easy for kids to understand	32.5B	19.9	29.6B	34.0B	28.7B
Mean	3.8	3.7	3.9B	4.0ABE	3.8
Standard Deviation	1.19	1	1.05	0.93	1.1
Standard Error	0.08	0.07	0.07	0.07	0.06
Would give good direction on how to put together a well balanced diet	26.2	30.2	36.5A	39.7AB	35.3A
Mean	3.7	3.9	3.9a	4.0ABE	3.8
Standard Deviation	1.06	1.08	1.13	1.05	1.17
Standard Error	0.07	0.08	0.08	0.07	0.07
Would suggest that you monitor your caloric intake	12.2b	7.8	15.7B d	10.3	11.8b
Mean	2.9E	2.9e	3.0E	3.0E	2.7
Standard Deviation	1.21	1.21	1.35	1.22	1.33
Standard Error	0.09	0.09	0.09	0.09	0.08
Would suggest that physical activity is important	21.7E	19.4E	49.0ABDE	24.2E	12.9
Mean	3.2E	3.2E	4.3ABDE	3.4bE	2.2
Standard Deviation	1.31	1.39	0.85	1.31	1.43
Standard Error	0.09	0.1	0.06	0.09	0.08

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	Black Bowl A	Revised Pyramid B	Rings C	Pie D	Current E
Would tell you how much to eat of each food group in comparison to other foods	35.4	33.4	44.0aB	41.2b	43.0aB
Mean	4	4	4.1ab	4.1a	4.1
Standard Deviation	0.99	0.96	1.01	0.95	1.06
Standard Error	0.07	0.07	0.07	0.07	0.06
Would encourage physical activity in combination with a balanced diet	19.2E	16.6e	44.9ABDE	19.2E	11.5
Mean	3.2E	3.2E	4.2ABDE	3.3E	2.2
Standard Deviation	1.28	1.36	0.89	1.26	1.38
Standard Error	0.09	0.1	0.06	0.09	0.08
Would show the importance of including a variety of foods everyday	38.9	41.6	51.8AB	45	49.5Ab
Mean	4.1	4.2	4.4ABDE	4.3A	4.3A
Standard Deviation	0.94	0.86	0.75	0.84	0.92
Standard Error	0.07	0.06	0.05	0.06	0.05
Would show that all foods, in moderation, fit into a healthy diet	30.6	27.4	40.9ABE	38.2aB	32.7
Mean	3.9e	3.9e	4.2ABE	4.1aE	3.8
Standard Deviation	0.96	0.94	0.89	0.96	1.16
Standard Error	0.07	0.07	0.06	0.07	0.07

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VI. Appendix

Awareness of Food Guide

Base: Total Respondents	Total	GENDER: Males	GENDER: Females	PRESENCE OF KIDS: With Kids	PRESENCE OF KIDS: Without Kids
	% A	% B	% C	% D	% E
Black Bowl	(200) 34	(45)* 34	(155) 34	(137) 36	(63) 31
Revised Pyramid	(200) 60	(44)* 53	(156) 62	(133) 64[e]	(67) 52
Rings	(200) 31	(42)* 34	(158) 30	(134) 27	(66) 38[d]
Pie	(200) 41	(44)* 39	(156) 42	(128) 40	(72) 43
Current Pyramid	(300) 79	(63) 66	(237) 82	(193) 78	(107) 80

* Caution small base

Q.2 Have you ever seen THIS Food Guide before?

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Where Have Seen Food Guide

	Total	GENDER Males	GENDER Females	PRESENCE OF KIDS With Kids	PRESENCE OF KIDS Without Kids
Base: Total Respondents	(1,100)	(239)	(861)	(726)	(374)
	%	%	%	%	%
	A	B	C	D	E
From nutrition education	26	23	27	27	25
Food magazines	23	15	25[B]	24	20
Through school/in my child's school	20	14	22[B]	23[E]	13
Fitness magazines	18	16	19	17	20
On packages of food	15	12	16[b]	14	17
Television programs	14	13	15	15	14
Diet books	13	10	14[B]	13	15
Cookbooks	12	9	13[b]	12	11
Internet informational websites	11	12	11	10	12
Through food assistance program	9	5	11[B]	12[E]	5
Newspapers	6	5	6	5	7[d]
On beverages	1	2[C]	1	1	2[d]
Other	5	5	5	5	5

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Q.2 Where have you seen THIS Food Guide before?
Lower case letter – significantly higher than column indicated at the 80% level of confidence
Capital letter – significantly higher than column indicated at the 90% level of confidence

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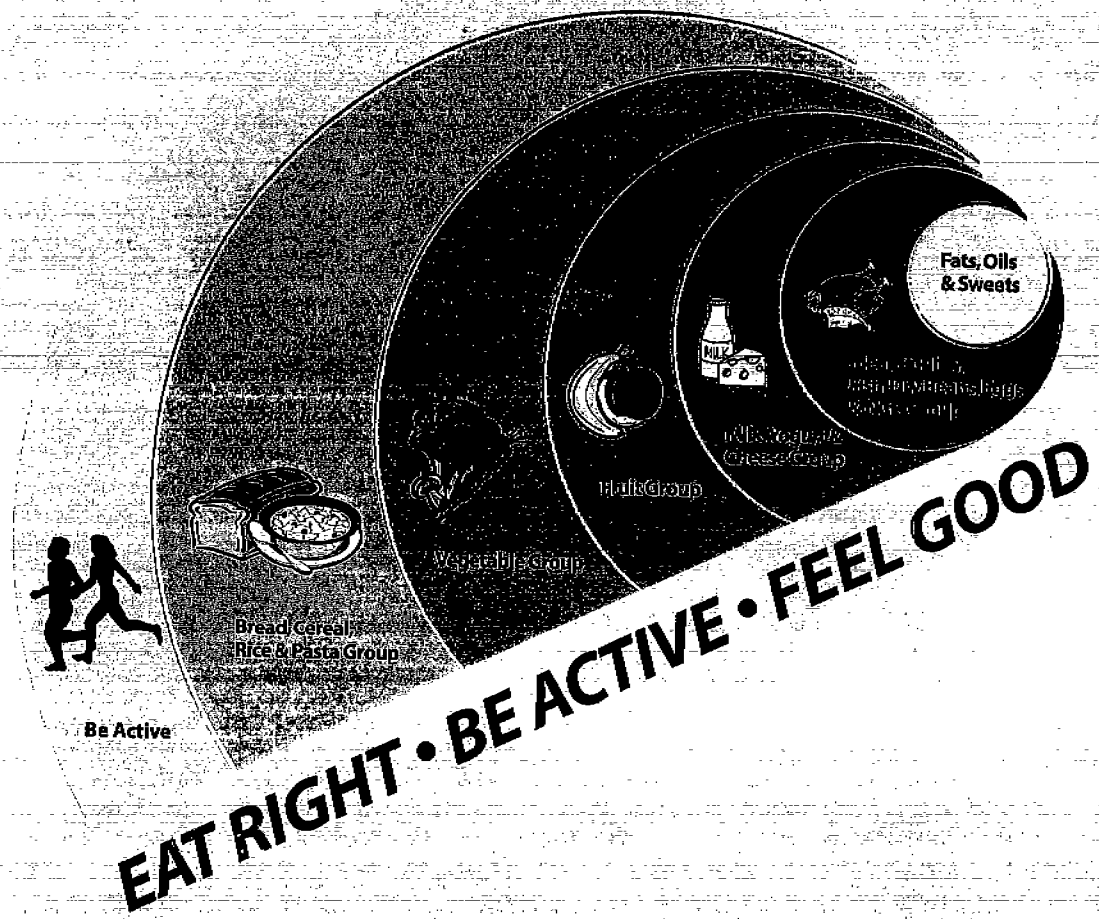
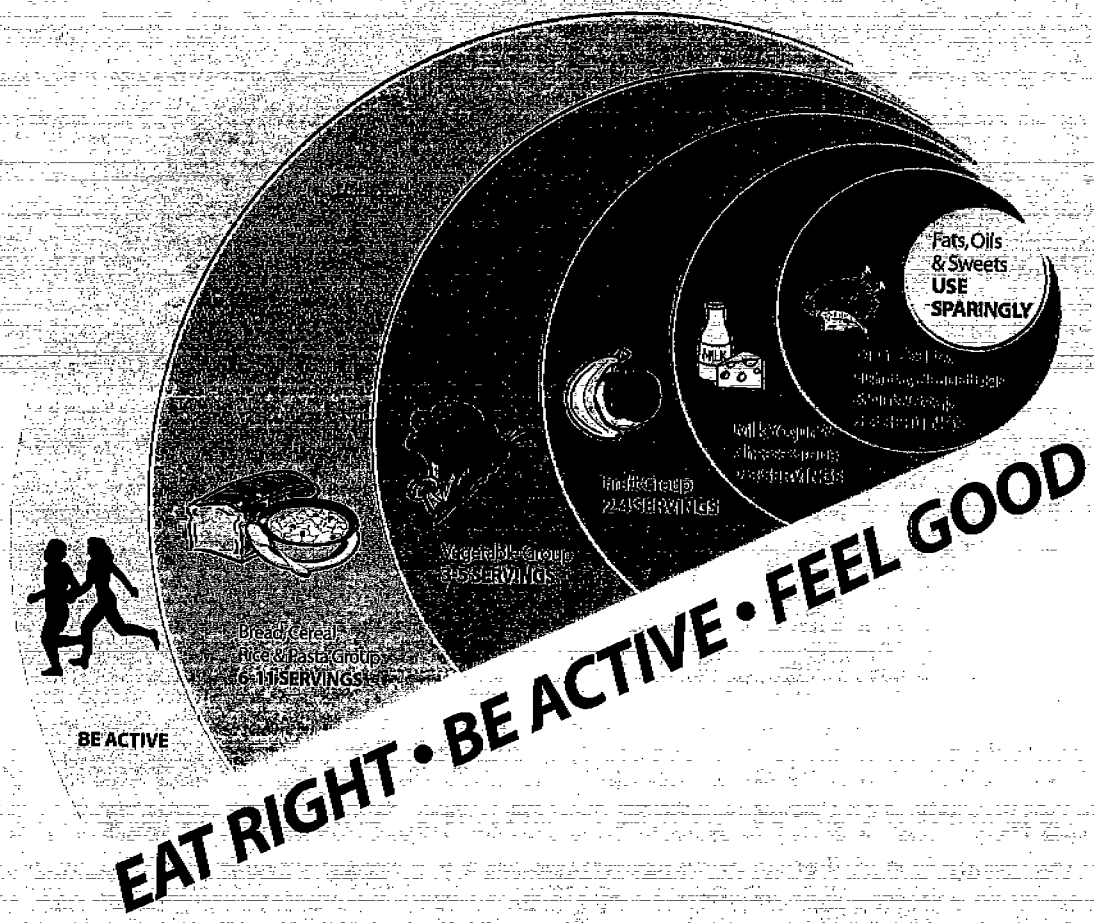
(Balanced Lifestyle Guide Project.ppt)

ATTACHMENT B-1



ATTACHMENT B-2

B-2



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THE SUGAR ASSOCIATION

AUG 27 2004

August 27, 2004

Original copy sent via courier.

Briscoe 1 of 2

Dr. Eric Hentges
Food Guide Pyramid Reassessment Team
USDA Center for Nutrition Policy & Promotion
3101 Park Center Drive
Room 1034
Alexandria, VA 22302

RE: Comments/Suggested Revisions to the Food Guide Pyramid

Dear Dr. Hentges:

While the Sugar Association has already submitted a set of formal comments, I would like to share a couple of quick suggestions for the Center for Nutrition Policy and Promotion to consider in its effort to create a science-based, consumer-friendly tool to communicate and reflect the updated Dietary Guidelines to all Americans in their battle to maintain a healthy lifestyle. Attached is a graphic which includes the suggested revisions outlined below.

1) I would recommend changing the title from "Food Guide Pyramid" to "Lifestyle Pyramid." This name change reiterates the importance of energy in versus energy out in the pursuit of a long, productive and active life.

2) I would recommend the actual graphic reflect what the science clearly supports that physical activity is half the equation in maintaining a healthy lifestyle. Visually reinforcing the importance of physical activity as part of a "Lifestyle Pyramid" will help provide consumers and children alike the need to include 30-60 minutes of activity in their daily schedules.

These recommendations would improve on the existing success that the Food Guide Pyramid has achieved in consumer recognition. It would be science-based. And it would truly reinforce the critical importance of physical activity in our daily lives.

Thank you and CNPP for opening up the process to allow for shareholder input and participation in updating and making the Pyramid a better tool to help consumers with nutritional decisions and educating them on healthy lifestyle choices .

Sincerely,

Andrew Briscoe III

Andrew C. Briscoe III
President & CEO
The Sugar Association

Briscoe 2 of 2

Lifestyle Pyramid

KEY
- ☐ Fat (naturally occuring and added)
- ☑ Caloric Sweetener (natural and formulated)

Physical activity is essential for maintaining weight and a useful component of weight control.

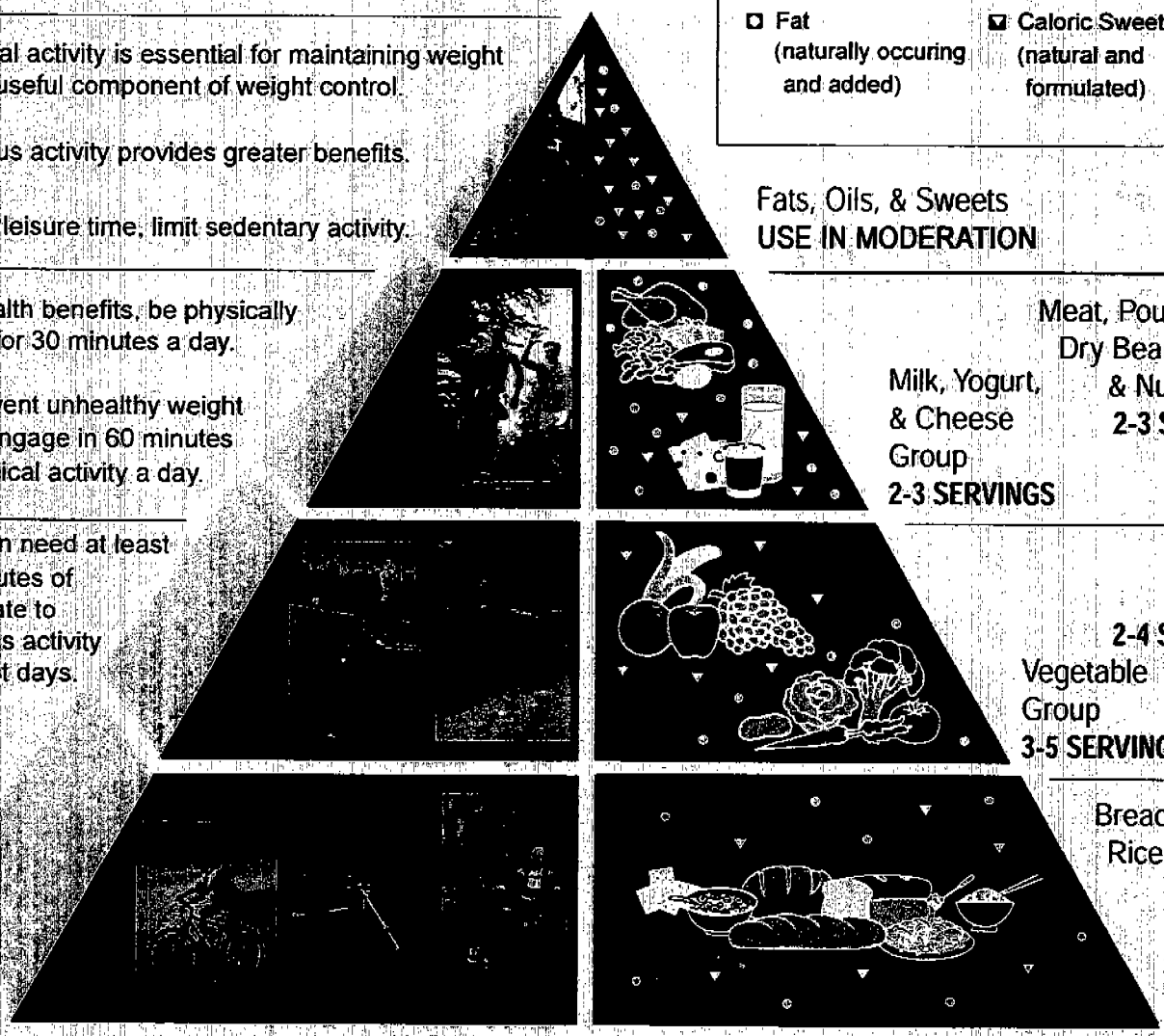
Vigorous activity provides greater benefits.

During leisure time, limit sedentary activity.

For health benefits, be physically active for 30 minutes a day.

To prevent unhealthy weight gain, engage in 60 minutes of physical activity a day.

Children need at least 60 minutes of moderate to vigorous activity on most days.



Fats, Oils, & Sweets
USE IN MODERATION

Meat, Poultry, Fish, Dry Beans, Eggs, & Nuts Group
2-3 SERVINGS

Milk, Yogurt, & Cheese Group
2-3 SERVINGS

Fruit Group
2-4 SERVINGS

Vegetable Group
3-5 SERVINGS

Bread, Cereal, Rice, & Pasta Group
6-11 SERVINGS

Source: U.S. Department of Agriculture/U.S. Department of Health and Human Services

A healthy lifestyle involves energy in vs. energy out. To achieve this goal, a variety of foods should be consumed in moderation and physical activity must be part of a daily schedule.

Wegmans

AUG 27 2004

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August 26, 2004

Food Guide Pyramid Reassessment Team
USDA Center for Nutrition Policy, and Promotion
3101 Park Center Drive, Room 1034
Alexandria, VA 22302

RE: **Comments on Proposed Changes to USDA Food Guide Pyramid**

Wegmans Food Markets was the first food company in the nation to use the Food Guide Pyramid on food packaging. We have also used the Food Guide Pyramid as the basis for our "Good Food Tours" for 4th graders involving over 126,000 students since 1992. Based on our experience, we recommend that the revised Food Guide Pyramid maintain the current shape.

We understand that the Dietary Guidelines Advisory Committee will recommend that consumers eat at least **5 to 13** servings of fruits and vegetable a day, depending on their calorie needs. There is no debate about the health benefits associated with fruits and vegetables and we strongly support the recommendation for increasing consumption to at least **5 to 13** servings. At the same time, we believe that many consumers do not know how to apply the dietary guidelines to their specific needs and encourage the development of specific guidance for specific calorie needs.

Wegmans has experience educating consumers and employees to the need to "Strive for Five" servings of fruits and vegetables a day. We have been impressed by the enthusiasm of over 2,000 employees who counted fruit and vegetable servings as part of our "Eat Well, Live Well" 2004 challenge. Yet many of our employees didn't know what counts as a serving. We encourage USDA to do much more to educate consumers on what constitutes a serving.

Lastly, given the increased emphasis on fruits and vegetables, any changes to the Food Guide Pyramid must reflect this and feature fruits and vegetables more prominently in the graphic.

Thank you for the opportunity to offer these comments.

Sincerely,

David Corsi

David Corsi
V.P Produce Merchandising
Wegmans Food Markets

Dow AgroSciences LLC

Washington, DC

rec'd 8/27/04 DH

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August 27, 2004

Dow AgroSciences

Food Guide Pyramid Reassessment Team
USDA Center for Nutrition and Science Policy and Promotion
3101 Park Center Drive
Room 1034
Alexandria, VA 22302

Dear Food Guide Pyramid Reassessment Team:

Based on substantial scientific evidence, Americans need to reduce both saturated and trans fat simultaneously in their diets. Further, research shows that substituting non-hydrogenated unsaturated fats for saturated and trans fats in the diet can reduce coronary heart disease risk (1,2).

Proposed Core Messages
We support Food Guidance System proposed core messages intended to "lower chronic disease risk by lowering intake of saturated fats, trans fats, cholesterol, [etc.]." Moreover, a substitution message that advises consumers to use unsaturated fats in place of trans and saturated fats would be more instructive.

For example, the most recent American Heart Association Dietary Guidelines 2000 advise consumers to, "Limit foods high in saturated fat and cholesterol; and substitute unsaturated fat."

Food Guide Pyramid Graphic
The Food Guide Pyramid graphic should make clear that non-hydrogenated, unsaturated oils are essential to the diet and that they should be consumed in small amounts throughout the day. Currently, all fats and oils are lumped together at the top of the pyramid in the "use sparingly" section, whereas healthful unsaturated oils should appear near the bottom of the pyramid, or if another graphic is used, they should appear in the "consume regularly" section. A weight-loss study conducted at Harvard School of Public Health showed that dieters actually lost more weight, kept it off, and consumed an extra two servings of vegetables a day when they could use healthy oils for dressings, stir fries, etc. (3)

Reduction of Trans and Saturated Fats in Food Supply—Natreon™ Canola Oil
Natreon is a new, improved canola variety that is naturally stable and can decrease trans and saturated fats in the food supply today. Like traditional canola oil, Natreon contains about 7 percent saturated fat, the lowest of any vegetable oil. Natreon has over 70 percent monounsaturated fat for stability and has a higher 18:3 content than most of the partially hydrogenated oils it can replace. The finished product contains less than 1 percent trans, which is acquired during processing.

Natreon is competitively priced to most non-hydrogenated oil alternatives and has equal or superior functional applications for food service and food manufacturing.

Thank you for your consideration.

Sincerely,

Bradley A. Shurdut
Global Director, Public & Government Affairs, Biotechnology
Dow AgroSciences

Shurdut 2 of 2

References:

1. Ascherio A, Willett, WC. Trans fatty acids and coronary heart disease. *New England Journal of Medicine*. 1999;340:1994-8.
2. Hu FB, Willett WC. Optimal diets for the prevention of coronary heart disease. *Journal of the American Medical Association*. 2002; 288(20): 2569-2578.
3. McManus K, Antinoro L, Sacks F. A randomized controlled trial of a moderate-fat, low-energy diet compared with a low-fat, low-energy diet for weight loss in overweight adults. *International Journal of Obesity*. 2001;25:1503-1511.

AUG 27 2004

STATE OF FLORIDA
DEPARTMENT OF CITRUS
LAKELAND, FLORIDA

100% PURE FLORIDA

DAN L. GUNTER
EXECUTIVE DIRECTOR
Phone:
Fax:

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ANDREW R. TAYLOR
CHAIRMAN
FLORIDA CITRUS COMMISSION

August 24, 2004

Food Guide Pyramid Reassessment Team
USDA Center for Nutrition Policy and Promotion
3101 Park Center Drive, Room 1034
Alexandria, VA 22302

To Whom It May Concern:

The Florida Department of Citrus (FDOC) is a governmental state agency responsible for advertising, marketing, regulating and promoting Florida citrus products throughout the world, as well as conducting and promulgating research on behalf of Florida citrus growers and the citrus industry.

The Florida Department of Citrus endorses the Food Guide Pyramid Reassessment Team's goal of (1) increasing consumer awareness of the new science-based nutrition guidance, (2) encouraging consumers to make positive changes in their food choices, and (3) educating consumers about food choices and amounts to consume. The FDOC strongly supports the new food guidance system and believes that the accompanying materials should continue to emphasize that only 100% fruit juices should be considered a fruit serving. We also concur that core messages promoting nutrient-dense food choices as a means to increase the intake of vitamins, minerals, fiber and other key nutrients must remain central to the goal. The FDOC applauds the Administration's aggressive approach to devise recommendations that continue to emphasize choosing carbohydrates that "maximize nutrient value per calorie" and differentiating between the preferability of fruit and fruit juices without added sugars. Studies conducted by the Center for Science in the Public Interest show that orange juice and grapefruit juice rank number 1 and number 2, respectively, as being the most nutritionally dense juices an individual can drink. An 8-oz. glass of orange juice is fat free, cholesterol free, sodium free, provides over 100% of recommended daily vitamin C, is a good source of folate, potassium, and thiamin and also provides magnesium, riboflavin, and niacin. An 8-oz. glass of grapefruit juice is fat free, cholesterol free, sodium free, an excellent source of vitamin C, and provides folate, potassium, thiamin, and magnesium.

Numerous studies have been conducted on the nutrients found in citrus fruit, including orange juice, and the role these nutrients may play in reducing the risk of such diseases as cancer, heart disease, birth defects and stroke when part of a low-fat diet rich in fruits and vegetables. And, there is also a growing body of medical research that supports the health benefits of antioxidants such as vitamin C, as well as folate, dietary fiber (including soluble fiber), and other vitamins and minerals found in Florida citrus.

Gunter 2 of 2

We also know that orange juice is synonymous with breakfast. Studies consistently show that breakfast eaters demonstrate increased performance in work and school, maintain a better nutritional profile and fight illness, among other health benefits. Simply put, kids who eat breakfast perform better in school. They're also less likely to be anxious, depressed, or irritable, according to the American Dietetic Association. Recent studies show individuals who eat a healthy breakfast are less likely to be obese than individuals who skip breakfast.

Consumer understanding of the revised Pyramid graphic is essential. In the fruits category graphics, we recommend the guidance system include a statement of "100% fruit juice" or a visual of a glass of 100% fruit juice. Since orange juice is the most nutrient dense 100% fruit juice, we advocate including a glass of orange juice in the new Food Guidance System, but regardless, feel that consumers need a point of reference to understand that one serving of 100% fruit juice = 1 fruit serving. The current Food Guide Pyramid graphic does not clearly illustrate this point.

Studies show consumers want to eat more healthfully. We propose that the educational and motivational components provide more comprehensive information in identifying specific fruit juices and foods that are nutritionally dense, and based on studies and sound science, list the potential health benefits that one might derive from daily consumption.

Again, we commend the Reassessment Team's efforts in providing information to consumers that reflects sound science and promotes a healthy lifestyle. The Florida Department of Citrus looks forward to working with you as you finalize the food guidance system for Americans. Additionally, we look forward to using the new Food Guide Pyramid language and graphics, whenever possible, throughout our marketing efforts, including public relations, Internet, advertising and promotions.

Sincerely,

Dan L. Gunter

Dan L. Gunter
Executive Director

CALIFORNIA Walnuts

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AUG 27 2004

August 26, 2004

Food Guide Pyramid Reassessment Team
USDA Center for Nutrition Policy and Promotion
3101 Park Center Drive, Suite 1034
Alexandria, Virginia 22302

Dear Committee Members:

On behalf of the California Walnut Commission, I am pleased to provide comments to the USDA Center for Nutrition Policy and Promotion and the Food Pyramid Reassessment Team. As mentioned in the Federal Register, Vol. 69, No. 133, dated July 13, 2004, we would like to offer comment on the areas requested.

A. Advantages and disadvantages of retaining current shape for graphic and other potential shapes to use as a representative of the overall Food Guidance system

Consumers are already familiar with the food pyramid graphic. We feel the most important aspect to address is updating the content of the graphic to reflect a more balanced diet rich in whole foods, such as walnuts, that provide essential nutrients. As a registered dietitian, I feel the credibility that has been built around the Food Pyramid graphic would most likely suffer if a new graphic was introduced.

B. Usefulness of the proposed strategies to highlight both motivational/awareness and educational messages

Messages must be consistent and clear. Since the pyramid is used as a guide for school food service and federal nutrition programs, whole unprocessed foods that are readily available should be positively reflected. In addition, a variety of food sources must be shared for specific nutrients. For example, for consumers to receive adequate amounts of alpha linolenic acid (ALA) as recommended by the National Academy of Sciences DRI report of September 2002 suggesting walnuts, in addition to marine sources and canola based soft margarines, as a rich source provides an important variety of choices for consumers who may otherwise not get this important nutrient.

California Walnut Commission

Sacramento, California • **Telephone** **FAX**

E-mail: • **Web Site: www.walnuts.org**

Sloan 2 of 2

C. Advantages and disadvantages of the plan to individualize guidance in contrast to "generalized" messages.

Consumers are different; therefore, individual guidance is key. Proper nutrition education materials prepared for health professionals and nutrition educators who are the gatekeepers of consumer messaging will be vital.

D. Advantages and disadvantages of the planned focus on core messages in contrast to use of a graphic to representative educational messages.

A graphic is crucial for simple messaging, and more specifics are needed for those consumers who want more information, as well as for the health professional and educators who convey these messages.

E. Key components for effective interactive educational tools.

Messages once again must be consistent and not misleading. A variety of foods must be emphasized for all nutrients that are not based on food consumption patterns of the past. Emphasis on what we should be eating is necessary, not on what we have been eating.

The science has shown what constitutes a healthy diet, i.e., whole grains, fruits and vegetables, nuts such as walnuts for alpha linolenic acid, lean protein, and calcium sources, as well as proper hydration and daily exercise.

F. Channels of delivery for the Food Guidance system.

Consistent use of the Food Guide Pyramid and US Dietary Guidelines by food companies, nutrition education programs, and school food service will be helpful in getting the message across to all consumers. Hopefully, there can be harmony and not dissension among corporations and governmental offices.

The California Walnut Commission appreciates the opportunity to provide comment to the USDA in regard to the Food Guide Pyramid revisions. Thank you for your consideration.

Sincerely,

Carol Berg Sloan RD.

Carol Berg Sloan, RD
Consultant
California Walnut Commission

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American Cancer Society

Food Guide Pyramid Reassessment Team
USDA Center for Nutrition Policy and Promotion
3101 Park Center Drive
Room 1034
Alexandria, VA 22302

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Dear Colleagues:

On behalf of the American Cancer Society, I would like to thank you for the opportunity to respond to proposed changes in the Food Guide Pyramid. The Society, like the United States Department of Agriculture (USDA), is committed to improving the nutrition and physical activity of all Americans because of the proven health benefits and the corresponding reduction in cancer risk.

The Food Guide Pyramid is a key communication tool used to educate consumer and influence behavior and we appreciate the opportunity to provide input into the review process. While we support the ongoing use of the pyramid shape to guide consumers in making healthy food choices, we do feel the following issues need to be addressed:

- The Pyramid must convey the concept of weight control and physical activity as important components of a healthy lifestyle, in addition to food choices. To this end, consideration should be given so that the name of this newly-revised tool reflects these additional components.

- Within each food group, emphasis must be placed on nutrient quality, and icons should be used to depict those healthier choices. Whole grains need to be distinguished from and emphasized over refined or processed grains; whole vegetables and fruits should be emphasized over juice; starchy vegetables should be included within the grains group; lean protein sources should be emphasized over those higher in saturated fat; sources of plant oils and "healthy fats" should be emphasized over other fat sources.

- The Pyramid should continue to reflect foods and nutrients to be consumed infrequently, including saturated fat, added sugars and refined grains.

We look forward to continuing our collaborative efforts to achieve our mutual goals of improving the public's health.

Sincerely,

Colleen Doyle, MS, RD
Director, Nutrition and Physical Activity

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NATIONAL DAIRY COUNCIL® 290

MANAGED BY
DAIRY MANAGEMENT INC™

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August 26, 2004

Food Guide Pyramid Reassessment Team
USDA Center for Nutrition Policy and Promotion
3101 Park Center Drive, Room 1034
Alexandria, VA 22302

FR Docket No. 04-15710 Center for Nutrition Policy and Promotion; Notice of Proposal for Food Guide Graphic Presentation and Consumer Education Materials; Opportunity for Public Comment

Dear Sir or Madam:

The NATIONAL DAIRY COUNCIL® (NDC) submits the following comments on the docket referenced above.

The NDC is an organization that initiates and administers nutrition research, develops nutrition programs, and provides information on nutrition to health professionals and others concerned about good nutrition. The NDC has been a leader in nutrition research and education since 1915. Through its affiliated Dairy Council units, the NDC is recognized throughout the nation as a leader in nutrition research and education.

We commend the USDA and HHS for employing a science-based approach to develop nutrition guidance that will meet the current and future health and nutrition needs of Americans.

We appreciate the opportunity to provide comments on the proposal for Food Guide Graphic Presentation and Consumer Education Materials. To better understand consumer perspectives on food guidance the NDC conducted a study among 1,000 consumers from July 29 – August 5, 2004. The results are incorporated into these comments.

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A. Advantages and disadvantages of retaining current shape for graphic and other potential shapes to use as a representative of the overall Food Guidance System

Research demonstrates the **Food Guide Pyramid with the five food groups is the most appropriate symbol for national nutrition guidance and education [1].** The Dietary Guidelines Advisory Committee recently concluded that individuals should choose from within and among the five food groups [2].

New consumer research shows most Americans (60 percent) are extremely, very or somewhat familiar with the Food Guide Pyramid, yet most (60 percent in the survey said "not at all") do not use it to influence their daily food intake [1].

There are advantages to building on consumer familiarity with the pyramid shape. Introducing a new shape might cause more confusion among consumers, further delaying the adoption of positive eating behaviors that are urgently needed to address the needs of overweight but undernourished Americans who may also have other health problems [3]. Extensive consumer research prior to the release of the Food Guide Pyramid determined it was the best graphic to convey proportionality, variety, and moderation [4]. Based on consumption data, these continue to be important concepts for people to understand.

When used alone (as it is on food packages and educational materials), the proposed new graphic, envisioned as a simplified symbol or "brand" to represent the system but not provide detailed information, may not help consumers make healthy food choices. **There are advantages to retaining the pyramid shape and the five food groups within it.** As stated above, the shape has equity among most Americans, and while most don't use the Food Guide Pyramid to influence their daily food intake, there are advantages to building on the group of Americans who do (39 percent said often or occasionally) [1]. The five food groups provide a simple guide for Americans to follow, based on usual food patterns, so they get the nutrients they need each day for good health and nutrition. A new symbol without the basic guidance of food groups may further confuse rather than help Americans.

B. Usefulness of the proposed strategies to highlight both motivational/awareness and educational messages

Consumers need reinforcement at multiple touch points throughout the course of the day to help them choose foods among the five food groups and achieve energy balance.

American consumers may not be motivated to respond to a simple graphic without context information, even if it is in the recognizable pyramid shape. There will be educational moments with the graphic alone. **By incorporating simple educational messages into the pyramid graphic, such as one target number of servings instead of a range of servings for each food group, it could clearly and immediately communicate core nutrition guidelines for Americans.** This is extremely important, as the symbol may continue to be used without context on food packages and in educational outreach.

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Previous NDC comments outlined the benefits of harmonizing the serving sizes of the Food Guide and Nutrition Facts label to reduce consumer confusion [5]. The Nutrition Facts labels of food packages use 2,000 calories as a reference point. New research shows the majority of Americans (57 percent) claim to know exactly or approximately how many calories they should take in per day based on their gender and activity level [1]. Therefore, most Americans would likely relate to a single reference point of 2,000 calories for the symbol, and understand that they should eat more or less of the recommended serving for each food group based on their individual needs.

C. Advantages and disadvantages of the plan to individualize guidance in contrast to "generalized" messages.

For the minority of Americans who require or want more customized guidance, it will be especially important to motivate and educate them using the individualized tools proposed. The Pyramid symbol or **"brand" could be "co-branded" with customized individual pyramids that may be more relevant to the individual audience. This customized guidance could be individualized to reflect calorie intake levels, age and sex, but also for other key factors that may drive food choices more than health: taste and cultural preferences, convenience and cost. The individualized Pyramids could then share essential food guidance core messages**

When designing individualized guidance, it may be important to consider that consumers today are time-crunched and looking for simple solutions to make their lives easier, including the choices they make about nutrition. The current proposal would require that a consumer take four steps to get specific recommendations. **It will be critical to conduct extensive testing of the proposed package of educational tools – symbol plus slogan plus core messages plus individualized/customized guidance – among representative U.S. households to ensure that consumers will truly implement the four steps, and that it will fit within the time and in the manner in which they currently plan, purchase, and prepare foods.**

D. Advantages and disadvantages of the planned focus on core messages in contrast to use of a graphic to represent educational messages.

Core messages could help individuals make appropriate food choices and link together individualized pyramids or educational materials. These simple actionable core or generalized messages could contain enough information -- about food groups and target serving per food group, for instance -- to further help Americans make individual choices. An actionable message such as 3-A-Day of Dairy has been proven to be clear and understandable to consumers [6].

As stated in section B, a symbol with a single serving target number for each food group based on a 2,000 calorie diet represents educational opportunity. When combined with the proposed core messages, it can become an even more powerful public health message:

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- The core message about keeping calorie intake balanced with energy expenditure to prevent weight gain, promote weight loss, and /or maintain a healthy weight is important. As the Dietary Guidelines Advisory Committee recently concluded: **"Consuming three servings per day of milk and milk products can reduce the risk of low bone mass and contribute important amounts of many nutrients. Furthermore, this amount of milk product consumption is not associated with increased body weight. Therefore, the intake of three servings of no and lowfat milk products per day is recommended" [2]. This core message, and others like it, would fulfill one of the original purposes of the Food Guide Pyramid, which is to provide visual representation of the Dietary Guidelines [3].**

  In the case that this core message cannot be included due to time or space limitations, the inclusion of a specific serving recommendation for three servings of dairy in the symbol would accommodate for the missing message.

- The core message about promoting nutrient dense food choices to increase the intake of vitamins, minerals, fiber, and other key nutrients, especially those that are often low in typical diets is important. With an increased focus on making calories count, it's even more important for Americans to maximize their nutrient intake by choosing naturally nutrient rich foods first. Because of its total nutrient package, intake of milk and other dairy foods also improves the overall nutritional density of the diet and is a marker of a high-quality diet [7], particularly in women, older adults, children, and adolescents. **Therefore, a core message stating, "Choose nutrient-rich foods first, such as no and lowfat milk products, whole grains, colorful fruits and vegetables, and lean meats."**

Before implementation, it will be important to conduct consumer research to determine what symbol and messages really motivate, educate, and resonate with consumers.

E. Key components for effective interactive educational tools

The Internet is clearly an important channel for reaching consumers, and it provides the best "home" for individualized food guidance tools. Decisions about the most effective interactive tools may be best made by accessing those companies most experienced in creating the tools, in addition to case studies from successful online health, nutrition and dieting programs. NDC has had success in providing a range of nutrition education materials to health professionals and school educators.

F. Channels of delivery for the Food Guidance System

In addition to using the Internet as one of the key channels for delivering Food Guidance System elements, public-private partnerships like the Dietary Guidelines Alliance provide a great way to reach consumers. We are certain the USDA will successfully meet the challenge of providing reliable nutrition advice through the Food Guidance System. Upon this success, the NDC will work with industry and government groups to carry the

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Food Guidance messages to consumers through health professionals, media, schools, and in-store programs.

For more than 85 years the National Dairy Council has worked to advance the state of scientific knowledge on the role and value of dairy foods in promoting and enhancing human nutrition and health. Thank you for encouraging us to take an active role in the public process. We will continue to assist the USDA in any way possible to achieve results that will benefit the health and well being of all Americans.

Thank you for the opportunity to comment on these important issues.

Sincerely,

Gregory D. Miller, PhD, FACN
Senior Vice President
Nutrition & Product Innovation
National Dairy Council

Mollie Waller
Vice President
Nutrition & Health Promotion
National Dairy Council

REFERENCES:

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NATIONAL PORK PRODUCERS COUNCIL

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August 27, 2004

Food Guide Pyramid Reassessment Team
United States Department of Agriculture
Center for Nutrition Policy and Promotion
3101 Park Center Drive, Room 1034
Alexandria, VA 22302

To Whom It May Concern:

The National Pork Producers Council (NPPC) and the National Pork Board (NPB) appreciate the opportunity to comment on the "Notice of Proposal for Food Guide Graphic Presentation and Consumer Materials" for the Center for Nutrition Policy and Promotion (CNPP).

Americans young and old have come to recognize the Food Guide Pyramid as the standard by which they should plan their meals. Therefore, we believe the CNPP should continue to use the Pyramid graphic, while further refining the supporting messages to improve the adoption of the Dietary Guidelines recommendations. We believe both generalized and audience-appropriate messages should be developed to support the Pyramid recommendations.

The CNPP has proposed several ways by which it plans to use the revised Pyramid as an educational tool. The "Educational Components" detailed in the public notice seek to use both interactive and print media to convey nutrition and health information to consumers. We applaud the use of the "Interactive personalized guidance tools" as an innovative method of helping consumers to individualize food intake based on personal preferences and nutritional needs.

In developing interactive personalized guidance tools, consideration should be given to practicality, flexibility and ease of compliance. With the variety of food choices available, any interactive tool needs to take into account the diversity of the American diet. As has been done in other programs of the CNPP, consumers must recognize that all foods can be part of a healthful diet, if eaten in appropriate amounts. Consumers taking advantage of the personalized tools should be provided information that details nutrient composition of foodstuffs and portion sizes. Consumers should also be directed to resources that can aide in physical fitness and general health awareness information.

Food choice combined with health education and physical activity can provide consumers with an effective means of combating obesity.

The number of Americans having access to the Internet and personal computers continues to increase, yet we hope that the CNPP recognizes that a sizeable portion of the population remains without this benefit. We urge the CNPP to enhance efforts to reach this important audience by cooperative programs with health organizations and the private sector using printed materials. For those people without access to the Internet, possible channels of delivery could include working with schools, Cooperative Extension, grocery and convenience stores, health professionals and food assistance programs. As organizations representing over 70,000 American pork producers, we hope to also add legs to the dissemination of messages about healthful eating.

The NPPC and the NPB thank you for this opportunity to share our comments. We look forward to the final Guidelines and anticipate the implementation with the hopes of improving the health and well-being of Americans.

Sincerely,

Harry Snelson, DVM

Ceci Snyder

Harry Snelson, DVM
Director, Science and Technology
National Pork Producers Council

Ceci Snyder, MS, RD
National Pork Board

National Nutrition Services

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Food Guide Pyramid Reassessment Team
USDSA Center for Nutrition Policy and Promotion
3101 Park Center Drive, Room 1034
Alexandria, VA 22302

Dear Reassessment Team:

The purpose of the Food Guide Graphic Presentation and supporting consumer education materials is to translate the 2005 Dietary Guidelines into a message that is easy for the public to understand. This is a daunting challenge. Our understanding of nutrition and health has exploded since the publication of the first U.S. Dietary Guidelines for Americans. Nutrition recommendations have become increasingly more complex. It is extremely difficult to translate such complicated guidelines into simple messages. You have undertaken an awesome task and I applaud your efforts.

As a registered dietitian, I have been invested in nutrition education for over twenty-five years. In the past five years, there has been an escalating interest in the health benefits of omega-3 fatty acids. The term omega-3 fatty acids has become familiar to may consumers and health professionals. However, the public is frequently confused about the information available through the media.

The preliminary report of the Dietary Guideline Advisory Committee, published in May 2004, strongly recommended two seafood meals per week. This recommendation will result in a very significant dietary change for the majority of Americans. Currently, the average seafood consumption in the U.S. is 15.6 pounds per year. This translates to 4 oz. per week or only one seafood meal per week. Americans will be advised to double their current intake.

Due to the significance of this recommendation, I would suggest the following:

1. Give seafood more prominence in the new or revised graphic presentation. The popular Mediterranean Food Guide Pyramid has devoted a distinct section to emphasize the importance of seafood. (See attached image). I would suggest that the U. S. consider a similar level of prominence.

Cindy Snyder, *MPH, RD, CD*
Shoreline, WA • csnyder.rd@verizon.net

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2. Provide supplemental information on seafood selection, handling and preparation to reduce public confusion.
The American public is intimidated by seafood. Consumers are unfamiliar with the variety of species available. They are not confident about proper selection and handling techniques. Many are afraid about seafood safety. Comprehensive seafood education materials will need to be created for the public either by CNPP or through an established partnership with national seafood organizations.

Health professionals also need seafood education. Like the American public, many health educators are also intimidated by seafood. USDA needs to provide resources and training for health educators so they can inspire their clients to increase seafood consumption. I would recommend that USDA either develop seafood education materials, provide an incentive for the seafood industry to develop the essential materials, or link to available industry materials.

I appreciate your consideration of these suggestions as you consider the Food Guide Graphic Presentation and supporting consumer education materials. Thank you for your tireless commitment to this very significant effort.

Respectfully submitted,

Cindy Snyder

Cindy Snyder, MPH, RD, CD

Cindy Snyder, *MPH, RD*
• *Shoreline, WA* • • csnyder.rd@verizon.net

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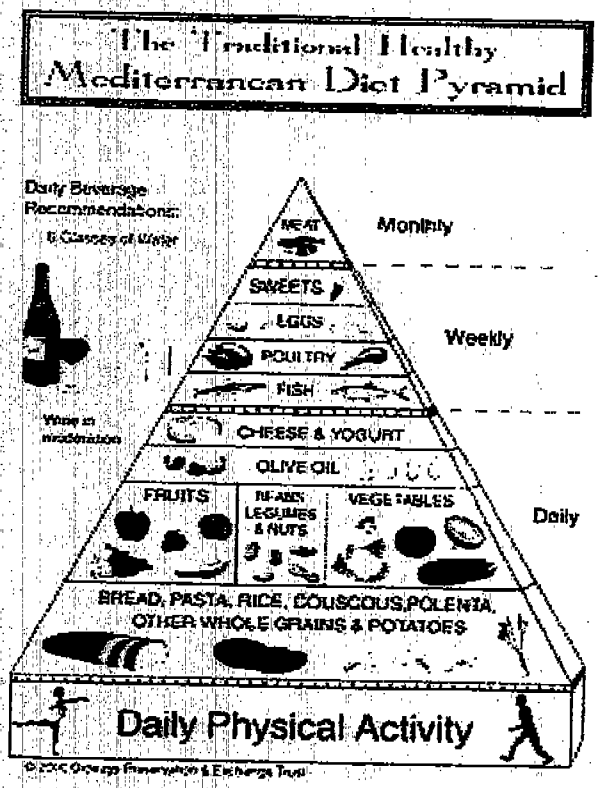
Attachment



***Cindy Snyder**, MPH, RD*

• *Shoreline, WA* • *Tel* • csnyder.rd@verizon.net

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PURDUE
UNIVERSITY

DEPARTMENT OF FOODS AND NUTRITION

August 26, 2004

Food Guide Pyramid Reassessment Team
USDA Center for Nutrition Policy and Promotion
3101 Park Center Drive
Room 1034
Alexandria, VA 22302

RE: Response to Federal Register Vol. 69, No. 133

Dear FGP Reassessment Team:

We are interns in the Coordinated Program for Dietetics at Purdue University, West Lafayette, Indiana. We would like to offer our comments to the issues outlined in Section VI. A., B., and C.

A.) We would like to keep the overall shape. The graphic is already ingrained in the public's mind. Changing the shape is not necessarily the problem, it is the education. In addition, in changing the shape, Dietetic professionals would loose credibility as the public would assume something was wrong with the old one, as some have speculated. One major overall change would be to remove the number of servings on all mass media venues entirely. This would leave no room for misinterpretation. The pyramid was not meant to stand alone in the first place. The pyramid would only be a symbol, which it should only be. By removing the number of servings, attention may be heightened as people would wonder where the servings went. It is our opinion that showing 6-11 servings from the bread, cereal, and grain group is too vague anyway and not useful. Showing the proportion of foods from each group is more useful for a symbol.

B.) New slogan examples: "It was not meant to stand alone" "My support system is at ...www...FGP.org"

The "support system" would give individuals more individualized information elsewhere. Avenues for the symbol and slogan would be television, billboards, posters in school, on buses, etc... The website should be user friendly and have an easy address. The government should buy the www.fgp.gov or www.foodguidepyramid.gov or www.pyramid.gov to simplify the use of complicated addresses and put all of the campaigns information on one site. A nationwide mailing could be used to launch the campaign. Simple ideas and general messages appropriate for the public would be variety, balance, moderation, and maintenance.

Individualized messages would only be used in education materials and the website. This would lead to less misinterpretation. The costs of these efforts could be offset with partnerships with different food groups. In addition, a comparison to medical costs if prevention is not implemented could justify costs.

C.) An advantage to individualization is personal recommendations. This should only be used in educational material and on the website. One useful piece in information to both the public and professionals would be a calculator to find out the number of servings a person needs from each FGP group where the public can enter their weight, height, activity level, gender, etc... and get their recommended energy intake (or range) and number of servings. This would end the confusion of the range of servings now used. A printable pyramid checklist would help consumers visually keep track of what they are eating.

Sincerely,

Krista Gray Suzanne Braun TusaRebecca Schap Dervise Ugursal
c/o Carol J. Boushey, PhD, MPH, RD

West Lafayette, IN

PURDUE
UNIVERSITY
DEPARTMENT OF FOODS AND NUTRITION

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August 26, 2004

Food Guide Pyramid Reassessment Team
USDA Center for Nutrition Policy and Promotion
3101 Park Center Drive
Room 1034
Alexandria, VA 22302

RE: Response to Federal Register Vol. 69, No. 133

Dear FGP Reassessment Team:

We are interns in the Coordinated Program for Dietetics at Purdue University, West Lafayette, Indiana. We would like to offer our comments to the issues outlined in Section VI. D., E., and F.

D. The graphic is a good idea because it is highly recognizable. It may be helpful to have information included with the graphic because many people will not go out of their way to look for more details. Perhaps food serving sizes could be on or around the graphic since serving sizes are a common source of confusion.

E. The interactive tool should be:

- easy to use
- colorful
- fun
- culturally appropriate
- account for diseases, conditions, and physical activity levels

Basic information for the interactive tool should provide:

- energy-levels,
- number of servings from food groups recommended based on information from person (e.g. height, weight, sex, physical activity level).

This information could be provided without having to open an account or enter diet recalls.

Planning and assessing information for the interactive tool should analyze the diet entered by the person (e.g. number of servings from different food groups and major nutrients), similar to current healthy eating index. In addition, practical

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recommendations should be included. For example, if an individual eats an excessive amount of fat and the primary source is high-fat meats, then a message could appear recommending lower-fat versions of meat or other options.

F. TV is probably the best form of media for delivering information about the Food Guide Pyramid because it reaches the broadest, most diverse audience (ethnicity, socio-economic status levels and age). Public service announcements may be an option as well as partnerships with select special interest groups to help with funding. Advertisements should be entertaining, appealing and educational. The recent "VERB - it's what you do" ad campaign is a good example. Radio advertisements could be effective if played on stations that reach the broadest audiences.

The internet is fairly common and a good resource for educators and consumers, but probably not the best form of advertising media for consumers.

Another possibility for advertising information about the Food Guide Pyramid is printing the information on food packaging (milk cartons, food boxes) and grocery bags, making brochures available in the supermarkets (e.g., 5-A-Day campaign), and advertising in printed materials and periodicals, billboards, and public transportation.

Information included on food packaging should include how much of the particular food is a Food Guide Pyramid serving and in which food group(s) the product can be categorized.

Sincerely,

Amy Glovier Kellie Curran Angie Frost Hannah Slack

Amy Glovier Kellie Curran Angie Frost Hannah Slack
c/o Carol J. Boushey, PhD, MPH, RD

West Lafayette, IN

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August 25, 2004

Food Guidance Pyramid Reassessment Team
USDA Center for Nutrition Policy and Promotion
3101 Park Center Drive, Room 1034
Alexandria, VA 22302

RE: Request for Printed Comments on new Food Guidance

Dear Team Members,

Thank you for the opportunity to share my comments and recommendations with your team regarding the new Food Guidance to be distributed to the American public in January 2005.

Included you will find notes used for of my presentation at the meeting as well as more specific recommendations that are addressed in the format of the pdf notice that was published on the internet, July 13, 2004.

Since food and nutrition are the essence on which Spirit of Food is based, these comments come well researched. While it may be difficult to recognize the profound effects that nutritional recommendations may have on diagnosed illness of a physiologic nature, my practice has many success stories that attest to this fact.

Several testimonials of patients/clients that are kept on file, indicate that with the proper recommendations and commitment, the desired change can be within reach.

It is with respect that the following is submitted. If I may clarify any of these comments, please contact my corporate offices at (702) 933-4034 or reach me via cell phone# (805) 451-0875. Also, please be aware that my company's services can be contracted for public educational purposes in an interactive presentation format.

COMMENTS IN RESPONSE TO PDF NOTICE, Federal Register, Vol. 69, No. 133, Tuesday, July 13, 2004:

A. Graphic Shape Change?

1. Advantages are that it would be a new look at the old topic.
2. Disadvantages include the rift of a new knowledge base and the current one, creating an opportunity for one factor to claim to be more knowledgeable, while the public would remain in the dark. Also, the costs across all sectors providing nutritional information would be exorbitant and burdensome, creating another opportunity for the American public to be lost in the shuffle. Then there is the issue of what the new shape may be; involving many debates, therefore cost time and again the consumer is not served effectively.

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3. In the event that another shape is the choice, my recommendation would be a bowl since it is a kitchen item and the association with food is more likely.

B. Usefulness of both motivational/awareness and education messages.

Through survey of individuals in my travels this past summer, with exposure to students in an educational setting, to executives, more people have the message that nutritional information is a part of a healthy life. Information warnings that eating improperly can lead to diabetes, coronary disease, cancer, etc. are beginning to hit the comfort zone. People who eat incorrectly are simply more uncomfortable and more susceptible to pain, disease and emotional illness. It has been my experience that positive motivation must be supported by knowledgeable choices for change.

One approach may be a marketing strategy that alternates the message. For example, one month use the media to send caution messages describing one particular symtomology. The next month could be a guiding month, indicating specific nutritional steps to use to eliminate the possibility of falling into the disease mentioned previously. These messages provide knowledge leading to better choices, not necessarily products required to obtain the goal. This would leave decision to the individual and therefore more personal accountability for health and wellness.

Now that motivation or at least awareness is beginning to develop, stepping in with a trail to the data is the challenge and imperative action to achieve the goal of improved health for the American public.

How that is accomplished may be through a trail map type of icons/pictures that are delivered in one of two ways or both, numeric and pictorial on the Pyramid itself. Sounds may be added when viewing online to move people into sites that deliver data.

One example may be pictures that may actually look like a trail in the woods with a path of "bread crumbs" leading to the goal of appropriate foods. Or another style, a numeric equation, complete with each step attached to foods, with a solution containing the goal meals. And for those auditory learners sounds such as a doorchime, hall footsteps, with kitchen sounds of food preparation, leading to a meal served at a table, all of which deliver food guidance.

C. Advantages/Disadvantages to individualized/generalized

Unanimously, my audiences, or people that have been in conversation with me in regards to nutritional information, prefer to be given individualized data. This can be done in an audience setting, via messages that speak of food types, the properties they possess when ingested, and available choices. This is my chosen work, with **Food Physics and Body Dynamics™**. Using knowledge as a tool people are choosing to be responsible for their decisions by 'doing the research'. This is going to be one of the requirements in the next nutritional era. We have gotten away from nutritional education in the America school systems at an age that could have lifelong effects. This is one of the most important actions we must begin to restore health to the American public.

Food Intake Items mentioned in Section III, B. 1. Paragraph 1, of the Federal Register, / Vol. 69, No. 133/Tuesday, July 13, 2004, age, sex, and activity level must also include the following items to be complete:

Climate/Locale – Availability of foods in a specific region or locale, must be considered. Generally, foods that grow and thrive in an area are best suited to sustain life in that area with fewest additional supplements required. This

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presumes that the food is handled properly by heating to degree to eliminate unwanted bacteria. Also, that proper hand and food washing takes place. While the body uses some "friendly flora" intestinally, it is good to be in charge of that bacteria presence.

Career choices – Foods that support mental activity are not always the same ones that support our muscles so a healthy balance needs to be addressed in the educational process. This would address the protein/carb craze that continues without proper education of the public about balanced choices. It will be good to remind people that the body is our gift to reside within and to care for appropriately, encouraging responsible choice to experience better quality long term life.

Temperature – Although this is listed last, it may be of primary impact. This particular era of human existence has come to rely on refrigeration for the preservation of our foods. Consideration that humankind has now begun to change our internal climate with the foods that we eat. We drink iced beverages. In doing so, the cold passes our thyroid, parathyroid and blood pressure regulator in our neck and throat. This may be sending the wrong signals to our metabolic system managed by hormonal signals.

Then there is the fact that we handle ice as though is could not carry the bacteria from our hands or the containers it is managed with, stored in, or distributed by. Messages that include proper cleaning of all items that are used in food prepare; etc. may be used to correct this short fall.

Additionally, we are now a generation of microwave users. However, many of us don't know how to properly use a microwave to heat the foods to a temperature to reduce or eliminate bacteria while we retain flavor and nutrients. Messages from microwave manufacturers that address these issues may need to be stressed.

D. Focus on core messages

The plan to use the Pyramid branding the messages targeted appears to be in line with the 'trail guidance' that was previously address in response to item C (above). There is simply too much data for Pyramid alone to relay pictorially to create better health through nutritional awareness.

There may be some difficulty as other agencies are now utilizing the shape to convey their specific method. Is the Pyramid trademarked? If so can we use that ™ symbol to recognize the endorsed information in the future?

E. Key components for effective interactive educational tools. Several tools that are currently on the market will assess the food intake and report to the individual the caloric value, vitamin and mineral content, the food value, etc. As is the case in any self-reliant system, there is the error factor, knowledge required inputting data, and simply 'cheating' (on themselves). Some of these systems have created a human monitor system, like WeightWatchers, to address these difficulties.

Food Physics and Body Dynamics™ is designed to be an interactive presentation at job sites that delivers personal food intake guidelines during interactive presentations,

Dawson 4 of 5

in follow-up 'mini' consultations, and when needed in-depth personal one-on-one meetings. Teaching recognition of body signs and behavior that responds to nutritional awareness/choices in a group setting empowers and inspires, not just one, but the group. That power combined with the knowledge of food function as noted by the color and flavor of that item; will give audiences the tools needed to make better food intake choices in all walks of life, locations, and in the age progression.

F. Channels of delivery of Food Guidance System.

During my presentation on August 19, 2004, before the panel, I stated that there were several methods that people are known to receive their information. Readers, listeners, tactile and those that pattern after role models. One of the most profound learning methods appears to be that of patterning after role models. Thus the function of recruiting the services of contractors or employing those that can deliver the information and use it in their daily lives.

Thank you for taking the time to review these comments and recommendations. The draft of my presentation follows to serve as a reminder. Again, I would like to offer my services to deliver this information to the American public. My business plan is one that would allow me to travel for one or two weeks per month, during which I would be sharing the protocol, Food Physics and Body Dynamics™. I would be happy to demonstrate it to the CNPP staff for their personal and professional benefit this autumn. I believe it would be a significant tool to manage obesity. It may be something that could be included in the conference on obesity in October.

Please contact my newly formed corporate offices for more information. The address is 4535 W. Sahara Ave. Suite 204, Las Vegas, phone number (702) 933-4035.

It is my sincere desire that these comments serve the greater good of the project to improve the health and wellbeing of the American public through quality nutritional knowledge and choice.

Sincerely,

Laura L. Dawson

Laura L. Dawson, Dipl. Ac.

NOTES FROM AUGUST 19, 2004 MEETING AT USDA, CNPP, WASHINGTON, DC.

Laura Dawson
Hold a master's in Acupuncture and Oriental Medicine
Accredited School, SB College of Oriental Medicine
Nationally Certified Practionier of Acupuncture and Oriental Medicine, By NCCAOM

Established nutritional education and consultation business in 1998, Spirit of Food.

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Dedicated to EDUCATE, INSPIRE, AND EMPOWER individuals to achieve and maintain optimum health and enjoy life more fully.
We have developed a method, Food Physics and Body Dynamics™, as a public, interactive presentation to that end.
Nutrition has been the focus of this method to improve and enhance health, thus my presence here today.

In the interest of time I will address my comments to pros/cons of indiviualize versus generalized.

Food Intake patterns:
In additional to AGE, SEX(GENDER), PHYSICAL ACTIVITY

E. Climate/locale – temperature, foods available
F. Genetic background

CLOSING:
It is my hope that the communication tools required to support this added data support the selection for INDIVIDUALIZED information.
It is time that we TEACH at a personal level, the great power that taking responsibility for knowledgeable INDIVIDUAL choice imparts.
In additional to all of the wonderful media tools available, a simple face-to-face, teachable process is of GREAT reward, especially when providing health/life-enhancing data.
There are several types of learners;

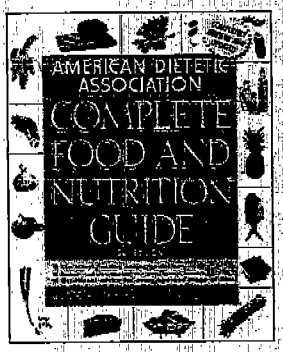
1. readers,
2. listeners,
3. sensory
4. and those that model after role models. I believe this to be one of the most profound learning methods

It is therefore essential to enlist quality stakeholders, as is diligence to promote health through nutritional education. With knowledge comes the power to change…

1. diabetes Type 2
2. cardiovascular diseases
3. chronic illness

The American public enjoys the right to independent choice. It is one of our fundamental rights and one of the things that makes our nation uniquely America.
LET US SUPPORT THAT RIGHT TO CHOOSE WITH THE KNOWLEDGE TO MAKE THE BEST CHOICE.

AUG 27 2004



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DUYFF ASSOCIATES
FOOD AND NUTRITION CONSULTING
ST. LOUIS, MO
www.duyff.com

August 25, 2004

Food Guide Pyramid Reassessment Team
USDA Center for Nutrition Policy and Promotion
3101 Park Center Drive, Room 1034
Alexandria, VA 22302

As a food and nutrition educator, author, and consultant, I am pleased that dietary guidance for the American public is under careful review to reflect current science and public health issues, and to consider an approach that not only provides guidance but that also helps consumers of all ages apply the guidance to their own individual nutrition needs, food preferences and lifestyles.

As a nutrition educator working closely with the pre-kindergarten through grade 12 school community, I urge the committee to:

- Plan *age-appropriate* implementation strategies, graphics, key messages, etc. to engage young people (grade school, middle school, high school) in using food guidance to meet their individual nutrition needs.

- Involve those of us who create curriculum and textbooks for health, family and consumer science, culinary nutrition and related curriculum in designing those age-appropriate strategies early in the process. Classroom teachers and curriculum designers in family and consumer science, science, and health play a key role in educating youth, and serve as effective partners in updated food guidance initiatives. Textbooks -- often used for five years or longer – often provide outdated food guidance; those designing curriculum need updated information as soon as possible.

As an author of science-based nutrition books for the public, I urge the committee to:

- Reflect the complexities of today's food supply: fortified foods with nutrient profiles that are different from traditional foods, mixed-ingredient foods, diversity of choices including more ethnic foods, various forms of food (fresh, frozen, canned, dried) as a way to help consumers meet dietary goals, among others

- Offer easy-to-use guidance to reflect how much is enough of various foods, as a way to help address overeating

- Recognize that individual eating plans need to not only reflect different calorie levels, but also different development/age needs, different food styles (e.g. vegetarian eating), among others

- Provide guidance on adequate fluid intake, including beverage choices

- Build active living into the guidance, as a way to address energy balance

- Honor the link between flavor/enjoyment and healthy eating in messages about dietary guidance

- Provide opportunities for nutrition professionals, including those who communicate with consumers, to be part of the communications strategy for updated food guidance *early*, by providing us with the information we need to be proactive before -- as soon as -- guidance is released to the public

Again, I commend the USDA for their commitment of time and energy necessary to update and revise the current Food Guidance System.

Roberta L. Duyff, MS, RD, FADA, CFCS

Author, *American Dietetic Association Complete Food and Nutrition Guide* (John Wiley & Sons trade book)
Nutrition and Wellness (Glencoe/McGraw-Hill secondary text)
Food and Nutrition Consultant/President, Duyff Associates

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Phylicia Bernstein
145 S. Barbara Way
Anaheim, CA 92806

Food Guide Pyramid
Reassessment Team
USDA Center for Nutrition Policy
3101 Park Center Drive Rm. 1034
Alexandria, VA 22302

August 14, 2004

To Whom it may Concern

My name is Phylicia Bernstein. I am a registered nurse and I am writing to share my thoughts regarding changing the food pyramid.

As a nurse, I have some training in nutrition and I have tried to follow the new food pyramid and the low fat suggestions. I am 57 years old and my weight maxed out at 315 pounds. I knew if I didn't do something I would probably die. I considered many of the diet plans available and I knew that I would have to feel satisfied or I would never stick to it. I decided to go on Atkins low carb program and I now weigh 245 and I am continuing to loose weight. If you look at the Atkins plan, it is all natural foods with no trans fat and low carbohydrate. My LDL cholesterol went from 137 to 100, HDL 80 and my triglycerides went from 103 to 60. I have never felt better, more energy, I was able to go off my blood pressure medication. I plan to stay on a low carbohydrate diet for the rest of my life. I see people in my workplace cafeteria and all they eat is high carbohydrate foods and they are all overweight. I watch what people put in their shopping carts at the grocery store and I am shocked at the amount of carbohydrates . Animal fat is not the problem. The problem is most people don't like fruits and vegetables and load up on pasta, bread, and potatoes.

Thank you for finally reassessing the food pyramid.

Sincerely,

Phylicia Bernstein RN

AUG 27 2004

Manhattan Beach, CA

August 26, 2004

Food Guide Pyramid Reassessment Team
USDA Center for Nutrition Policy and Promotion
3101 Park Center Drive
Room 1034
Alexandria, VA 22032

Rebele 1 of 6

Dear Reassessment Team:

I am writing in response to the call for comments on the proposed Food Guidance System. As a practicing Registered Dietitian for the past four years, I have used the current Food Guide Pyramid in educating numerous patients and community groups about healthful eating. I feel that although the Food Guide Pyramid is a useful tool, it has many shortcomings, as pointed out in the Federal Register of July 2004. I agree that changes need to be made to allow consumers to use the Food Guidance system to make their food choices, however I am concerned that similar problems with the current system will occur with the proposed one.

Over the years of practicing as a Dietitian, I've learned that most people I've come in contact with do not want vague references to what they should eat, such as "limit", "avoid", "go easy" or "eat in moderation". Most consumers want to know exactly what foods they should eat, how much of it should they eat and what they should not eat. While I understand that the Food Guide Pyramid was designed to be used in conjunction with a 32-page booklet providing useful information (which I only became aware of one year ago), I feel that it has failed. In our society of busy, hectic lifestyles more consumers are eating and shopping in a rush. For the new Food Guidance System to be successful, it should provide as much information that would be useful to the consumer without overloading them. Additional and more specific individualized information can be accessed by those interested.

Enclosed in this package are suggestions presented by myself in cooperation with Melissa London, RD and Julia Levine, MS, RD for a graphic presentation of a food Guidance System. We feel that using a traffic light graphic with the red, yellow and green lights representing foods to avoid (red/stop), foods to allow in moderation (yellow/caution) and foods to eat plenty of (green/go) presents the Food Guidance System from a health perspective that can be used by most cultures, age levels and education levels. This simple graphic is easily recognized and most people understand the meaning of the red, yellow and green lights.

This graphic could be used on food packaging (in place of the current Food Guide Pyramid) highlighting what category that food item falls into (red, yellow or green). Having the graphic on food packages will aid the consumers at the point of sale to decide if they should purchase it, then decide how and when it should be consumed. Placing the graphic on food packages may cause some issues with food companies, especially if their food falls into the yellow/caution or red/stop category, however we feel that this is important information for the consumer to have. Many consumers do not interpret the nutrition information labels correctly and are not able to make an informed decision about that food item. The red/yellow/green

symbol will make the process easier for them. This might also prompt the food companies to modify their food products to be healthier thus gaining it a better symbol.

In addition to the traffic light graphic, we have included a very simple graphic representation of what a food plate should look like vs. the current system's serving sizes and servings per day. In my experience, most consumers are not aware of what a proper serving size is or how many to eat. They are often overwhelmed by the number of servings they think they need to eat everyday, not realizing that a serving could be as small as 1 ounce or ½ cup. Many consumers think that a serving size is the amount of food on their plate or the amount of food in a package. The suggested plate visual with everyday items to compare food servings to is clear and easy to understand. We have used these types of visuals successfully with our patients (as verbally reported to us by our patients).

In addition to the above suggestions, the following is in reply to Part VI of the Federal Register "Topics of Particular Interest to CNPP":

A. Advantages/Disadvantages of the Current Graphic…:

Advantages: The current shape is widely recognized and has been in use for many years. Consumers are aware of the symbol and what it represents. The size of the food groupings visually represents which groups to eat more or less of.

Disadvantages: While the graphic is recognizable, many consumers do not interpret it correctly in terms of how many servings to eat and what a serving size is. It does not distinguish whole vs. refined grains or healthy vegetable oils vs. animal fats.

Overall, I do not think it would be important to keep the current shape. It will take some time to educate consumers about a new graphic, however, I think that many consumers are frustrated with the current system and might embrace a new one easily, so long as it is not as cumbersome as the current one. The pyramid may be kept as part of the education materials that will accompany the new Food Guidance System and be used more as a tool in addition to a new graphic to show proportionality.

Shapes to consider: See the explanation above for the traffic light. A plate with food would also be a great way to communicate portion sizes.

B. Usefulness of the Proposed Strategies…:

Using a graphic to identify the "brand" of the Food Guidance System is a great idea, but I think a stand alone educational tool would be a better way to go. In this fast-paced world, people do not have time nor do they want to dig-deeper to figure out what the rest of the message is. They want information that is fast, convenient and easy to interpret.

A well-written slogan is a great idea to spread the word on the new system, if it is designed as well as most successful commercial food ad campaigns are (it will have to compete with these popular messages) vs. most public health approaches. It should be catchy, flashy and convey appropriate information.

C. Advantages and Disadvantages of Individualized Guidance…:

Individualized guidance would be the ideal way to provide the appropriate information to all demographic groups. This type of system would most likely have the greatest success in behavior changes due to the specificity of the message. The materials should be developed using the target groups as advisors and then need to be tested to ensure the messages are well understood. These targeted educational materials should be disseminated via the appropriate channels, i.e., schools, clinics, doctors offices, colleges, fitness centers, etc., to reach as many consumers as possible.

A downside of individualizing messages is that no matter how well it is designed, some groups will still be left out. If there are not any general or universal messages, these consumers may not receive any messages at all.

General health information would be best to include in universal messages such as (but not limited to):

- eating 5 or more fruits and vegetables a day
- limiting alcohol
- exercising daily
- limiting animal fats
- eating more whole grains and beans
- limiting fried foods
- limiting candy and sugar intake

D. Advantages and disadvantages of Focused Core Messages...:

While branding the Food Guidance System will likely help with consumer recognition but as mentioned earlier, using the graphic only as brand identification would be a disadvantage due to the speed at which many consumers require their information. Core messages may be missed if not presented on the graphic. The various core messages might compete with each other, further confusing the public. Too many core messages without a tool to tie them all together may miss those individuals that they are targeted at. The messages should be used in conjunction with the graphic, not as the core to the program. The graphic should communicate essential information that is clear, concise, not confusing or ambiguous.

E. Key Components for Effective Interactive Educational Tools:

Interactive educational tools have had great success with behavior changes, especially if they are personalized. Developing websites and CD-ROM's are great ways to provide more complex food guidance to consumers. A tool that allows the consumer to individualize the program as close to their lifestyle would be beneficial. General information should be based on their age, sex, height and weight. This should be sufficient to provide the minimum amounts of food to consume. The information provided could range from a meal plan to just the amounts of servings of food from each food group to eat each day (let them decide when they will eat it).

For further individualization, some elements to consider for personalization should be:
Age, sex, current eating habits, daily activities, food preferences, cultural food habits, nutrition related disease diagnosis, and food allergies

F. Channels of Delivery of the Food Guidance System:

To reach most consumers with the messages there should be a multi-channel advertising campaign. This should include television, radio, print and internet ads that are targeted to each demographic.

For educators, print and internet based-materials are the best way to disseminate information with copy-ready materials to be used to pass on to clients and patients.

A school-based curricula should be developed and implemented with the Food Guidance System core messages hitting elementary, middle and high school students at critical ages where food habits are formed.

Using the internet as the key channel for delivery of information will likely miss the majority of the population. Many populations including low income, low literacy, elderly, computer illiterate, and the very young do not have access to the internet and would likely miss the information. Other channels would need to be identified for these groups to gain the information. These audiences may be reached via health educators in schools, community groups, senior centers, after-school programs, pre-schools, clinics, libraries, and doctors offices. Written and oral materials should be used and tailored to their demographics.

Thank you for considering the traffic symbol graphic as well as the above recommendations to the proposed Food Guidance System. We hope you will consider these ideas when developing the new system.

Sincerely,

Tara L. Rebele, RD

Tara L. Rebele, RD
Centinela Hospital Medical Center
Clinical Dietitian
University of Southern California
Master of Public Health Student

Manhattan Beach, CA

Rebecka 5 of 6

SPEED FORWARD WITH HEALTHY EATING

- Sausage & Bacon
- Fast Food
- High Fat Foods
- Processed Cheese
- Processed Grains

- "Junk Food"
- Bakery Goods (cookies, pies, cakes, etc)
- Candy
- Candy Bars
- Donuts
- Regular Soda

(red)

- Whole Eggs
- Red Meats
- Deli Meats/ Processed Meats
- Lowfat Cheeses
- Lowfat Dairy Products
- Juice

CAUTION
EAT 2 TO 3 TIMES A WEEK

(yellow)

- Fruits
- Any Vegetables
- Whole Grains – wheat, oat, barley, bran, rye
- High Fiber Cereals
- Fat Free/Nonfat Dairy Products

- Seeds
- Nuts
- Avocado
- Olive & Canola Oil
- Lean Meats
- Egg Whites
- Fatty Fish
- Beans & Lentils

(green)

EXERCISE DAILY

Rebecle 6 of 6

SPEED FORWARD WITH HEALTHY EATING

- Seeds
- Nuts
- Avocado
- Olive & Canola Oil
- Lean Meats
- Egg Whites
- Fatty Fish
- Beans & Lentils

- Fruits
- Any Vegetables
- Whole Grains
- High Fiber Cereals
- Fat Free/Nonfat Dairy Products

EXERCISE DAILY

- Whole Eggs
- Red Meats
- Deli Meats/ Processed Meats
- Lowfat Cheeses
- Lowfat Dairy Products
- Juice

- Sausage & Bacon
- Fast Food
- High Fat Foods
- Processed Cheese
- Processed Grains

- "Junk Food"
- Bakery Goods (cookies, pies, cakes, etc)
- Candy
- Candy Bars
- Donuts
- Regular Soda

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August 24, 2004

Inglewood, CA

Food Guide Pyramid Reassessment Team
USDA Center for Nutrition Policy and Promotion
3101 Park Center Drive, Room 1034
Alexandria, VA 22302

Dear Reassessment Team:

The current Food Guide Pyramid is a useful tool if the consumer has been educated on how to use it: however, it seems the current pyramid graphic misses many key points that need emphasized. One key point the current graphic does not communicate to the consumer is what types of food provide nutritional benefit and should be eaten often. It doesn't tell the average consumer there is a difference between the healthy whole grains and the less healthy processed grains, the difference between the healthy fats and unhealthy fats, the difference between healthy meats and unhealthy meats, etc. The second fact the average consumer seems to misunderstand from the current graphic depictions is what exactly a serving size is. Our experience working as Registered Dietitians with individuals has shown us most consumers think of a serving as one plateful or one piece of whatever. They are unaware of measurements that represent servings. Finally, we feel that there is not enough emphasis placed on the importance of eating vegetables and fruits and exercising daily. These should be stressed because of their many nutritional and health benefits.

Our suggestions for changes are attached in an easy to understand graphic that can be used across all cultures and most education levels. The graphic does not emphasize portion size as measurements, but rather how to plate food and what foods are the foods to choose from on a daily (green), less frequent (yellow), and infrequent/never (red) basis. It highlights the foods that are nutrient dense, protective, and have disease preventative benefits for the body. Additionally the graphic uses a traffic light that most people can understand as red meaning stop, yellow meaning caution, and green meaning go. Daily exercise is also given emphasis to as being a part of a healthy diet.

Thank you for the opportunity to present our ideas for changes to the Food Guidance System and we hope they will be considered. We can be reached for additional comments/questions via email at melissalondon1@yahoo.com or julialevine@comcast.net

Sincerely,

Melissa J. London, RD
Clinical Dietitian
Centinela Hospital Medical Center

Julie Levine, MS, RD
Clinical Dietitian
Centinela Hospital Medical Center

AUG 27 2004

August 25, 2004

Helman 1 of 1

Potomac, Maryland

Food Guide Pyramid Reassessment Team
USDA Center for Nutrition Policy and Promotion
3101 Park Center Drive
Room 1034
Alexandria, VA 22302

To Whom It May Concern:

Advantage of retaining the pyramid shape:

- The public are finally familiar with the food guide pyramid.

Disadvantage of retaining the pyramid shape:

- People are consuming too many bread items in the form of high calorie foods such as muffins, cookies and other pastries.
- Protein and dairy sections of the pyramid appear less important than the bread section.

Motional awareness and educational message:

- Both are important for different reasons.
- People of all ages need motivation to make better educated choices.

Individualized guidance contrasted with generalized messages:

- Generalized messages are good for simplicity.
- Individualized advice is just that – individualized.

Core messages contrasted with graphic educational messages:

- Core messages can be more specific.
- Graphic educational messages good for illiterate, low income groups.

Effective interactive educational tools key components:

- Simple/Large Print
- Basic
- Colorful
- Realistic

Sincerely,

Paulette Helman

Paulette Helman, MS, RD
Public Health Nutritionist
DC Office on Aging

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ADA concurs with the Food Guidance System's underlying nutrition messages: adequacy, variety, proportionality, and moderation. Together with its guide, the Food Guide Pyramid was to promote health based on up-to-date research to meet nutrition goals in a realistic manner while allowing for maximum flexibility so that it could be practically implemented by its target audience. The graphic is now widely recognized and valued but not well understood. The focus of this revision process should be to improve consumer understanding and application of the underlying nutrition messages.

What are the advantages and disadvantages of retaining current shape for graphic and other potential shapes?

The shape of the Food Guide Pyramid was not an arbitrary decision but rather the result of multi-million dollar research in the late 1980's. The research explored many alternative shapes and looked for the graphic that best communicated variety, proportionality, and moderation to the target audience: adults with at least a high school education who ate a typical American diet. The graphic had to be reproducible in many sizes and in both color and black and white. The Pyramid was chosen because it best met each of these criteria[1]. To date, no research has been done that contradicts that conclusion. In addition, the Food Guide Pyramid is one of the most widely recognized and widely distributed nutrition education tools in the United States.[2] **Thus, the Pyramid shape should be retained.** The messaging within and accompanying the shape needs to be updated to reflect current science and improve consumer understanding, but abandoning the shape would only further complicate the process.

What is the usefulness of the proposed strategies to highlight both motivational/awareness and educational messages?

The range of strategies described in Section III of the Federal Register has the potential to be effective. Making them effective will require considerable market testing with diverse audiences in order to ensure that the graphic, slogan, and core messages do, indeed, communicate what is intended to those for whom it is intended. For instance, encouraging people to 'promote nutrient dense food choices' is healthy advice, but may mean nothing to most consumers. Determining what language best communicates to consumers is at the core of effective consumer messaging and thus, these strategies are entirely dependent on that process.

Given the importance of the consumer research in making these messages relevant and effective, ADA suggests that the consumer research results be made public and available for comment via the Federal Register and/or published

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[1] Welsh S, Davis C, Shaw A. Development of the Food Guide Pyramid. Nutrition Today. Nov/Dec 1992; 12-23.

[2] Goldberg JP, Bellury MA, Elam P, et al. The Obesity Crisis: Don't blame it on the Pyramid. JADA 2004, 104(7): 1141-1147.

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in peer reviewed journals. Continuing with the transparent and evidence based approach to Food Guidance development beyond this comment period is paramount not only to creating the best outcomes but also to maintaining the process's credibility.

In addition, USDA may want to consider health care professionals as an additional target audience for communication, interactive programs, and print materials. Development of more complicated concepts, such as nutrient density, best starts with health care professionals. Educating health care professionals on more complicated points may allow them to better communicate basic principals and their application to their clients.

Advantages and disadvantages of the plan to individualize guidance in contrast to "generalized" messages?

The graphic, slogan, and core messages should be applicable to all consumers. The basic principles of adequacy, variety, proportionality, and moderation are the basics of a healthy diet regardless of age and health status. In addition, the basic points highlighted by past versions of the Dietary Guidelines are also universally applicable: Eat a variety of fruits and vegetables, choose more whole grains, moderate fat, sugars, and sodium intake, and balance energy input with energy output. What varies among people are the specifics of what and how much to consume. Thus, the major points such as 'choose lean dairy products' are useful general messages. The specifics of whether to have 2, 3, or 4 servings a day, or whether to take a calcium supplement, or to consume high calcium dairy alternatives if you dislike dairy products, should be individualized via print or electronic materials.

According to NHANES data, almost 65% of adults are overweight or obese and over 15% of youth are overweight[3,4]. Therefore, any public health nutrition campaign should take into account the specific needs of overweight and obese populations. However, much of what is healthy for those who are overweight or obese is also healthy for the population as a whole. Because obesity is caused by over consumption of calories relative to energy expenditure, public health guidance should encourage people to moderate calories and increase physical activity as appropriate to maintain or lose weight. However, the guidance should not be universally in favor of weight loss as weight loss is not appropriate for everyone. However, it would be advisable to include weight loss guidance for the large subset of the population who is seeking such information.

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[3] Health, United States, 2002, table 70: Healthy weight, overweight, and obesity among persons 20 years of age and over, according to sex, age, race, and Hispanic origin: United States, 1960-62, 1971-74, 1976-80, 1988-94, and 1999-2000.

[4] Health, United States, 2002, table 71: Overweight children and adolescents 6-19 years of age, according to sex, age, race, and Hispanic origin: United States, selected years 1963-65 through 1999-2000.

Thus, the core messaging must focus on the highlights that apply to everyone (of various body sizes, ages, etc.) such that at the minimum people get the basic messages they need to be healthy. Specifics beyond those basic messages can then be targeted at specific populations so long as the messages are still within the realm of 'healthy' and not 'therapeutic' nutrition advice. Therapeutic advice needs to be tailored to each individual and would not be appropriate for a public health campaign. People with special medical concerns such as those with diabetes, heart disease, or eating disorders require medical nutrition therapy by dietetic professionals in order to address their complex nutrition needs. To ward against public guidance being seen as a substitute for therapeutic intervention, public nutrition guidance should include a tagline analogous to those on over the counter medications that encourages consumers to see a health professional, such as a Registered Dietitian, for more information or if health concerns persist.

Advantages and disadvantages of the planned focus on core messages in contrast to use of a graphic to represent educational messages?

According to the 1997 ADA Nutrition Trends survey, two thirds of people recognized the Pyramid and almost half of them considered it valuable[5]. More recent Gallop studies done for the Wheat Foods Council have not only confirmed that finding but have shown that recognition is growing with 75% of people recognizing the Pyramid in 2000[6]. Yet, according to the 1999-2000 Healthy Eating Index, only 16% of Americans eat what is classified as a "good" diet such as the Pyramid represents[7]. This incongruence is symbolic of the current problem with the Food Guide Pyramid: most people recognize it but few people understand it and almost no one adheres to it.

A prime example of consumer misunderstanding is the size of a serving. The 2002 ADA Trends survey asked people to identify correct serving sizes for different foods. With the exception of bread, the majority of consumers could not correctly identify the recommended serving size of foods. With very few exceptions, consumers perceive serving sizes to be larger – and often considerably larger -- than that recommended by the Food Guide Pyramid.

Eating is a complex behavior with biological, environmental, social, cultural, and behavioral interactions. No one nutrition education tool could be expected to significantly affect such a multifaceted behavior. Unfortunately, the Pyramid is often used as a stand-alone nutrition education tool in ways that were never intended. Illustrations such as the Pyramid are best used as part of nutrition education programs and curriculums that focus on the total diet. Several studies have shown that nutrition education that focuses on the total diet is effective in

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[5] Nestle M. In defense of the USDA food guide pyramid. Nutrition Today 1998; 33: 189-197.
[6] Wheat Foods Council. National Gallup Survey Summary: Going Against the Grain. Parker, Co: Wheat Foods Council; 2001.
[7] Basiotis PP, Carlson A, Gerrior Sa, Juan WY, Lino M. The Healthy Eating Index: 1999-2000. Washington, DC: US Dept of Agriculture, Center for Nutrition Policy and Promotion, CNPP-12; 2000.

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improving health outcomes such as BMI, blood pressure, and blood lipid levels[8,9]. And according to CSFII data, individuals with Pyramid-based dietary patterns have lower BMI's than those with non-Pyramid based diets[10]. Therefore, the revised Food Guidance System should incorporate the graphic into a larger system of total diet education that includes core messages and strategies for implementation.

Key Components for Effective Interactive Educational Tools

Several studies have shown that tailored interactive nutrition education is more effective in changing attitudes and behaviors than general messaging[11 12 13]. Components of effective programs include a strong theoretical framework, ongoing coaching, and tailored behavioral feedback. Many interactive models have included personal interaction such as peer support groups, professionally facilitated discussions, and professional personal feedback that is likely beyond the scope of CNPP's current efforts, but could be offered via other organizations as a complement to CNPP's work.

The greatest barrier to effective on-line interactive nutrition education is access to the electronic medium. Interactive programming is most easily and economically conducted via the Internet and thus requires both access to and understanding of the web. Unfortunately, populations most at risk for poor nutrition, such as those at lower economic levels and the elderly, also have limited access to the web and limited computer literacy. However, this obstacle could be overcome via creative partnering with locations such as grocery stores, libraries, doctor's offices, and schools who could provide kiosks or other types of web access and assistance. For instance, a Virginia Tech study demonstrated significant success with a 15-week nutrition intervention done via grocery store kiosks[14].

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Channels of Delivery for the Food Guidance System

According to ADA's 2002 Nutrition Trends Survey, Americans' two primary sources for nutrition information are television and magazines. Although the Internet's role is growing, in 2002 only 13% of people surveyed considered it their primary source of nutrition information[15] - up from 6% in 2000. Thus, the new Food Guidance System will have the greatest impact if it is not only available via interactive web sites, but is also incorporated into or at least referenced by mainstream media. Incorporating the Food Guidance System into mainstream media will require a significant marketing and education campaign beyond what is on the web including working with professional associations, journalists, and television and magazine producers. Incorporating the messages of the Pyramid into or referring people to available web tools via mainstream culture including programs people are already watching and magazines they are already reading will multiply the impact of the new system by maximizing the reach.

The good news is that people are increasingly interested in nutrition and health. The 2003 nutrition trends survey indicated that 85% of people consider nutrition important to them personally and 75% say they carefully select foods in order to achieve balanced nutrition and a healthful diet. 58% say they actively seek information about nutrition and healthful eating. And when people seek nutrition information, their most trusted sources are doctors, registered dietitians, and other health care professionals[16]. Thus, working with professional associations such as ADA and having materials that are easily accessed and reproduced by practitioners will be critical to communicating the messages to consumers.

Given the expectation that the USDA Food Guidance System will require additional updating and revision in the future, it would be wise to establish the process to systematically evaluate the existing and new evidence to support the Food Guidance System at the introduction of the new Guidance System. Ideally, the next revision could incorporate a far more comprehensive analysis of the Food Guidance System's effectiveness in meeting specific outcomes. Thus, USDA would need to establish a conceptual framework that articulates evidence analysis questions and a process to evaluate peer reviewed published research on an ongoing basis between the revisions. Establishing this framework would provide another avenue for partnering with other organizations such as ADA that are already adept in this process. ADA would open to exploring how to partner with USDA as they move forward in this process and share our experience and expertise in this area.

The American Dietetic Association reiterates its support of a thorough review process, affirms the retention of the Pyramid as the primary guidance illustration,

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encourages USDA to give significant analytical attention to the specific consumer messages and tools, and stands ready to assist in the process as it progresses.

Sincerely,

Susan Laramee

Susan Laramee MS, RD, LDN, FADA
President

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United Fresh Fruit & Vegetable Association

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August 26, 2004

Food Guide Pyramid Reassessment Team
USDA Center for Nutrition Policy and Promotion
3101 Park Center Drive
Room 1034
Alexandria, VA 22302

RE: Center for Nutrition Policy and Promotion; Notice of Proposal for Food Guide Graphic Presentation and Consumer Education Materials; Opportunity for Public Comment

Dear Sir or Madam:

Founded in 1904, the United Fresh Fruit and Vegetable Association (United) is a national trade association representing member growers, shippers, packers, processors, marketers and distributors of fresh produce in the United States. United members provide the leadership to shape business, trade and public policies that drive our industry. Working with thousands of industry members, United provides a fair and balanced forum to promote business solutions; helps build strong partnerships among all segments of the industry; promotes increased produce consumption; and provides scientific and technical expertise essential to competing effectively in today's marketplace.

As we continue to see an alarming increase in obesity and diabetes in the United States, United believes that we must provide consumers with the fundamental tools and education necessary to assist individuals in living healthier lifestyles through good nutritional choices. Fruits and vegetables are a central part of this commitment. The current *Dietary Guidelines for Americans* call for the consumption of 5-9 servings a day of fruits and vegetables as the cornerstone of good health. Yet, on any given day most individuals do not consume the recommended amount. It is time that the government focuses its efforts and develops programs designed to aggressively address this problem.

We are pleased that the Agency has initiated a broad-based review and update of the Food Guide Pyramid, USDA's current educational tool that interprets and helps Americans use the Dietary Guidelines. The revised consumer presentation, to be known as the food guidance system, is a critical step in helping consumers develop and meet nutritional goals. We are hopeful that the new system will meet its intended objectives of encouraging consumers to make positive changes in their food choices and educate them about the amounts and types of food to eat—resulting in increased fresh fruit and vegetable consumption.

The Agency is seeking comments on any aspect of the proposed food guidance system, but has particular interest in receiving guidance specific to several topics outlined in the Federal Register notice. At the outset, United wishes to provide general comments and then address some of the areas in question.

General Comments:

The new food guidance system must be easy for consumers to understand and use while moving Americans to make real, positive dietary changes. The food guide pyramid has been a good tool, but has not been effective in helping Americans change their diet to reflect its recommendations. Fruit and vegetable consumption data alone tells us that the average American eats only 1.5 servings of fruits and 3.3 servings of vegetables daily. Moreover, more than 75% of U.S. residents failed to meet the pyramid's minimum recommendation of 5 daily servings of fruits and vegetables in 2000. The new system must incorporate strong dietary messages that are not only educational but motivational as well driving consumers to live healthier lifestyles.

The revised guidance also must clearly reflect that fresh fruits and vegetables are the cornerstone of healthy living. They are naturally low in calories, saturated fat, cholesterol and sodium and are an ideal way to keep caloric intake balanced with energy expenditure to prevent weight gain, promote weight loss, and maintain a healthy weight. Additionally, science tells us that diets rich in fruits and vegetables can greatly reduce the risk of chronic diseases such as cancer, diabetes and coronary heart disease. In fact, recognizing current science, the draft of the revised Dietary Guidelines calls for Americans to eat 5-13 servings of fruits and vegetables daily—increasing the current recommendation of 5-9. Because fruits and vegetables are a vital foundation to optimal health, it is critical that they are not "lost" within the new guidance system. Fruit and vegetable consumption information must be the foundation of any graphical representation depicting good eating habits.

Further, the current food guide pyramid makes total diet recommendations and notes that consumers should be eating 5-9 servings of fruits and vegetables daily; but, it provides no overall health messages specific to the food groups. We believe that consumers will increase fruit and vegetable consumption if they fully understand their importance to overall health. With this in mind, we feel the Agency must incorporate dramatic messages relating the health benefits of fresh produce consumption to consumers in the revised system. These messages must be strongly communicated graphically and in a narrative format and should not be buried in the overall framework of the new guidance.

The guidance should also be strengthened to communicate the need for Americans to consume a wider variety of fruits and vegetables. Economic Research Service data from 2000 tells us that potatoes, iceburg lettuce and canned tomatoes accounted for 48% of U.S. vegetable consumption and that oranges, apples and bananas made up one half of the daily fruit servings consumed. Cleary, individuals are not reaping the benefits of eating a variety of fruits and vegetables and as such may be missing the health-promoting

nutrients unique to various fruit and vegetable items. Therefore, the new guidance system must strongly convey and support the variety message and its importance to healthy living.

Finally, the Agency is planning to consumer test all of the Food Guidance System elements noted in the notice to determine how well they communicate the intended messages. United supports this consumer research and believes it is a critical precursor to the success of the system. We strongly believe that the focus group testing should incorporate a measurement tool to assess consumer awareness associated with the system's fruit and vegetable recommendations because of the obvious health benefits associated with incorporation of fresh produce into daily eating.

United's Response to USDA Issues and Questions:

The Agency is seeking input on the advantages and disadvantages of retaining the current shape for the graphic and other potential shapes to use as a representative of the overall Food Guidance System. We believe that current graphic has not been wholly successful in changing overall consumer diets, but do not feel that its lack of widespread success is the result of its shape, a pyramid. We believe that the graphic's shape may be inconsequential—pyramid, circle, square or the myriad of options. What may be needed is better public communication and messaging concerning the system's dietary recommendations. Since the pyramid has achieved a wide level of recognition among Americans, the Agency may want to consider building upon its current foundation. But, we are certainly open to exploring other graphical presentations such as pie charts, bar charts, etc. that might convey greater understanding of proportions within the diet. In fact, we encourage USDA to test all of these formats.

Final Thoughts

United supports USDA's utilization of a full array of tools that inform, promote, enable and support healthy lifestyles. The new food guidance system should be the foundation of the Agency's arsenal. We must make every effort to ensure that all Americans have knowledge that leads them to healthier living. We hope that our comments are considered as the system is established and that the resultant end-product is widely used and truly makes a positive impact on eating behaviors nationwide.

Sincerely,

Jennifer Tong

Jennifer Tong
Director, Food Safety and Nutrition Outreach

Please Note: These detailed comments provided are supported by the Fresh Produce Association of the Americas and the Ventura County Agricultural Association.

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The American Society for Clinical Nutrition, Inc.

THE CLINICAL DIVISION OF THE AMERICAN SOCIETY FOR NUTRITIONAL SCIENCES

The American Journal of Clinical Nutrition

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August 27, 2004

USDA Center for Nutrition Policy and Promotion
3101 Park Center Drive
Room 1034
Alexandria, VA 22302

Dear Food Guide Pyramid Reassessment Team:

The American Society for Clinical Nutrition (ASCN), with 1400 members, consisting primarily of MD's and/or PhD's engaged in clinical nutrition research and education, thanks you for the opportunity to comment on the proposed Food Guidance System for the food guide's graphic presentation and education materials. We appreciate your willingness to consider ways in which the Food Guide Pyramid and the Dietary Guidelines for Americans can better support the selection of foods and the pursuit of a more active lifestyle that will contribute to the health and well being of Americans of all ages.

Food Guide Pyramid Graphic

The Food Guide Pyramid has become an icon. Even its detractors have developed pyramids of their own, suggesting that the Pyramid has gained widespread acceptance and recognition, which ASCN regards as an important reason for retaining the Pyramid shape. In fact, in the interests of reducing consumer confusion and nutrition "disinformation", we would urge that the government take the necessary legal steps to protect the usage of the Food Guide Pyramid and prevent its distortion. The public should be permitted to faithfully reproduce the Pyramid as promulgated by USDA, but not distort it in any way.

In the past, the Dietary Guidelines for Americans and Food Guide Pyramid have targeted healthy people of normal body weight. But today overweight and obesity have become so prevalent that the average American adult is overweight as defined by a BMI of 25 or greater. Consequently, we would like to suggest that the content of the Food Guide Pyramid, which is proposed to be based on the Dietary Guidelines for Americans, fulfill the urgent need to provide dietary and lifestyle guidance for weight loss and for the prevention of further weight gain. Furthermore, the prevalence of overweight children is rapidly increasing and thus we urge this guidance to extend to all ages. In this regard, we urge you to review the upcoming Institute of Medicine report on the prevention of childhood obesity. Because of the urgency of this issue, it would be ideal to capture key messages and recommendations that come from that report and coordinate them with the Food Guidance System.

Bethesda, Maryland

ASCN Phone: • ASCN Fax • e-mail: Internet: http://www.ascn.org
AJCN Phone: • *AJCN* Fax: • e-mail: Internet: http://www.ajcn.org

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The shape of the Pyramid and the position of the various food groups within it are intended to convey the concept of dietary balance. Yet consumers continue to be confused about the importance of a balanced diet and have attempted to eliminate entire macronutrient groups from their daily diet. This suggests the critical need to offer more guidance to consumers on making calories count by selecting naturally nutrient rich foods from all of the food groups. Combined in a daily diet, these foods should contain reasonable portions of protein, fat and carbohydrate.

Food Guidance System Educational Materials

The Food Guidance System needs to better explain the concept of energy balance in weight control. The fundamental role of calories in versus calories out in energy balance and weight control is a concept that every child, teenager and adult needs to understand. The primary role of the Food Guide Pyramid, however, is to help consumers select a balanced healthy diet within the limits of their energy needs. To this end, many members of ASCN who teach nutrition have made use of the pyramid concept and have developed a series of Food Guide Pyramids to reflect the changing needs of people at each life stage. In the interest of making the Food Guidance System consistent with the Nutrition Facts Panel on the food label, a caloric level of 2,000 kcal/day should be chosen. Then a series of Pyramids could be developed that are scaled up or down from that energy level to reflected the recommended dietary intake at each life stage.

In response to the question of devising core messages to communicate to the consumer versus using graphic representation, ASCN support using both methods, and using professional expertise to optimize the impact of both strategies. This expertise can be utilized by forming public private partnerships and ASCN would be happy to be involved with these partnerships.

The graphic should provide a "teachable moment" in and of itself and the core messages communicated in the educational materials should be consistent with those reflected in the graphic. A campaign targeting all nutrition educators throughout the government, industry and non-profit sectors should follow the release of the graphic and core messages so that they are coordinated and repeated as much as possible in any information that these nutrition educators convey to consumers.

The Dietary Guidelines for Americans and Food Guide Pyramid are intended to be useful tools for everyone, including people of varying cultural backgrounds and educational attainment. In addition to the information in these tools being consistent across all government agencies, ASCN recommends that the serving size should be uniform with the Nutrition Facts labels on food products. We must use every tool at our disposal to provide clear guidance on energy balance and weight control and this demands clear information on ingredients, calories, nutrients, and appropriate portion sizes across all government agencies.

In addition, the listing of food ingredients on product labels should be clear and easily understood by people with a low literacy level. For example, sugars currently appear on the label in many forms, and only the aficionado is capable of recognizing certain forms of the ingredients.

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The Food Guide Pyramid is intended as a valuable educational tool, however, when it comes to nutrition education, the budget speaks louder than words. To effectively communicate the core messages and to combat the growing epidemic of obesity, we need more money for urgently needed nutrition, energy balance and physical activity education. Forming public-private partnerships can help stretch the limited nutrition education funding.

Thank you again for this opportunity to comment.

Sincerely,

Samuel Klein

Samuel Klein, MD
President

Cc: ASCN Public Affairs Committee

SNE

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Society for Nutrition Education

Comments on the Center for Nutrition Policy and Promotion: Notice of Proposal for Food Guide Graphic Presentation and Consumer Education Materials; Opportunity for Public Comment

(*Federal Register*, Vol. 69, No. 133, July 13, 2004)

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Summary of the Comments

SNE supports the use of a government-endorsed graphic to communicate nutrition guidelines, and advocates a continued reliance on a generalized graphic to serve as an educational tool that provides an overview of healthful eating.

SNE does not support a graphic that solely "brands" the national food guidance system without it being an educational tool. A symbol only, without the educational message to complement it, would necessitate the development of multiple approaches and applications by state and/or other federal agencies, which would open the door for public confusion, misuse and misinterpretation.

SNE's specific recommendations for a new food guidance system are:

- Consistency among the food guidance system, the *Dietary Guidelines for Americans*, and FDA's Nutrition Facts system.
- Integration of a range of successful behavior modification and learning theories to form the basis for an effective food guidance system.
- A holistic approach with an emphasis on wellness and wholeness, living actively, eating in normal, balanced and nutritious ways and feeling good about oneself and others, rather than use of approaches primarily advocating calorie restriction, which usually leads to unhealthy attitudes regarding food.
- A qualitative food-based graphic to continue communication of the basic nutrition concepts of variety, proportionality, and moderation and to serve as a basis for goal definition.
- A graphic based on the minimum level of caloric intake used on the Nutrition Facts label in order to be consistent with food labels (currently 2,000 kcal). The amounts of each food group recommendation should be scaled up or down from this level for different caloric intakes.
- A separate or companion physical activity graphic that replicates the shape of the food guide graphic to emphasize the complementary nature of the two concepts.
- Core messages that are actionable and translatable to other languages frequently spoken in the United States and that are appropriate to those cultures;

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- A well planned introduction of the new system, targeting principle nutrition educators within all major federal nutrition mission areas and leading nutrition-related professional organizations, including, but not limited to:
    - U.S. Department of Agriculture's (USDA) Center for Nutrition Policy and Promotion (CNPP), Food and Nutrition Service (FNS), and Cooperative State Research, Education and Extension Service (CSREES);
    - U.S. Department of Health and Human Services' (DHHS) Administration on Aging (AOA), the Food and Drug Administration (FDA), the Health Resources and Services Administration (HRSA), the Centers for Disease Control (CDC);
    - U.S. Department of Education (DOE) Office of Elementary and Secondary Education (OESE).
    - Society for Nutrition Education (SNE), American Dietetics Association (ADA), and others.
- An ongoing evaluation of the Food Guidance System to measure effectiveness of the graphic, the messages, the distribution system, and the reach to consumers.

Responses Organized By Specific Questions in the *Federal Register*

A. Advantages and disadvantages of retaining current shape for graphic and other potential shapes to use as a representative of the overall food guidance system.

A.1. Is the high level of recognition that the pyramid shape has attained as a symbol of food guidance important in considering a shape for the new symbol?

The Food Guide Pyramid has high consumer identification as a graphic that represents what should be consumed for good eating. Before it was officially released in 1992, extensive research was done on potential graphics with low-income audiences and schoolchildren[1, 2]. These studies showed that although the pyramid design was not perfect, it was the best of the many designs that were tested[1, 2]. The consensus of SNE members was that SNE believes that it is important to build on the existing symbol due to recognition, familiarity and use by consumers, industry, and professional food and nutrition educators. The basic shape has been replicated by many countries world-wide[3]. Drastically changing the basic shape of the symbol at this time could lend credence to criticism of the current system, which might lead the public to conclude that the USDA has emitted unsubstantiated advice over the years[4]. Since the contemplated Food Guidance System and the Dietary Guidelines, as well as the Food Guide Pyramid currently in use, have been based on opinions of the best authoritative nutrition panels in the United States, this change would be a disservice to the nutrition education community and to the public in general.

A.2. How is a pyramid shape viewed in relation to food guidance?

According to information in the *Federal Register* announcement, recent USDA research shows that many consumers can identify one or more of the key messages of variety, moderation or balance and proportionality based on the pyramid shape[5]. The work of SNE educators with their clientele substantiates this USDA finding.

A.3. How could USDA best capitalize on the recognition the original Pyramid has attained?

The best way to capitalize on the recognition that the original pyramid has attained is by retaining the basic shape, but updating the graphic to make it look new. The Daily Intake Patterns developed by the CNPP that determine the food quantities recommended for the population groups in the graphic are based on foods without added fats and sugars. These are the foods that should be illustrated in the graphic and the accompanying educational materials. SNE recommends that no triangles or circles be included in the food groups, as they tend to confuse and complicate the message. The drawing should also include in greater abundance the foods that are most recommended.

A.4. Are there reasons that a different shape would be preferable?

If there is a substantial change in dietary advice, the basic shape could be changed. However, this action would risk confusing the public as to the validity of the previous advice.

A.5. What other shapes or graphic ideas might better communicate dietary guidance messages?

Use of a circle, pie chart and/or other graphics was considered by SNE. However, the consensus was that the drawbacks of these graphics outweighed the benefits. Considering the wide adoption of the pyramid shape/concept by other countries, it enjoys not only the support of our educators, but also the support of people from many different cultures[3].

B. Usefulness of the proposed strategies to highlight both motivational/ awareness and educational messages

Nutrition education is most effective when it is directed towards behavior and driven by theory[6]. The Transtheoretical Model (Stages of Change)[7], Social Cognitive Theory[8, 9] and the Social-Ecological Model[10] are the major theories used for program interventions in nutrition. The Health Belief Model[11] is fundamental to many community-based health education programs. However, no one model works in all situations[12]. Thus, SNE strongly advises that a range of effective behavior modification theories[10-15] form the basis for an effective Food Guidance System, and that they not be limited to just awareness and motivational aspects.

B.1. What are the pros and cons to implementing this strategy?

The Transtheoretical Model (Stages of Change Theory)[7] divides the readiness of a person to change into several stages. The first or lowest stage is precontemplation. People in precontemplation are not aware, or willing to admit, that a problem exists. At this initial stage the person may avoid new information, or they may, if properly approached, gain new understanding, or feedback about the problem behavior. At this point a person needs to acknowledge that a problem exists and to be motivated to make a change. Social Cognitive Theory indicates that the person must feel that the change is necessary and possible to achieve[8, 9]. Once a person is motivated, then he or she needs specific, small, behaviorally-focused goals that will move him or her toward the overall goal behavior depicted by the food guide.

One criticism of the current Food Guide Pyramid is that the U.S. population has not achieved healthful eating behavior, and therefore the graphic is somehow flawed as a nutrition education tool. However, the actual implementation of the Pyramid, the inclusion of numbers of servings on the graphic, or the foods depicted on the graphic, rather than the Pyramid itself, may be strong contributing factors to this phenomenon. Thus, SNE supports the concept of the new approach being a "system" with multiple educational components and channels, including background materials for implementers, with the flexibility to build in varying motivational techniques and messages applicable to specific audiences.

B.2. How can these elements be designed to best complement each other?

Motivational factors may demonstrate the benefits and decrease the barriers of healthful eating, or offer insight into the increased threats to not eating healthfully. The latter component involves individuals accepting that they may be at higher risk for diseases or further severe consequences if they are not practicing healthful eating habits. A person should also be able to see that there will be positive outcomes in taking the recommended action.

Other motivational aspects include:

- Eating more healthfully can include delicious food prepared in attractive ways;
- Eating more healthfully can include enjoyable dining experiences and does not imply that a person will be deprived of foods or food preparations that are important to them;
- Eating more healthfully can be done in a way that is glamorous, quick and makes efficient use of available time; and,
- Eating more healthfully can be an opportunity for parents to encourage health-promoting food selection and preparation as an opportunity for education and family interaction.

SNE finds motivational and awareness factors crucial to achieving behavior change in individuals.

B.3. Would other strategies better communicate the multiple consumer messages of the food guidance system?

In order to consciously change behavior, individuals must have a clear concept of: what defines the desirable behavior, i.e. what is the model or goal behavior that is sought[13, 14]; understand that the change is possible[8, 9]; and, be motivated to adopt the desired behavior[11]. This multi-faceted strategy should be the central goal of the food graphic and the Food Guidance System.

When a clear concept of the desirable behavior is developed, a person then can develop a strategy that involves cognitive, affective, and psychomotor areas that promote the behavior. To change behavior, people must first be aware of what they are doing right and then feel good about it. This behavior then forms a starting point to build an even more desirable set of behaviors[16]. Examples of educational approaches that incorporate positive feedback based on individual behaviors should be included in the accompanying literature.

Behavior and problems can differ from person to person, and from community to community, so solutions must be tailored to the specifics of each situation.

Prior to applying motivational/awareness aspects it is essential to identify the true nature of the problem. For example, in Bangladesh[17], where vegetable gardens were abundant, the mothers were not feeding the vegetables that they grew to their children. A study of the situation showed that mothers thought that their children could not assimilate nutrients from vegetables. The intervention was then focused on finding adequate ways to convince the mothers that their children did, in fact, assimilate nutrients from the garden vegetables, although their fecal matter was green instead of the brown color observed when they did not eat vegetables. In Africa, a similar observation was made involving children deficient in vitamin A[18]. However, in this case it was found that the machinery used to express oil was too complicated for local technicians to fix. Although vitamin A was abundant in the foods available, it was not absorbed because of a lack of fat in the food supply (since fat is necessary for vitamin A absorption). Introducing less complicated machinery alleviated the situation. In both these cases, at the macro level the problem was the same, i.e., deficiency of vitamin A. However, the specifics of the situation dictated very different solutions to the problem.

To summarize the situation:

- In order to be effective, the ultimate goal (achieving good nutrition) must be clear.
- Each situation must then be evaluated as to how a population or an individual can be motivated best to move in the direction of the goal.

While keeping the core messages simple, background materials for educators, i.e. public health professionals, nutrition educators, teachers, etc., should include more detailed information focusing on employing motivational techniques that can be adapted for meeting the varying needs of intended target groups.

C. Advantages and disadvantages of the plan to individualize guidance in contrast to "generalized" messages.

While SNE appreciates the concern about the increase in obesity in the United States and worldwide, many of our members have come to understand that the best way to confront this situation is by using the "health-at-any-size" paradigm. This approach helps to prevent disordered eating patterns such as anorexia nervosa and bulimia, as well as over-consumption, with a focus on wellness and wholeness, i.e., living actively, eating in normal, balanced and nutritious ways and feeling good about oneself and others. The basic idea is to be spiritually, mentally, and physically healthy, rather than striving for the less appropriate goal of being thin. When health instead of thinness is the goal, people can feel good about improving their diets or increasing their activity levels no matter what their weight. Positive feelings can fuel the self-efficacy needed to make the healthful habits permanent. Diet-based methods to treat obesity result in 80% [19] to 100% [20] failure to maintain the lost weight over a two to five year period after termination of the diet.

Food guides and the educational programs based on them have always focused on assuring adequate nutrient intake if foods are selected according to the groups included in the guide. This fundamental message must be the focus of the food guidance system designed. The questions whose answers must be assured are:

- Does the food guide depict goal behavior that assures adequate nutrient intake if the advice is followed?
- Does the guidance system lead to the implementation of this behavior?

C.1. How can educational materials best be designed to provide this more specific guidance?

Clearly defined goal behavior must be central to the food guidance system. The specifics for each individual are then conceptualized within the overall general framework of what is needed for everyone. In this way a strong conceptual framework is constructed on which to accommodate individual differences[13].

The Daily Intake Patterns form the basis for the food guide. SNE has previously recommended that in the interest of making the translation of the general guidance of the food guide to more specific guidance simpler, one specific caloric level be selected for illustration. If

this were done, the Daily Intake Patterns could then be scaled up or down from that level to accommodate the specific needs of various age and caloric groups. SNE strongly recommends consistency among the Food Guidance System, the Dietary Guidelines and the Nutrition Facts Label. With this in mind, SNE recommends choosing a 2,000 kcal level, or whichever caloric level is consistent with the Nutrition Facts Label.

Consistency among the Food Guidance System, the Dietary Guidelines and the Nutrition Facts Label means that only one set of measurements would need to be memorized for each group or food. However, the measurements would need to be based on the highest relative needs for a particular age group and then scaled up or down for different caloric needs. A small child eats approximately half of what an adult eats in every food group, with the possible exception of the milk group, and the amounts should be modified accordingly. In addition, the basic food guidance pattern would have to be designed in such a way that scaling would include the nutrients needed for the various sex, age and activity levels that are contemplated. The advantage of the scaling system in terms of food composition is that it eliminates the need to adjust the patterns by established increments, e.g., cups, ounces, etc., and provides a means for more flexible advice that can be applied in families or other groups, depending on their individual needs.

Table A illustrates an example of the problems inherent in the Daily Intake Patterns. According to the Daily Intake Patterns there are five sub-groups of vegetables. Table A gives the vegetable sub-groups recommended for a hypothetical four-person family. In this table it can be seen that the mother's Daily Intake Pattern (based on 1,800 kcal) presumably falls somewhere between the recommendation for the daughter and the father, but it is not clear how many servings of each group would be recommended. The implication is that half serving sizes would need to be measured for some of the sub-groups.

As Table A indicates, the number of servings per week varies from one caloric level to the next. Most people would interpret this as meaning that they had to cook dark green vegetables every day for the son, and only four days for the daughter. The recommendations, interpreted in this way, are impossible to follow. It would be much easier to state that the standard amount to be consumed is ½ cup of deep green vegetables four times a week. If you need to eat more calories, consume more of every food group; if you need to eat fewer calories, eat less from every group. This is information that the average consumer can more readily understand.

Table A

	1600 Kcal. (daughter 9-13)		1800 Kcal. (mother 31-50)	2200 kcal (father: 31-50)		2800 kcal (son: 14-18)	
	Servings per week	% servings per week	Servings per week	Servings per week	% servings per week	Servings per week	% servings per week
dark-green (1)	4	19.1%	?	6	21.5%	7	16.6%
deep-yellow (2)	3	14.4%	?	4	14.3%	6	14.3%
legumes (3)	5	23.7%	?	6	21.5%	7	16.6%
starchy (4)	4	19.1%	?	5	17.8%	9	21.5%
other (5)	5	23.7%	?	7	25.0%	13	30.9%
	21	100.0%		28	100.0%	42	100.0%
Overall recommendation	3/day		?	4/day		6/day	

(1) examples are: broccoli, spinach, romaine, collard, turnip and mustard greens
(2) examples are: carrots, sweet potatoes, winter squash, pumpkin
(3) examples are: pinto beans, lentils, chickpeas, tofu
(4) examples are: white potatoes, corn, green peas
(5) examples are: tomatoes, tomato juice, lettuce, green beans, onions

C.2. What are the pros and cons of attempting to provide individualized rather than general guidance?

Both general guidance and specific messages are needed, but when they are needed and how they are implemented depends on the circumstances. General messages are needed to unify the overriding message and form a conceptual basis on which to add the specifics that are necessary for each individual. General messages are also needed for program planning and evaluation of program effectiveness.

The Food Guidance System, as currently proposed by the CNPP, is divided into age and gender groups. For each group, a particular caloric level has been established, which is used to provide specific quantities of each food group for a person of a particular age and gender. However, this system ignores some basic, but important, facts – people of the same age and gender are not all the same size, with the same level of physical activity and/or the same caloric needs.

Pros

Individualized advice can work if it is based on a clear conceptual goal and one food grouping system that can be scaled up or down depending on individual needs.

Cons

Individualized guidance as currently contemplated in the materials published by the CNPP is too complicated for people to follow in their daily lives.

C.3. What guidance messages are appropriate as general messages

Once the conceptual framework given in Section D is established, SNE suggests the following for use as general messages:

- Eat a variety of nutrient-rich foods from each food group to help ensure good nutrition and health.
- Eat three or more meals daily, at about the same time every day.
  - Eat a morning meal that includes food from at least three of the food groups.
  - At the mid-day meal, and in the evening meal, include foods from all food groups.
  - If you eat between-meal snacks, include foods from two of the food groups.
- Eat slowly. Stop eating before you are overly full.
- Try a different food or a new way of preparing a healthful food every week from a food group you need to eat more from.
- Choose whole grains for at least half of your choices from the grains and potatoes group.
- Use fats, salt and sugars in small amounts. Depend more on spices and herbs to give rich flavor to your foods.
- You can start today. Replace a less healthful food you eat with a more healthful one.
- Have a specific place or places in your house, away from the television or other distraction, where you and your family eat[21].
- Make sure that your daily routine includes adequate physical activity.

D. Advantages and disadvantages of the planned focus on core messages in contrast to use of a graphic to represent educational messages

D.1. Is this plan feasible?

Many nutrition education programs have used the Food Guide Pyramid as an icon for their nutrition education efforts. These programs have then featured one of the dietary guidelines or some other aspect of the basic nutrition messages. Therefore, an icon with core messages is feasible.

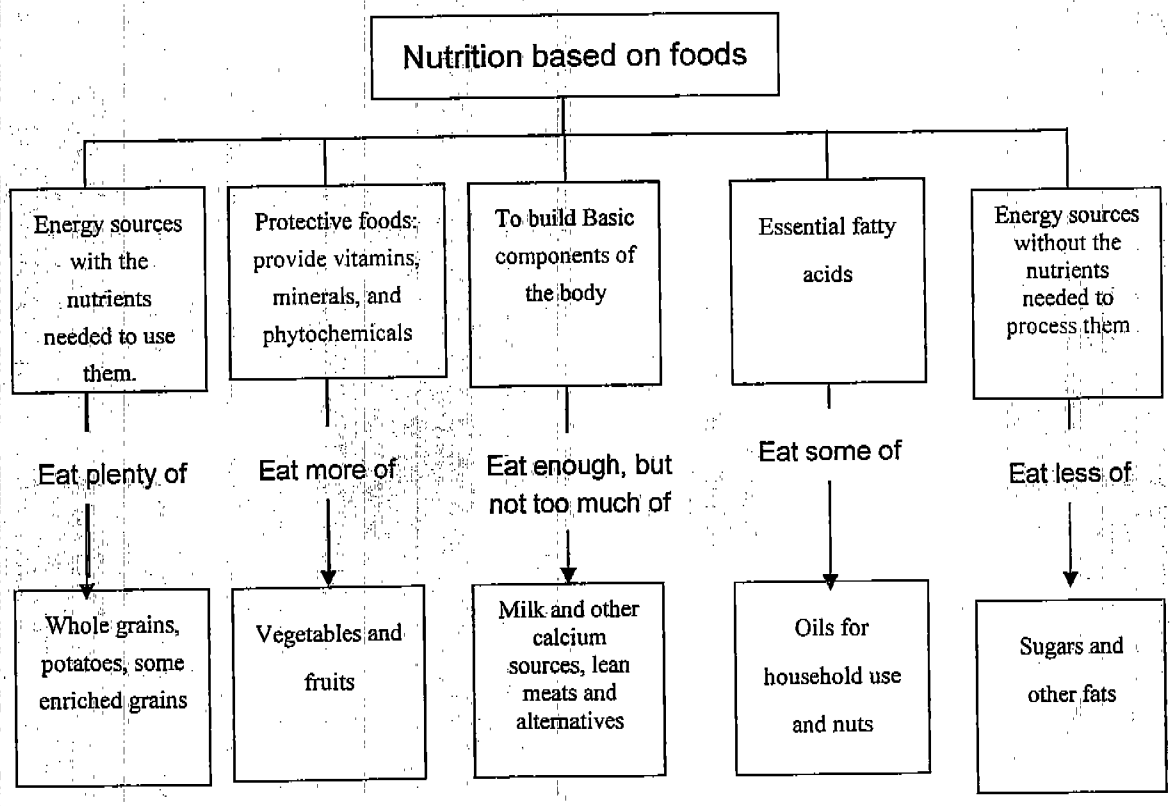
While SNE concedes that it is feasible to use an icon with core messages, SNE is convinced that this approach is not advisable. Learning and concept formation theory indicate that in order to make sense of the world people need an adequate conceptual structure to which they can add new information. Cognitive structure is hierarchically organized, with concepts in the cognitive structure undergoing progressive differentiation[13, 14]. A graphic, such as the Food Guide Pyramid, establishes this hierarchy. Organization-of-documents theory establishes that such a graphic should have no more than five categories, so that all can be remembered[22]. The psychological literature has established that working memory can deal with no more than seven categories[23].

D.2. Is it preferable to using the graphic to communicate essential food guidance messages?

SNE advocates a distinctive graphic that illustrates basic nutritional advice and conveys the messages of balance, proportionality and variety based on food groups instead of merely an icon. This graphic should be designed to illustrate goal behavior. If it is distinctive enough, it could also be used as an icon for the food guidance system, as some have done with the existing Food Guide Pyramid graphic.

As can be seen in Illustration 1, a well planned hierarchy, based on nutrient functions, can be transformed into foods, bypassing the need to mention the complicated names and concepts that nutrient recommendations elicit. The beauty of using foods as the basic components for recommendations is that although they are renowned for certain characteristics, they also have other nutrients in smaller amounts that complement those that are of most interest[24]. This means that when we add up the nutrients based on basic serving sizes, as is done with the Dietary Intake Patterns, the pattern of foods recommended approximates the Recommended Dietary Allowances for a day.

Illustration 1 [1]



[1] Oils used by the food industry have very different fatty acid composition than those available for household use

These five basic groups then become the tiers of the pyramid, as was done in the original drawing, with the exception of the oils for household use and nuts group. By adding this group, the problem of explaining fats and oils becomes manageable. By placing potatoes in the grains groups, all the major sources of nutrient-containing starches that are used interchangeably in planning meals are put together, while those carbohydrates that do not provide the nutrients necessary to process the energy they contain are properly grouped in the sugars and fats category. Milk is used in this conceptual framework instead of non-fat or low-fat milk so that it applies to everyone, including children less than two years old. While this organization of concepts does not explain the whole story, it does give a framework within which the qualifying statements can be placed.

Another advantage of this system is that it illustrates from which groups one should eat more of, and from which groups one should eat less. This type of hierarchy helps guide educators working with consumers in the direction of emphasizing that that if a person is to eat more whole grains, potatoes and enriched grains, and fruits and vegetables, that person must eat fewer sugars, fats and meats or meat alternatives, to keep his or her caloric intake constant. It gives a conceptual framework that can be used by consumers to organize their understanding of nutrition.

Since we are most concerned about a conceptual framework based on foods, physical activity has not been included. Physical activity is another complex idea that includes work place activity as well as leisure activity. Physical activity cannot be adequately summarized by a simple icon, such as a runner, and it cannot be easily added to the framework designed above. Thus trying to include physical activity would greatly complicate the guidance system's healthy food consumption message.

Water is essential for health, but comes from many food and beverage sources. The 2004 Institute of Medicine (IOM) Dietary Reference Intakes report defines total water intake as that consumed from all foods and beverages in addition to plain water. Adequate Intake levels are defined in terms of total water intake, as opposed to drinking water[25]. This means that including water as an additional component of the hierarchy and the graphic does not convey a useful concept. Food guides from other countries that have tried to include a beverage group have been unable to arrive at a definition of beverages that is conceptually easy to understand and makes sense scientifically[3]. In the Food Guide Pyramid, nutritive beverages are included in their appropriate food groups and SNE recommends this approach be retained.

D.3. <u>What advantages and disadvantages are there in using the graphic as a symbol to represent the system rather than as an educational tool?</u>

<u>Advantages:</u>

The advantage of using a logo or icon is that there is less text. SNE recommends a graphic that is as distinctive as the Food Guide Pyramid, but does not include the portion information on the graphic. (This would be explained in the accompanying materials). This graphic then could be used for teaching the basic nutrition concepts, as well as used as an icon for the Food Guidance System.

Disadvantages:

The main disadvantages of using only an icon are: 1) there is no specific graphic summary of the goal behavior desired and 2) there is no teaching tool that unifies the guidance system. An icon-only approach makes it much more difficult for people to remember the basic concepts that are being taught. It is the opinion of SNE that designing the graphic not as a teaching tool will increase the chance of misinterpretation and misuse. Also, if the USDA does not provide a graphic that can be used for teaching basic concepts, it is probable that other federal, state and local agencies will create their own versions. This would result in a great deal of confusion. If a graphic is designed that clearly reflects the proportions to be consumed from the food groups recommended, misinterpretation of the graphic would be much less likely, even though accompanying materials may not be readily available.

E. Key components for effective interactive educational tools.

As a basis for this section, SNE used the following assumptions:

- Some type of pyramidal graphic will be retained.
- 12 recommended calorie levels will be included in the interactive educational tool.
- The Interactive Healthy Eating Index (IHEI) as the model (with the understanding that it needs to be modified to reflect added sugars and dietary fiber).
- The interactive tool will be consistent with the food graphic, but go far beyond the basic generalities that the food graphic depicts. (Note: The people who access this tool will be looking for more in-depth information and capable of understanding more than the generalities of the basic graphic.)

E.1. What makes an effective personalized or interactive tool?

- It is individualized to the person's gender, age, size, activity level, and reproductive status.
- It is easy to access, enter data, and use.
- There are visuals and graphics of serving sizes.
- It is fun to use for a variety of ages and groups, but still efficient for use by researchers who need to score the Interactive Healthy Eating Index (IHEI) and food group servings for large samples.
- Common foods from diverse ethnic groups in the U.S are graphically represented and found in the database.

E.2. What information should be provided to help consumers who seek only basic information on appropriate food choices and amounts?

- People should be able to obtain basic food-group-based dietary pattern recommendations individualized for their age, gender, reproductive status, height, weight, and activity level (sedentary, moderately active, very active).

- The graphic, if presented as an interactive tool, should illustrate the types and amounts of food recommended for a consumer's demographic data. This could be done by showing the reference serving size and then the amount that should be added or subtracted to meet the needs of the individual based on the calculated caloric needs. However, since the metabolic rate of each individual varies, as well as the activity level, such information will always be an approximation. The program should be clear that this is the case.
- There should be a graphic description of an individual's food intake in comparison to the recommended dietary guidance.
- Food groupings and nutrient data must be added for additional mixed foods and currently consumed foods.
- What counts as one serving or basic food unit must be clearly depicted.

E.3. <u>What information should be added for consumers that want to plan and assess their diets?</u>

- The IHEI should be improved by adding sugar and dietary fiber as two new major components to the current 10 guidance components.
- Units for nutrients must include the option of either those present on the Nutrition Facts Label or those in the Dietary Reference Intakes (DRI). Thus, for several nutrients two sets of values will be presented: Vitamins A, D, and E.
- Currently consumed foods and foods commonly consumed by our diverse ethnic populations must be added. For example, from where can vegans get vitamin B-12, calcium and Vitamin D?
- When a consumer enters the Website or CD Rom, a question should be asked regarding whether weight loss is desired. If not, then no other comments about weight should appear. If yes, then recommendations might be made regarding slow caloric reduction of food and as well as increased activity expenditure to lose 1-2 pounds per week and the importance of eating for good health, not for weight loss. A statement that health can be achieved at any size with good food and activity choices should be made. If the consumer has a BMI less than 20, then some caution about further weight loss should appear.

E.4. <u>What elements should be developed to help consumers personalize their diets?</u>

- There should be a graphic depiction of basic units (servings and serving sizes) with modifications necessary for the particular consumer's demographic data and daily food intake. This graphic should depict a balanced or imbalanced pyramid, or an imbalanced image of whatever graphic is adopted, including a comparison with the number of servings of fats and sugars recommended for that person's energy level.
- The IHIE must be expanded to include one component each for fiber and for added sugars.
- Appropriate serving sizes for toddlers and preschool children, as recommended by the

Food and Nutrition Service (FNS) programs of Child and Adult Care Food Program (CACFP) and Special Supplemental Nutrition Program for Women, Infants and Children (WIC), and Health Resources and Services Administration (HRSA) such as Head Start, must be added to the IHEI so it is appropriate for professionals to use with preschoolers. As it currently stands, the Food Guide Pyramid for Children and the Food and Nutrition Service guidelines group foods differently, creating extreme difficulty when using the Children's Food Guide Pyramid within the context of the FNS programs.

E.5. What caveats should be considered in developing individualized guidance?

- Add "This Website is not intended as nutritional counseling for medical conditions. This information should be provided by health care professionals, such as physicians and dietitians."
- Choose frequently food and beverages rich in nutrients in comparison to the calories provided, i.e., nutrient dense foods.
- List other reputable links for additional nutrition and health information.

F. Channels of delivery for the Food Guidance System

F.1. Once the new Food Guidance System is released, what are the most efficient and effective ways to reach consumers?

A multi-channel roll-out with varied government and community-based agencies/media/trade organizations/industry partners/CDC and schools is needed. Professional and community organizations should include, but not be limited to: the American Dietetic Association, American Public Health Association, American Medical Association, American Heart Association, Society for Nutrition Education, School Nutrition Association, Boys and Girls Clubs, and Action for Healthy Kids. A concerted outreach and marketing campaign through Cooperative Extension, public schools, WIC, Head Start and public health will "saturate" the public sector. All government agencies should collaborate and provide a joint announcement of the new system (USDA/DHHS). Industry should be encouraged to link their food items to the graphic. In addition, the Food Guidance System should be introduced at nutrition, medical and science meetings over a two-year period.

To disseminate the system consistently over time, spokespersons or intermediaries need to be available to conduct trainings and answer questions from the industry, medical professional groups, i.e., MDs, RDs, nurses, dentists, and allied health professionals, and consumers on the new system.

The new system can be marketed through all national, state and local newspapers and TV, including targeting culinary programs/chefs on food channel programs, radio and cable stations and on the web. Trade organizations should broadly disseminate the new system. A roll-out during March, National Nutrition Month, would be very effective. A Transtheoretical model should be the basis for the public awareness campaigns. This means that local people

should coordinate with food donation agencies, supermarkets and other food outlets to assure that the recommended foods are available to the people who will receive the messages.

Training professionals on the new system and providing supporting educational materials for school-age youth and adults is critical. In addition, guidelines for industry and consumer use are important. Industry should be encouraged to use the system for promotion of healthy eating.

F.2. Are internet-based and print educational materials most accessible to educators (information multipliers) and consumers?

All publications need to be available in hard copy and on-line. Limited-resource families often miss materials that are available solely on-line. Educators need access to printed copies of graphics and brochures and printing should not be short-changed in favor of online publishing. Posters, simple brochures, CD, DVD, Internet website, kiosk are recommended.

Cultural adaptation including bilingual publication in other languages is critical for broad dissemination, but the best way to implement this would be to have USDA/CNPP issue development standards for cultural graphics, and then let professionals adapt the materials to best suit their target audiences. These guidelines should include statements that they have studied the nutrient content of the foods included in the new or modified graphic to assure that it conforms to the standards used for the original graphic. The culturally adapted guide should include foods that are commonly used by the group and grouped according to cultural standards. To be as explicit as the food guide developed by the USDA/HHS, prepared dishes of mixed foods should not be part of the graphic. As with the graphic that will come out of this process, people will have to understand that they can combine the foods in food preparation and do not have to serve each food separately. The guide should be evaluated by representatives of the target populations so that they can assess if others can understand and follow the system.

F.3. Are there audiences that will not be able to access information on the internet?

Downloading the food guide pyramid to copy does not work for many educators and consumers. Pre-printed multi-color copies should be provided at low cost to reach multiple audiences. Multicolor documents do not print well when duplicated and duplicating is preferred by smaller agencies. Therefore the teaching materials should also be prepared as simple black and white line versions, or grayscales, on slicks so that they can be successfully duplicated. Downloading might turn out to cost programs such as WIC, FNS, and EFNEP more than they currently spend because printer cartridges and paper to print their own food guides are more costly than if they were mass-produced on a national scale.

F.4. What alternatives are available for reaching these audiences?

Marketing the new graphic on supermarket register tapes, grocery bags and through non-food industry such as banks, insurance companies and utility companies will allow for broad dissemination. Major industry or payroll stuffers with Social Security checks can help with marketing the new materials. Other non-traditional sites for dissemination of nutrition education information could be explored. For example, the public could receive Food Guide System information where people have to wait in queues, such as drivers' license offices and banks.

Additional Comments: Evaluation of the Food Guidance System

Currently there is no Federal requirement for either process or outcome evaluation of the USDA Food Guidance System. Without this requirement, it may be difficult to devote resources for this purpose. Nevertheless, evaluation is essential in assessing the outcomes of the USDA Food Guidance System and its implementation, and providing insights for improvement. Given the public health costs of poor diets and the importance of improving diet and health, it is a false economy to ignore evaluation. Important aspects of evaluation include:

- Process evaluation to answer questions such as the following: Is the Food Guidance System being implemented in nutrition education and food assistance programs? One of the current problems is inconsistency between the food groupings in the Children's Food Guide Pyramid and the Child and Adult Care Food Program (CACFP) guidelines. This makes if difficult to use the Food Guide Pyramid with that program. A process evaluation would assess to what extent these kinds of barriers have been identified and overcome. It would also assess diffusions of USDA Food Guidance System messages.
- Effectiveness of implementation activities in changing dietary behavior.
- Effects of changed behavior on nutritional status and health.

For evaluation to even be possible, it is necessary to maintain an adequate national nutrition monitoring system. Food and nutrient databases must be complete and up-to-date. National data on food consumption, food expenditure, diet-health knowledge, and health status need to be collected regularly. Making data available in a timely manner to researchers at universities and other private sectors would encourage more policy-oriented research and evaluation, thus adding to the information base.

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INTERFRESH

A World of Fresh Ideas!

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August 26, 2004

In regards to: Food Guide Pyramid
Food Guide Pyramid Reassessment Team
USDA Center for Nutrition Policy, and Promotion
3101 Park Center Drive, Room 1034
Alexandria, VA 22302

As America grows ever fatter and more sedentary, there has never been a more important time to urge consumers to enrich their diets with more fruits and vegetables. As you are aware, there is a plethora of science-based research indicating the *extreme* health benefits of a diet rich in fruits and vegetables. As you compile the new food pyramid guidelines for release later this year, I cannot urge you strongly enough to move fruits and vegetables to the very base of the pyramid, and encourage 5-13 servings per day. We feel strongly that this will send a new and clear message to America, and help move the country toward a healthier weight, and life.

Please retain the current pyramid graphic, and move fruits and vegetables to the very bottom. It is my hope that America may begin to understand that we are falling far short of a healthy diet, and that your new guidelines will lead us to a healthier place.

Best regards,

Chris Puentes
President
Interfresh, Inc.

Telephone • Fullerton, CA • Fax

California
AVOCADO COMMISSION

MICHELLE P. SPELMAN
Marketing Director

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August 25, 2004

Food Guide Pyramid Reassessment Team
USDA Center for Nutrition Policy and Promotion
3101 Park Center Drive, Room 1034
Alexandria, VA 22302

RE: CAC Comments in response to Federal Register 04-15710, Vol. 69, No. 133

Dear Food Guide Pyramid Reassessment Team:

On behalf of the California Avocado Commission, which represents 6,500 California avocado growers and one of the 20 most commonly consumed fruits in America[1], please accept these comments on the proposed Food Guidance System.

As you work to develop a revised graphic that provides consumers with a guide to healthful eating, we urge you to prominently display nutrient-dense avocados along with other health-promoting fruits and vegetables in the new graphic. The latest scientific findings reveal the following about avocados:

- Avocados are a naturally nutrient-dense fruit. Ounce-per-ounce, avocados contain more of six minerals (potassium, magnesium, iron, zinc, phosphorus, and copper), seven vitamins (folate, Vitamin E, Vitamin K, riboflavin, niacin, pantothenic acid, and biotin), and three phytochemicals (lutein, beta-sitosterol, and glutathione) than any of the 20 most frequently consumed raw fruits.[2-5]

- Uniquely, avocados are one of few fruits that provide "good" fats. Unsaturated fats like monounsaturated fat found in avocados[6], have been linked to a reduced risk of heart disease, cancer and diabetes.[7-10] In addition to monounsaturated fatty acids, avocados also contain heart-healthy omega-3 fatty acid.

- Replacing "bad" fats with "good" fats, increasing omega-3 fatty acid intake and consuming a diet rich in fruits and vegetables are the three steps to a healthier heart. California avocados offer an important nutrient profile that meets all three.

Irvine, CA ■ Fax ■ www.avocado.org

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- New research from Ohio State University shows that the natural fat content in avocados increases carotenoid absorption from other fruits and vegetables, which can further protect the body from disease.

Regarding the Topics of Particular Interest to CNPP for Comments, we offer the following:

Retaining Current Shape of Graphic:
It is important to provide a graphic that is familiar to consumers. We are supportive of maintaining the pyramid shape because it is well recognized, but recommend that it be designed in line with the expected recommendation from the Dietary Guidelines Advisory Committee for consumers to eat at least 5 to 13 servings of fruits and vegetables a day. With the increased emphasis, the graphic should have a foundation of more fruits and vegetables, including nutrient-dense avocados. Substituting fruits and vegetables for refined grains at the base of the pyramid will be beneficial for the overall nutritional needs of consumers by providing more vitamins, minerals, fiber and phytochemicals. Given the scientific support for healthy fats, it is important for the new Food Guide to distinguish between saturated fats and trans fats vs. heart healthy unsaturated fats.

Proposed Strategies to Highlight Both Motivational/Awareness and Educational Messages:
Maintaining the pyramid as a symbol for health and nutrition will be effective as long as it is perceived as the starting point of an entire system tailored to meet appropriate activity and nutrition goals. A possible slogan to consider: Food Pyramid: The First Step Towards a Healthier Life.

When developing the new system, it will be important to encourage quality food choices in the Daily Food Intake Patterns. When listing the appropriate amounts for different consumers, we encourage you to recommend selecting nutrient - dense foods first. This could prevent consumers from continuing to over indulge on "empty calorie" foods that do not satisfy appetites and provide little source of nutrients. Providing satisfaction and taste, avocados are a nutrient-dense fruit, top-ranking in key nutrients that can help prevent disease.

The Food Guidance system should take an overall wellness approach to obtaining health and encourage consumers to use the pyramid as a guide for nutritious food selection and appropriate serving size. Communicating the benefits of regular exercise along with a nutritious diet should be a major emphasis of the new Food Guidance System. Calories count and consumers need to realize that nutritious foods will serve their bodies well. In fact, recent research published in *Obesity Research* suggests that exercise burns monounsaturated fat stored in the body more rapidly than saturated fat. Thus, for consumers who want to burn off fat, substituting healthier monounsaturated

fat from avocados for the saturated fats found in meat and dairy may be beneficial.[11]

Individualize Guidance in Contrast to "Generalized" Messages:
We agree that "one size does not fit all" when encouraging consumers to maintain a healthy body weight. Thus, the new Food Guidance System should be tailored to specific energy intake and physical activity levels. Further, all consumers could benefit from a general message encouraging them to eat a balanced diet of nutrient-dense foods including: fruits and vegetables like avocados, whole grains, and lean protein sources.

Planned Focus on Core Messages in Contrast to Graphic Use:
We agree that the Food Guidance System cannot communicate to everyone in one graphic. Therefore, the revised pyramid could evolve as more of a symbol of nutrient-dense foods that consumers can select from as they evaluate the core messages tailored to their specific needs. If you implement a tailored core message system, it should be clearly noted on the graphic that it is not a stand alone piece.

Key Components for Effective Interactive Educational Tools:
As you develop the interactive tools for consumers to utilize as part of the Food Guidance System, we encourage you to provide databases that are harmonized with FDA's Nutrition Facts Labels to minimize confusion and improve dietary habits. Updated values from the SR-16, SR-17 databases should be incorporated into the databases for consumers. A guide could monitor food intake and quality food selection, encouraging consumers to select nutrient-dense foods like avocados to satisfy hunger.

Delivery Channels:
We concur that an Internet-based distribution complemented by print materials distributed to schools and nutrition educators will be most effective. If possible, materials should be designed specifically for children, men and women.

We are encouraged by CNPP's emphasis on educating consumers to keep caloric intake balanced with energy expenditure to prevent weight gain and maintain a healthy weight. We are also encouraged by the promotion of nutrient -dense foods.

Thank you for considering our comments for the new Food Guidance System. In closing, we would like to point out that avocados are included in dietary programs from many of the world's leading nutrition organizations including: USDA's Dietary Guidelines for Americans, National Cancer Institute's 5 A Day Program, American Diabetes Association's Diabetes Food Pyramid, The Mediterranean Diet Pyramid and UCLA's California Cuisine Pyramid. **We urge USDA to prominently display avocados in the new Food Guidance System to emphasize the importance of consuming a variety of health-promoting fruits and vegetables.**

Sincerely,

Michelle Spelman
Marketing Director

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AUG 27 2004

The food issues think tank – promoting healthful, traditional and sustainable food choices

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To: Center for Nutrition Policy and Promotion
Re: Food Guidance System
(Notice, Federal Register 2004, page 42030, July 13, 2004
Fr: Oldways Preservation Trust

Thank you for your clear-language Federal Register notice soliciting comments on your proposed new Food Guidance System. Such direct language is truly a breath of fresh air.

This comment from Oldways has 4 sections that respond to your solicitation:

1. Rationale of Oldways comment (your sec. III).
2. Key concept underlying our proposed revision ("balance").
3. Concept for a compelling graphic.
4. Language for the requested "slogan" to accompany the graphic.

1. Rationale of Oldways Comment:

Your Notice forthrightly says: "Most Americans are familiar with the Food Guide Pyramid, but few follow its recommendations in their entirety."

A 1996 Cornell study provides data to support this: "Although 58 percent of Americans say they have heard of the USDA *Food Guide Pyramid*, only 13 percent say they understand it."

Much current anecdotal evidence makes clear that this 58 percent "recognition" of the Food Guide Pyramid is considerably higher in 2004, but your conclusion that "few follow its recommendations" remains accurate.

This disconnect raises many difficult issues to do with developing techniques that will be effective in bettering consumer food and drink consumption behaviors. One issue, however, can be disposed of relatively simply. This is whether to retain the classic pyramid shape for a food guide graphic, or to discard it.

The 1992 Bell Associates Report to USDA and HHS titled "Dietary Guidance Graphic Alternatives" was the evaluation that provided the basis for the pyramid shape of the 1992 Food Guide graphic. The analyses and conclusions of this Bell Associates remain valid today.

The Bell Report concludes: "The pyramid graphic was found to be most effective in conveying the messages of moderation and proportionality. The bowl design was found to be far less effective in promoting the moderation and proportionality messages, but did illustrate the variety messages somewhat better than the pyramid."

Pyramids convey durability and solidity. They are specifically proportionate, sitting on a broad base and ascending to a narrow peak. They allow for additional graphics in the spaces outside both sloping sides. They accommodate the regularity of the square or rectangle shape that best fits posters, newspapers, pamphlets, books and even television and computer screens.

Pyramids are, consequently, almost perfectly suited to a graphical representation of a food guide, because a key premise of food guides is that they convey clear understandings of proportionality. This is central to the concept of

assisting consumers to make sound food and drink choices that promote long-term health.

The rationale of this comment, then, is that the principle of a hierarchical pyramid shape remains the best hope for conveying graphically the written content of dietary guidelines.

It is worth noting the universality of this pyramid concept: many other countries have adopted a pyramid shape, or adapted its proportionality principles to familiar cultural icons. The Chinese food guide, for example, is in the shape of a pagoda.

2. "Balance" is key concept of Oldways proposed pyramid revision.

In order to motivate consumers effectively and successfully to follow dietary guidance, the graphic representation of the guidance must embrace a basket of what your Notice describes as "core messages."

The Notice describes these core messages as "directional statements" that are "intended to result in behavioral changes" and that will:

(a) "balance caloric intake with energy expenditure,"
(b) "promote nutrient dense food choices," and
(c) "lower chronic disease risks by lowering intake of saturated fats" and "other food components that are often consumed in excessive amounts."

In the interests of increasing the odds that the new Food Guide's graphics are successful in motivating changes in population-wide consumption behaviors, we urge you to simplify this construct. Because the "directional statements" are trying to do too much, it is likely that they will actually do too little, and will find themselves in a few years where the 1992 Food Guide Pyramid now finds itself: ineffective in moving Americans to healthy eating patterns.

Instead, we urge you to focus on a single concept. The only successful government campaign to modify American's eating habits was food rationing during World War II. The idea was simple: our fighting men and women needed good food, which meant those at home had to sacrifice. The years of food rationing campaigns played to this single theme: support the war effort.

The campaign against today's overweight and obesity, and unhealthy junk food, is often described as "The War Against Obesity." Unfortunately, the evidence is clear and overwhelming that we are losing this war. So, we must develop and implement new and tightly-focused strategies that have a high likelihood of success.

Oldways recommends that this new strategy focus on concept of "balance." Among the reasons for balance are these:

a. The need to balance calories in and calories out is not challenged.
b. A sound balance among macronutrients is not challenged, although the fine points of the most healthful proportions among macronutrients are a bitter battleground among promoters of competing theories, diets, diet books, and products).
c. A balance among food groups is not challenged.
d. A balance between desire for alcohol and sensible use of alcohol in not seriously challenged.
e. A balance in use of sugar and salt is not challenged.

In other words, balance is the key central concept for healthy consumption patterns. If it is adopted as the key central concept of the Food Guide Graphic, everything else will fall in line behind it with simple, easy-to-depict graphics and words that comport with its new slogan.

3. Concept for a compelling graphic.

The arguments that support a pyramid-shaped food guide graphic are well known. Absent compelling evidence to junk the pyramid shape, it is wise not to throw it out with the bath water and spend the time and funds to develop and introduce a new shape. After all, the pyramid is already widely recognized as a food guide, and so both prudence and common sense suggest that the wisest course is to refresh it with minor but meaningful adjustments.

The current official Food Guide Pyramid (1992) is a equilateral triangle (USDA/HHS Home and Garden Bulletin No. 232, Final Edition, 2000).

Oldways recommends retaining this familiar pyramid shape, but changing its proportions slightly and adding a platform. These small changes will not only freshen the current Food Guide Pyramid, but will make a big difference in improving its effectiveness. These slight changes are to flatten it a bit by widening its base, and adding a platform for it to rest upon.

Widening the base. The principal reason for this change is to accommodate a conceptual breakthrough which will allow the Food Guide graphic to convey the message long sought by nutritionists: that healthy eating and drinking patterns are based upon a balance among carbohydrates, proteins, and fats. With a wider base, the three macronutrient classes can fit alongside one another at the pyramid's base, unmistakably conveying that each is equally important for good health, but in differing proportions.

Consequently, Oldways recommends that the new Food Guide graphic remain triangular in shape, but that it adopt the proportions of the 4,750 year old great pyramid of Cheops in Egypt. This base of this Cheops pyramid is somewhat longer that the two sides, which has the effect of flattening it (see note just below for details).

In addition to the benefit of allowing the three macronutrients to form the base of the pyramid, as noted above, this reconfiguration allows more space alongside both sides of the pyramid to accommodate other messages and/or graphics. We recommend that fluids be included in one of these "side spaces," and that "non-nutrient" Dietary Guidelines messages be accommodated on the other. "Non-nutrient" messages include such subjects as food safety.

Adding a platform. We strongly urge that the entire pyramid rest upon a rectangular platform which depicts physical activity. Physical activity is of course not technically "food," but since this entire enterprise is about "food guides," and physical activity is intrinsically linked to both amounts and kinds of nutrition, it is escapist to avoid including a clear and distinct message about physical activity.

Oldways' traditional and food-culture-specific food pyramids have rested on a physical activity platform since 1997, and this innovation has been uniformly welcomed by the nutrition and dietetic communities. We have enclosed copies of Oldways pyramids which incorporate a platform for physical activity; we first did this in 1997.

We have attached examples of these Oldways pyramids for your information.

Adopting this comprehensive and logical approach will place the Dietary Guidelines and the Food Guide Graphic into a meaningful, compelling and scientifically-accurate package that will effectively persuade consumers to make changes.

(NOTE: The official US Food Guide Pyramid is an equilateral triangle; each of its three sides is the same length. The pyramid of Cheops is a four-sided solid each base of which is 775 feet long; each of its four sloping corners is 618 feet high.

This produces a "Cheops triangle" with a base 775 feet wide, and two sides 618 feet high. As a result, the Cheops triangle is "flatter" than the USDA triangle.)

4. Slogan

While we think it is premature to settle upon a final versions of a slogan or slogans until after the official version of the 2005 U.S. Dietary Guidelines for Americans are released, we are happy to suggest the following. However, we do urge you to make another request for slogan suggestions after the official Guidelines are made public.

Suggestion #1: **"Buy Into the Pyramid"**

This clear play on words suggests that *buying food and drink,* whether it be at a food market or a food service establishment, has large importance for diet healthfulness, since it is the step which precedes eating and drinking. It may, in fact, be more important than the "eating" step.

Suggestion #2: **"Live Life with the Pyramid"**

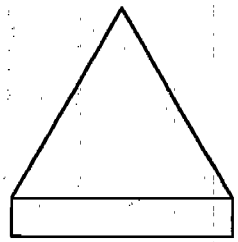
This, too, is a clear play on words. It suggests both (a) that the Pryamid should become a regular part of daily living, and (b) that it has a relationship to healthy living.

Both of these preliminary slogan language suggestions respond to the fact that only a small percentage of Americans use the Pyramid as a guide in closing the circle of ***purchase*** food/drink, ***consume*** food/drink. And, achieving closure of this circle is the goal we all seek.

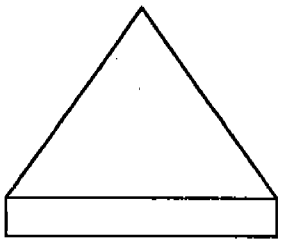
Thank you again for the clear guidance in your Notice.

K. Dunn Gifford

Oldways Preservation Trust
Boston, MA
September 26, 2004



Equilateral Pyramid



Cheops Pyramid

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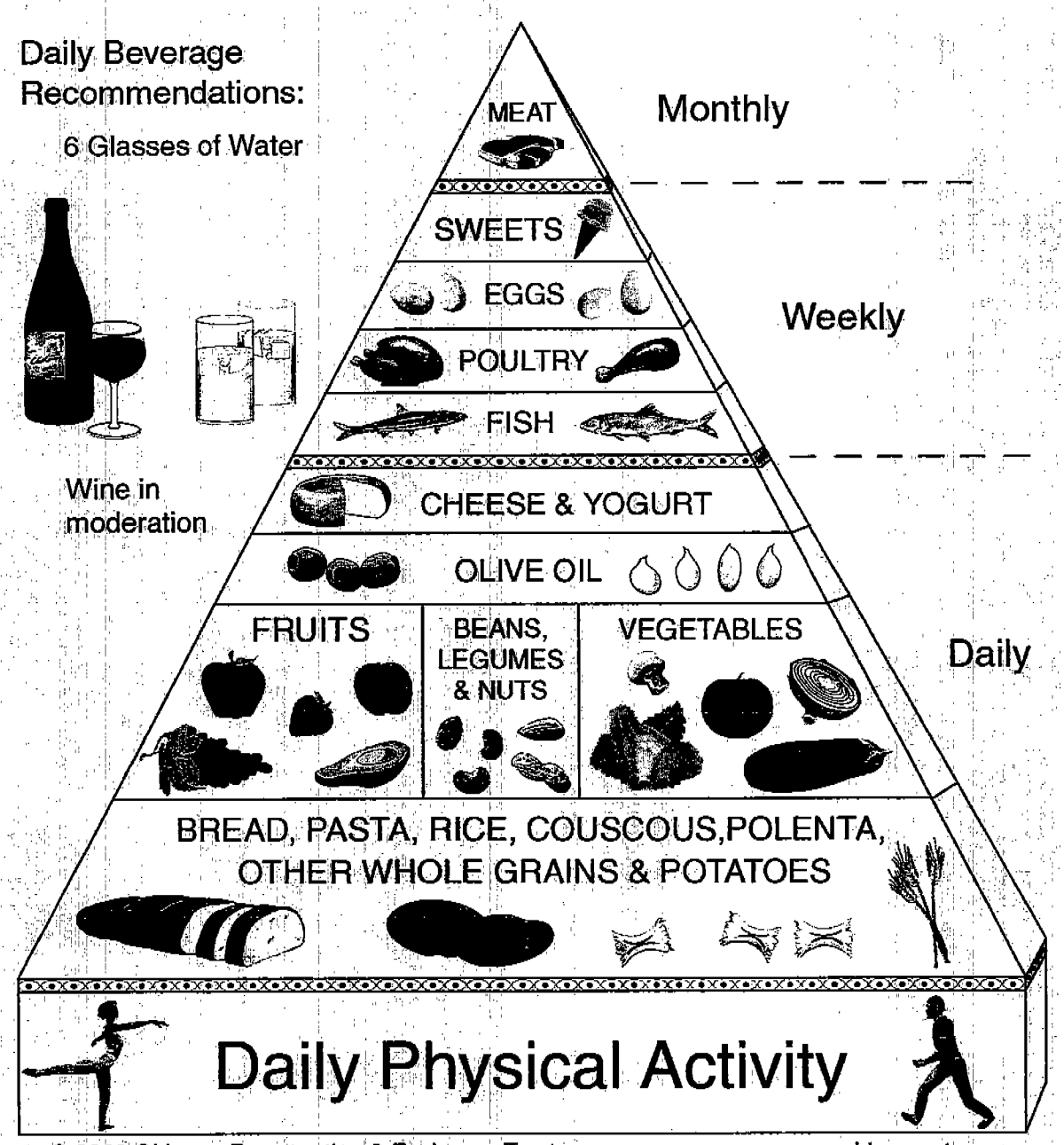
The Traditional Healthy Mediterranean Diet Pyramid



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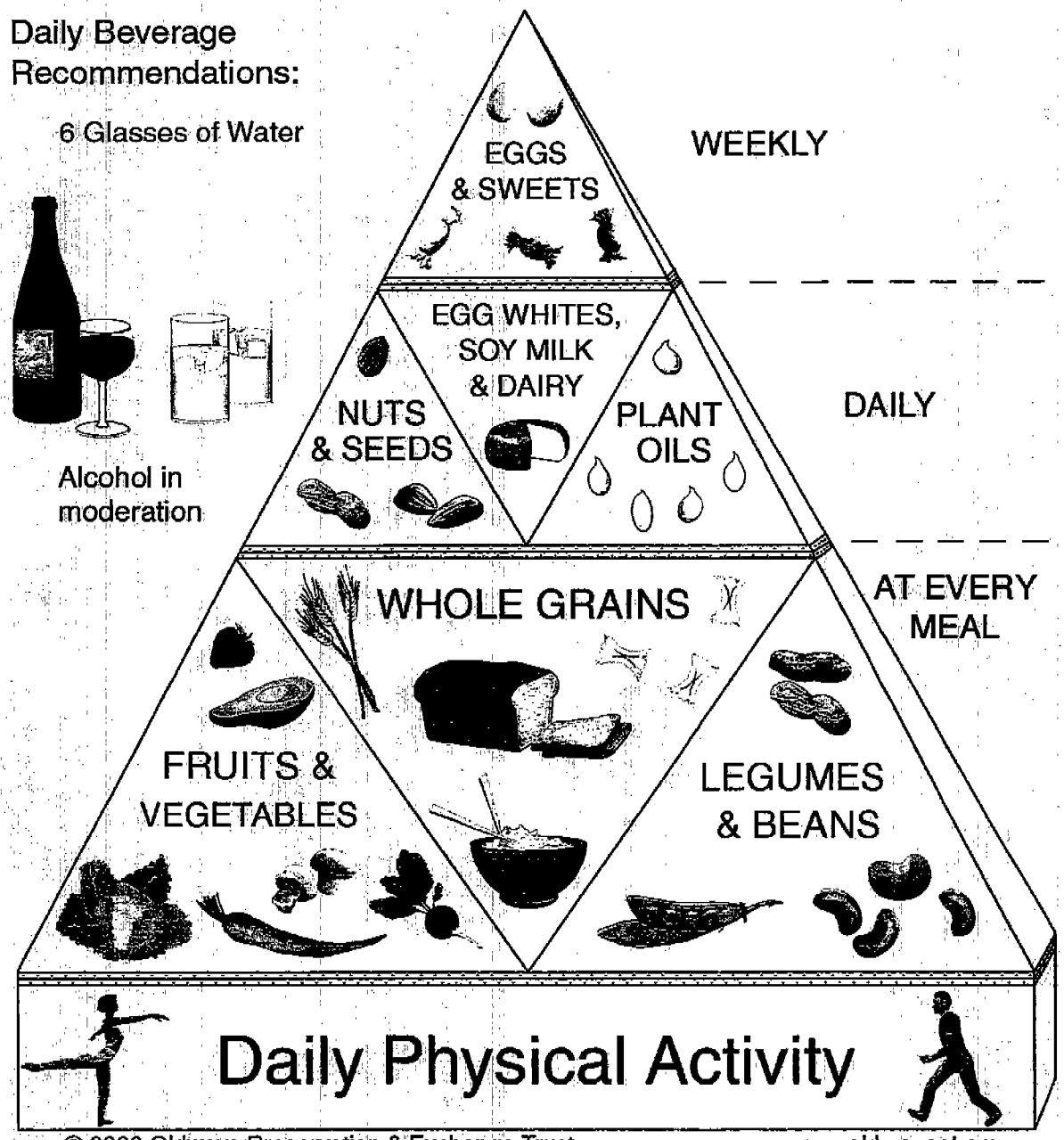
The Traditional Healthy Vegetarian Diet Pyramid



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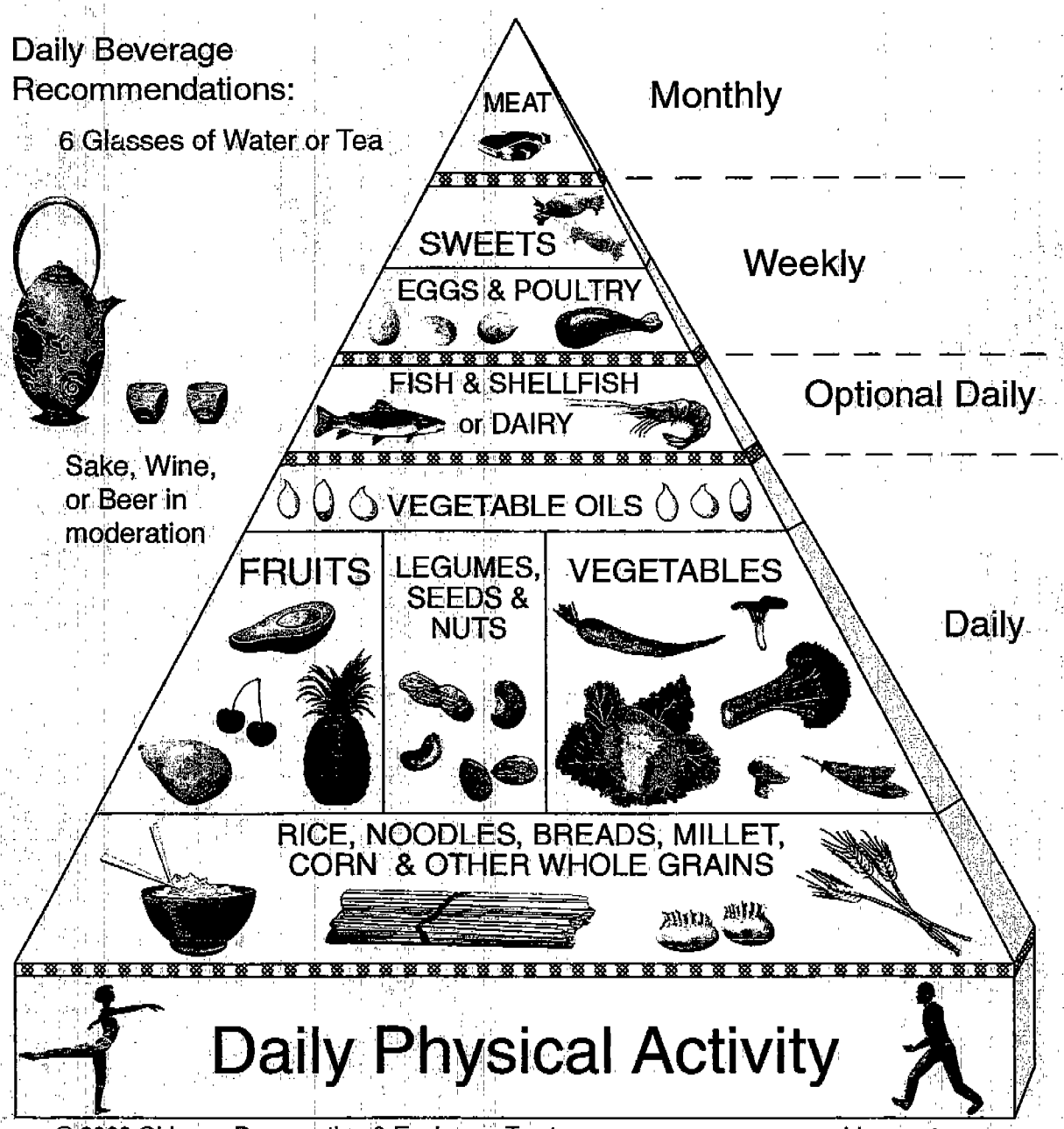
The Traditional Healthy Asian Diet Pyramid



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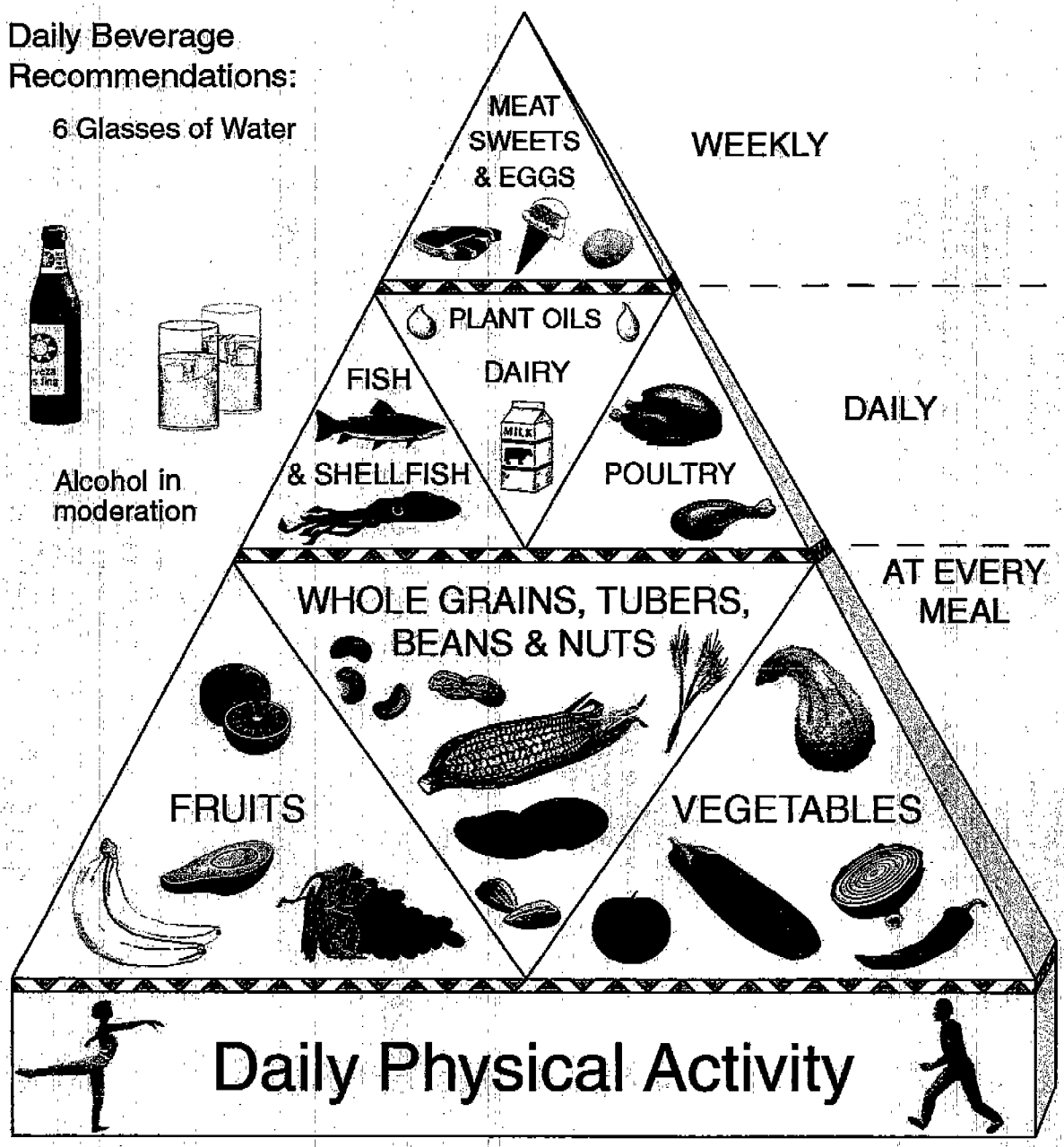
The Traditional Healthy Latin American Diet Pyramid



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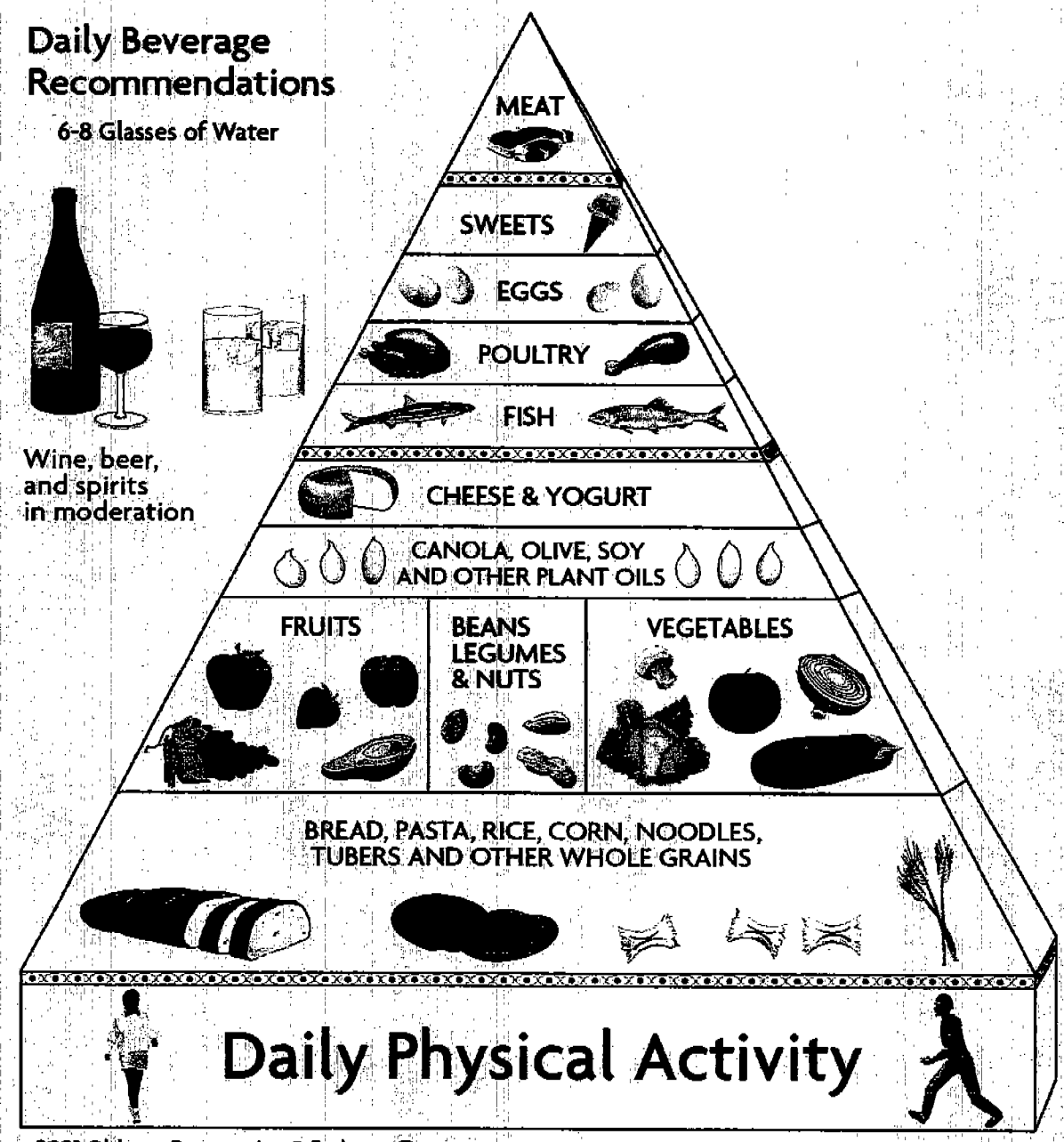
The EatWise Pyramid



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John Webster
Director, Public Information and Governmental Affairs
Center for Nutrition Policy and Promotion
United States Department of Agriculture
3101 Park Center Drive, Room 1034
Alexandria, VA 22302

August 27, 2004

Dear Mr. Webster:

Thank you very much for inviting us to comment on the new Food Guidance System and the proposed new graphic, and for counting the Physicians Committee for Responsible Medicine (PCRM) among your stakeholders. We appreciate the opportunity to provide input into this important process. PCRM is a nonprofit organization that promotes preventive medicine, conducts clinical research, and encourages higher standards for ethics and effectiveness in research. We represent a broad base of doctors, dietitians, and other health professionals, as well as laypeople interested in nutrition and research issues.

With obesity at epidemic levels, and diseases such as diabetes, cancer and heart disease on the rise, the importance of communicating a healthy diet as means to promote health cannot be overstressed. Below, please find our comments to the USDA's questions regarding the proposed new graphic, as well as comments on the Food Guidance System.

Graphic

It is time for a bold new message and, consequently, a bold new graphic. Although, the food guide pyramid is widely recognized as a meal-planning guide it needs to be replaced. While Americans generally know of it, they clearly do not use it nor do they understand its more subtle messages. Fruits and vegetables and whole grains are seriously underconsumed, fiber intake is dismally low, and fat, sugar, and total calories are eaten in excess. Therefore, because the original information is not well understood and often goes unused, altering the messages contained within the same shape would likely provide no benefit. If we are to provide a new message as we should, then a new graphic will be necessary to communicate the very real change in dietary advice provided.

It is our hope that the USDA will create a new graphic to steer people towards food patterns that will promote health. An ideal graphic would show individuals what foods need to be increased to meet new IOM recommendations; specifically ways to increase fiber, potassium, and decrease saturated fat. And it would also illustrate what foods contain the saturated fat, cholesterol, salt, sugar, and excess calories we, as a population, need to avoid.

While the new food guidance system is complex and contains helpful new individualized information, it would be difficult and unwieldly to try to convey all of this information in a new graphic. Instead, we recommend that the graphic symbol depict basic important key messages that are congruent with the food guidance system. The simple messages again, would ideally be: build your diet from whole plant foods, the fruits, vegetables, whole grains, and beans while limiting or avoiding fatty, sugary, salty foods including animal products, sugary beverages, sweets, and other foods that provide unnecessary and, therefore, discretionary calories. For those who wish more detailed information, the food guidance system should be readily accessible via the web and other avenues.

A graphic that depicts these simple messages would have the advantage of providing guidance when people are most likely to be interested in such information; at the grocery store. A simple educational graphic would have the advantage of being accessible at the point-of-sale, and allowing individuals to visualize where the foods purchased fit into either a more or less healthful eating pattern.

A graphic depicting these two simple messages could take a variety of forms. One suggestion may be a graphic that looks like a dinner plate, which contains the types of foods that promote health; whole grains, fruits, vegetables and legumes. Discretionary calories could be placed to the side as on a dessert plate, and include foods that contain the higher amounts of fat and cholesterol in the typical American diet, such as meat, eggs and dairy products, as well as refined and sugary items such as baked goods and soda. Alternatively, the image could be of a bushel basket or garden overflowing with delicious looking plant foods, with an inset of the foods to be limited indicated by circle with a line through it. Or, a cartoon of a strong person holding an armful of fresh produce and other plant foods standing on a podium that is squishing images of foods containing discretionary calories could also convey this message. The key point is that whatever the image, these two simple core messages should come through loud and clear.

Core Messages

Core messages should be focused, food-based messages, rather than nutrient messages. Experience has shown that the average American does not have a good grasp of what carbohydrates, proteins or a fats are nor what foods contain each. Diet fads have also interceded to confuse the public's perceptions of these nutrients. Foods, when explicitly identified, however, are more recognizable and less prone to misinterpretation.

The core messages should demonstrate a healthy food pattern that promotes health, protects against disease, and aids in helping people maintain or achieve a healthy body

weight. A pattern that encourages nutrient-dense, but not calorie-dense foods should be promoted, as well as a pattern that will help Americans meet the IOM's increased requirements for fiber and potassium, and the call to decrease saturated fat and limit calories.

Foods that fit this pattern are primarily plant-based and include whole grains, fruits, vegetables and legumes. Foods higher in calories, fat, cholesterol, such as meat, dairy products and eggs, as well as foods that contain "empty calories" such as sugar, should be considered discretionary.

Rationale for Core Messages

Whole-grain foods should be considered part of the healthy food pattern, because they can be an important source of fiber in the diet and contain nutrients that refined grains do not. Refined grains and refined grain products are also often components of sugary, processed foods and baked goods, such as cakes and donuts, which contribute empty calories to the diet. Refined grains should therefore be considered discretionary.

Currently, people in the United States are only eating between 12 and 15 grams of fiber a day, far less than the IOM recommendations of 20 to 35 grams.[1] An easy way to boost fiber intake is to switch from refined grains to whole-grain foods. People who consume more whole grains are at lower risk of developing coronary heart disease, stroke, cancer, and diabetes,[2] and women who consume more whole grains than refined grains have a lower mortality rate than women who favor refined grains.[3] Inversely, consumption of refined grains has been associated with a higher risk of heart disease[4] and with some forms of cancer.[5]

Increasing fruit and vegetable intake would have profound, improved health implications in Americans. These foods provide vitamins, minerals, fiber and protein, while contributing no cholesterol and very little fat, especially saturated fat, to the diet. Increased consumption of fruits and vegetables is widely known to decrease the risks of many diseases.

When considering protein sources, plant sources should be highlighted in the healthy food pattern, while animal sources should be discretionary. Animal sources are not required by the body, and tend be much higher in cholesterol and saturated fat, while containing no fiber. Emphasizing plant protein sources in the new food guidance system could have tremendous positive effects on health. For example, one study showed that people who adopted a vegetarian diet reduced their saturated fat intake by 26 percent and achieved a significant drop in cholesterol levels in just six weeks.[6] Besides the low levels of saturated fat and absence of cholesterol in plant protein sources, vegetable protein also helps decrease the risk for heart disease. Studies have shown that replacing animal protein, such as casein, with soy protein reduces blood cholesterol levels even when the total amount of fat and saturated fat in the diet remains the same.[7-8]

While the elimination of meat protein has health-promoting attributes, the inclusion of beans and nuts in the diet also has important health benefits. For example, research from the Physicians' Health Study at Harvard has found that nut consumption is associated with a decrease in risk of total coronary heart disease death, particularly sudden cardiac death.[9] A reduction in the risk of coronary heart disease is also seen with legume consumption as reported in the NHANES I Epidemiologic Follow-up Study.[10]

Diets heavy in animal protein versus plant protein can cause an increase in bone loss, which can lead to osteoporosis, and an increase in kidney stone formation. Animal protein tends to leach calcium from the bones, leading to its excretion in the urine. International comparisons show a strong positive relationship between animal protein intake and fracture rates. These findings are supported by clinical studies showing that high protein intakes aggravate calcium losses. A 1994 report in the *American Journal of Clinical Nutrition* showed that when animal proteins were eliminated from the diet, calcium losses were cut in half.[11] Another recent research study found that subjects consuming a diet high in animal protein for as little as six weeks had a significant decrease in estimated calcium balance.[12]

Also, the American Academy of Family Physicians notes that high animal protein intake is largely responsible for the high prevalence of kidney stones in the United States and other developed countries and recommends protein restriction for the prevention of recurrent nephrolithiasis.[13] In part, this is because protein ingestion increases renal acid secretion, calcium resorption from bone, and a reduction in renal calcium resorption. In addition, animal protein is a major dietary source of purines, the major precursors of uric acid and an important factor in some stone formers. When uric acid builds up, especially in an acid environment, it can precipitate uric acid stone formers and decrease the solubility of calcium oxalate, a problem for calcium stone formers.[13] Studies have shown that consumption of beans, particularly soybeans, have been associated with both cardiovascular and renal benefits.[14]

Emphasizing this protein group discourages the consumption of foods that have been linked to colon cancer and encourages foods that have been associated with a reduction in colon cancer risk. Colorectal cancer is one of the most common forms of cancer and is among the leading causes of cancer-related mortality. Long-term high intake of meat, particularly red meat, is associated with significantly increased risk of colorectal cancer. The 1997 report of the World Cancer Research Fund and American Institute for Cancer Research, Food, Nutrition, and the Prevention of Cancer, reported that, based on available evidence, diets high in red meat were considered probable contributors to colorectal cancer risk. In addition, diets high in animal protein are typically low in dietary fiber. Fiber facilitates the movement of wastes, including intralumenal carcinogens, out of the digestive tract, and promotes a biochemical environment within the colon that appears to be protective against cancer.[15]

Scientific evidence no longer supports a broad-based recommendation to consume dairy products. Dairy has been promoted as an essential food group, largely because of calcium content. However, all essential nutrients found in dairy products can be found in

numerous non-dairy sources, such as beans, dark leafy greens, fortified cereals, juices, and non-dairy milk alternatives. These plant-based products also have the advantage of containing no cholesterol and less saturated fat. Therefore, dairy products should be considered discretionary foods.

More importantly, dairy product consumption and calcium intake has been linked to an increased risk of prostate cancer. Prostate cancer is the fourth most common malignancy among men worldwide, with an estimated 400,000 new cases diagnosed annually, accounting for 3.9 percent of all new cancer cases.[16] Epidemiologic evidence strongly suggests that dietary factors play a major role in prostate cancer progression and mortality, with protective effects associated with consumption of fruit (particularly tomatoes), vitamin E, and selenium, and increased risk linked to dairy products, meat, and fat.[17] Dairy product consumption has been associated with prostate cancer risk in divergent populations, and several studies have investigated mechanisms that may explain these findings.

Five of eleven cohort studies on dairy's effect on prostate cancer have found significant associations between milk or dairy product consumption and prostate cancer incidence or mortality,[18-22] while six studies found no association between milk or dairy product use generally and prostate cancer incidence or mortality.[23-28] For example, in the Health Professionals Follow-Up Study, a cohort of U.S. male dentists, optometrists, osteopaths, pharmacists, and veterinarians, the relative risk of advanced prostate cancer associated with daily consumption of more than two glasses of milk, compared to zero, was 1.6 (95% CI, 1.2-2.1, $P_{trend} = 0.002$). For metastatic disease, relative risk was 1.8 (95% CI, 1.2-2.8, $P_{trend} = 0.01$). Of the milk consumed, 83 percent was skim or low-fat.[29] In the Physicians' Health Study cohort, consumption of two and one-half dairy servings daily was associated with increased risk of prostate cancer, compared to having less than one-half serving daily (RR 1.34, 95% CI: 1.04,1.71), after adjustment for age, smoking, exercise level, and body mass index (BMI).

Also, new research casts grave doubt on the long-standing but poorly supported notion that dairy product consumption protects against bone loss. In countries where dairy products are not generally consumed, osteoporosis is less prevalent than in the United States. Studies have shown little effect of dairy products on osteoporosis.[30] The Harvard Nurses' Health Study followed 78,000 women for a 12-year period and found that milk did not protect against bone fractures. Indeed, those who got the most calcium from dairy sources had more fractures than those who rarely drank milk.[31] In one of the most comprehensive reviews on the effect of dairy products on bone health, Weinseir and Krumdieck examined 57 research studies. In this review, 53 percent of the studies found results that were not significant, 42 percent found favorable results, and 5 percent found unfavorable results. The researchers concluded that there was not enough evidence to recommend dairy consumption for bone health to males, members of minority groups, or women over 30.[32] What has been supported by scientific evidence, however, is that fruit and vegetable intakes have a positive effect on bone health. A study published in the *American Journal of Clinical Nutrition* shows that higher intakes of fruits and vegetables throughout the teen years improve bone density in adulthood.[33]

Individualized vs. General Messages

Individualized messages are an appropriate and welcome change, as long as the system is set up to accommodate a wide variety of preferences and options, and that these individualized messages are in accordance with the overall core message, which is to promote a healthy food pattern.

Allowing people to enter BMI and activity level and to receive a personalized calorie requirement should prove to be very informative and help people realize their caloric needs.

A complication may arise in the content of individualized food-based messages. Nutrient requirement messages are generally uniform within a given age range, however there are multiple means (and some healthier than others) by which to obtain these nutrients. The individualized messages should provide an array of food choices that promote nutrient and fiber intake, while remaining low in calories, fat, especially saturated fat, and cholesterol. A wide array of choices will allow individuals with specific health conditions, allergies, or religious, vegetarian, or taste preferences to choose appropriate foods.

Recommended general guidance messages:

- Consumption of a wide variety of unrefined, whole, plant-based foods, such as whole grains, fruits, vegetables and beans/legumes provides the body with all essential nutrients, and represents an eating pattern that promotes good health, disease prevention and aids in achieving and maintaining a healthy body weight.

- Foods that are calorie-dense, high in saturated fat and cholesterol, and low in fiber, such as meat, eggs and dairy products, as well as sugary foods, are discretionary.

Individualized guidance:

Individualized guidance (including the food patterns recommended in the new food guidance system) should fit within the generalized guidelines, which promote plant-based foods for health. To ensure the healthiest food options are presented, it is essential that the food guidance system recognize plant-based foods as choices for meeting nutrient requirements. Ideally, meat, dairy and other fat-laden products that would be considered the alternatives (labeling them as discretionary will aid in this.)

Examples:

- To increase calcium intake, use plant-based options such as dark leafy greens, beans, fortified orange juice, as well as fortified rice, almond and soy milks.

- To cut saturated fat and cholesterol and increase fiber intake will meeting protein needs, use beans (garbanzo, kidney, black, white, pinto, etc.), peas, lentils, whole grains, and tofu or other soy or wheat based veggie "meats".
- To increase iron intake, eat plenty of green leafy vegetables (kale, collards, spinach, mustard or beet greens, broccoli, etc.) and beans (garbanzo, kidney, black, white, pinto, etc.).

It is imperative that at least one version of the individualized food guidance system be based entirely on plant foods to promote long term health and to meet the needs of vegetarians, vegans, individuals with milk allergy or lactose intolerance, or individuals with religious preferences that exclude one or more animal products.

Channels of Delivery

The internet is an inexpensive, easy, and effective way to distribute information and it has the potential benefit of being interactive. Therefore, it certainly is one good channel of delivery of these messages, however it will NOT reach everyone. Elder individuals and low-income populations are less likely to have access. Content would also need to be available in Spanish and perhaps other languages that are spoken by a significant number of individuals in the US.

Use of the radio and television is an effective way to reach a very broad audience. Certainly food manufacturers have utilized this channel of delivery to shape eating habits of individuals in the US. Catchy, strong, public service announcments delivered via television and radio could be utilized to help brand the new graphic, and also to demonstrate a healthy eating pattern.

In addition, we recommend the development of print materials that could be made available in grocery stores, some government offices, and doctor offices.

Point-of-purchase information should also be available. Foods that fall into the healthy eating pattern should be branded with the new graphic. "Sub" graphics could also be created to represent foods within the pattern (whole grains, fruits, vegetables, beans/legumes) and placed on the appropriate food items. Separate, differently colored graphics representing "discretionary" items can be created and placed on those respective items, and could potentially serve as mild warnings regarding the need to limit the consumption of these foods.

Types of Information

Not everyone will seek detailed, individualized information, and there may be occasions where it is not feasible to provide individualized information, such as at a grocery store. Basic information should be readily available on the internet, in print form, and visible at the point-of-purchase. Examples of beneficial, basic information are as follows:

Internet and print materials

- The new graphic demonstrating a healthy eating pattern should be very visible to encourage "branding". Foods that fit into the healthy eating pattern (whole grains, vegetables, fruits and beans/legumes) could be listed, as individuals are likely unaware of the many foods available. Key nutrients available in these foods could also be highlighted.
- A list and pictures/graphics of the discretionary foods that are to be limited (meat, eggs, dairy products, soda and other fatty or sugary foods).
- A BMI calculator or chart, with an explanation of the numbers would be helpful for people to start thinking about what personalized information they may need to achieve a healthy weight.
- Sample menus, using foods acceptable to different cultural and religious groups.
- Tips for eating out; foods to look for and foods to avoid.
- Brief statements on how plant foods can affect diabetes, high blood pressure, lower cholesterol.

Point-of-Purchase Information

- The new graphic should be placed on or near products to illustrate that the specific food fits within a healthy eating pattern. In the case of fresh produce, key nutrients can be posted near the foods.
- Products considered to fall into the discretionary calories category should also be identified as foods to be limited in a healthy diet.

A new graphic that offers a clear and bold message to encourage the increased intake of fruits, vegetables, grains and legumes, while identifying fatty, sugary and salty foods as discretionary and discouraging consumption of these foods, will aid in setting Americans back on the road to wellness. The food guidance system, designed to support these messages, will be an invaluable tool for combating disease and promoting health.

Thank you again for the opportunity to weigh in on these important issues, and if we may be of any further assistance, please do not hesitate to contact me via phone at 919-306-5162 or email: alanou@pcrm.org.

Respectfully submitted,

Amy Joy Lanou

Amy Joy Lanou, Ph.D.
Nutrition Director

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for Wise Traditions in Food, Farming and the Healing Arts

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August 26, 2004

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Food Guide Pyramid Reassessment Team
USDA Center for Nutrition Policy and Promotion
3101 Park Center Drive,
Room 1034
Alexandria, VA 22302

Dear Food Guide Reassessment Team:

On behalf of the members and the board of the Weston A. Price Foundation, we are pleased to submit our comments on the USDA Food Guidance System/ Food Guide Pyramid. These comments are in response to the Federal Register Notice, vol. 69, No. 133, dated Tuesday July 13, 2004, page 42030.

If you have any questions, you may contact the Foundation at 202 333-HEAL or westonaprice_contact@msn.com. Our website is www.westonaprice.org.

Thank you.

Sincerely yours,

Bill Sanda

Bill Sanda
Director of Public Affairs
Weston A. Price Foundation

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for WiseTraditions in Food, Farming and the Healing Arts
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Comments on the Food Guidance System/ Food Guide Pyramid

U. S. Department of Agriculture
Center for Nutrition Policy and Promotion

Submitted by the Weston A. Price Foundation

Sally Fallon, President
Mary Enig, Ph.D., Vice President and Science Advisor
Bill Sanda, Director of Public Affairs

August 26, 2004

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WASHINGTON, DC
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Recommendations

The Weston A. Price Foundation makes the following recommendations:

- **Abandon the current Food Pyramid concept;**
- **Return the Dietary Guidelines to a plan that stresses high quality foods from four basic groups;**
- **Urge avoidance of processed foods containing refined and partially hydrogenated vegetable oils, highly sugared food, especially those foods containing high fructose corn syrup as well as foods containing refined highly processed protein isolates;**
- **Encourage use of beneficial unprocessed, unrefined saturated and monounsaturated fats and oils;**
- **Limit added sugars to no more than 10 percent of daily caloric intake.**

Recommended Guidelines: Everyday, eat high quality, unprocessed foods from each of the following four groups:

- ***Animal foods: meat, poultry, fish, eggs and whole milk products***
- ***Grains and legumes: whole grain baked goods, breakfast cereals, beans***
- ***Fruits and Vegetables: preferably fresh or frozen***
- ***Fats and Oils: unrefined saturated and monounsaturated fats including butter and other animal fats, palm oil and coconut oil, olive oil and peanut oil***

Eat sparingly: sweets, white flour products, soft drinks, processed foods, polyunsaturated and partially hydrogenated vegetable oils and fried foods

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Executive Summary

According to a USDA study on nutrition, major health issues are diet related and the solution to illness can be found in nutrition. The real potential from improved diet is preventative in that it may defer or modify the development of a disease state. These findings are corroborated by Surgeon General C. Everett Koop's 1988 Report on Nutrition and Health.

Fifty years ago, grocery stores stocked about 200 items. Seventy percent of those were grown, produced or processed within a 100-mile radius of the store. Today, the average supermarket carries 50,000 food items or more; most of these foods are highly processed and refined, most of which are transported thousands of miles to their final destination. Americans spend over 90 percent of their food dollars on these processed foods - foods that contain high levels of refined sugars, high fructose corn syrup, refined polyunsaturated oils and *trans* fatty acids, excitotoxins such as MSG and aspartame, as well as highly processed protein isolates. The reduction in nutrients in these foods requires that we eat more to satisfy the body's nutritional requirements.

The current Food Pyramid strongly favor a low-fat, high-carbohydrate diet. The caloric proportions of proteins, fats and carbohydrates advocated by USDA's Food Pyramid and Dietary Guidelines are alarmingly similar to the USDA guidelines for fattening cattle and other livestock.

Only during the last century has man's diet included a high percentage of refined carbohydrates. Our ancestors ate fruits, vegetables and grains in their whole, unrefined state. In nature, sugars and carbohydrates—the energy providers—are linked together with vitamins, minerals, enzymes, protein, fat and fiber—the bodybuilding and digestion-regulating components of the diet. In whole form, carbohydrates support life, but refined carbohydrates are inimical to life because they are devoid of bodybuilding elements.

There is no conclusive evidence from epidemiologic studies that dietary fat intake promotes the development of obesity independently of total energy intake. Many researchers now recognize that one of the most important factors in preventing weight gain involves the total amount of calories consumed; when a significant portion of these calories come from healthy fats, the body experiences satiety and overall caloric intake is reduced.

During the early 20th century, most of the fatty acids in the diet were either saturated or monounsaturated, primarily from butter, lard, tallows, coconut oil and small amounts of olive oil; heart disease and obesity were virtually non-existent. Today, most of the fats in our diet are polyunsaturated, primarily from vegetable oils derived from soy, corn, safflower, sunflower, cottonseed and rape seed (canola – primarily monounsaturated).

Polyunsaturated fatty acids are very fragile. When exposed to heat and oxygen, as during commercial processing, they form free radicals and other harmful breakdown products that damage the human body in many ways. *Trans* fatty acids in the diet,

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created from partially hydrogenating vegetable oils, have been implicated as causing or exacerbating most of our modern diseases, including heart disease, cancer, diabetes, obesity, immune dysfunction and bone loss. In addition, a number of researchers have argued that along with a surfeit of omega-6 essential fatty acids from vegetable oils the American diet is deficient in the more unsaturated omega-3 linolenic acid.

Animal fats, such as butter, lard and tallows, as well as fruit/nut-derived saturated fats – coconut and palm oils - are stable, do not easily develop free radicals, and contain nutrients that are vital for good health. Children, in particular, require high levels of quality animal fats, such as butter and whole milk products, to achieve optimal physical and neurological development.

Naturally occurring unprocessed fruits, vegetables, whole grains and legumes with non-factory farmed animal and fish protein sources are recommended for longevity and well being. Beneficial fats include the primarily saturated butter and other animal fats, coconut and palm oils; monounsaturated fats such as olive oil and peanut oil; and the polyunsaturated omega-3 essential fatty acid from flaxseed oil and fish.

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The Weston A. Price Foundation

The Weston A. Price Foundation is a nonprofit, tax exempt food and nutrition education organization founded in 1999. The Foundation is dedicated to restoring nutrient-dense foods to the American diet through education, research and activism.

One of our goals is to disseminate the research of nutrition pioneer Dr. Weston Price, whose studies of isolated non-industrialized peoples established the parameters of human health and determined the optimum characteristics of human diets. Dr. Price's research demonstrated that humans achieve optimal physical form and health generation after generation only when they consume nutrient-dense whole foods and the vital fat-soluble activators, such as vitamins A and D, found exclusively in animal foods.

The Foundation supports a number of movements that contribute to this objective including accurate nutrition instruction, organic and biodynamic farming, pasture feeding of livestock, community-supported farms, honest and informative labeling, prepared parenting and nurturing therapies.

The board and membership of the Weston A. Price Foundation stand united in the belief that modern technology should be harnessed as a servant to the wise and nurturing traditions of our ancestors rather than used as a force destructive to the environment and human health; and that science and knowledge can validate those traditions.

The Foundation's quarterly journal, *Wise Traditions in Food, Farming, and the Healing Arts*, is dedicated to exploring the scientific validation of dietary, agricultural and medical traditions throughout the world. It features illuminating and thought-provoking articles on current scientific research, human diets, non-toxic agriculture, and holistic therapies. The journal also serves as a reference for sources of foods that have been conscientiously grown and processed.

Members of the Weston A. Price Foundation have created a network of 225 local chapters throughout the U.S., Canada, Australia, New Zealand, Europe and now Moscow to help find locally grown meat, eggs, dairy products and produce; and work towards the return of nutrient-dense foods to American tables through educational and activist activities.

The Foundation is member-driven and does not receive funding from any industry source.

The Foundation invites you to visit its informative and educational website at www.westonaprice.org.

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SUMMARY OF FINDINGS

- Major health issues are diet related and the solution to illness can be found in nutrition;
- The real potential from improved diet is preventative in that it may defer or modify the development of a disease state;
- The caloric proportions of proteins, fats and carbohydrates advocated by USDA's Food Pyramid and Dietary Guidelines are alarmingly similar to the USDA guidelines for fattening cattle and other livestock;
- There is no conclusive evidence from epidemiologic studies that dietary fat intake promotes the development of obesity independently of total energy intake;
- Many researchers now recognize that one of the most important factor in preventing weight gain involves the total amount of calories consumed; when a significant portion of these calories come from healthy fats, the body experiences satiety and overall caloric intake is reduced;
- Americans spend approximately 90 percent of their food dollars on processed foods - foods that contain high levels of refined sugars, high fructose corn syrup, refined polyunsaturated oils and *trans* fatty acids as well as highly processed, refined proteins. The reduction in nutrients in these foods requires that we eat more to satisfy the body's nutritional requirements;
- All fats and oils, whether of vegetable or animal origin, are some combination of saturated fatty acids, monounsaturated fatty acids and polyunsaturated fats;
- Commercial, refined vegetable oils (polyunsaturated oils) contain free radicals and dangerous breakdown products that can cause heart disease, cancer, inflammation and aging, as well as increased obesity;
- Modern diets can contain as much as 30% of calories as polyunsaturated oils, but scientific research indicates that this amount is far too high for humans;
- Recent research has revealed that too much omega-6 essential fatty acids (EFA) in the diet from excess polyunsaturated oils in processed foods creates an imbalance that can interfere with production of prostaglandins, leading to increased tendency to form blood clots, inflammation, high blood pressure, irritation of the digestive tract, depressed immune function, sterility, cell proliferation, cancer and weight gain;
- Modern agricultural and industrial practices have reduced the amount of beneficial omega-3 EFA in commercially available vegetables, eggs, fish and meat. Americans must increase the level of consumption of omega-3 essential fatty acids from fish and flax seed sources;

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- *Trans* fatty acids from modern partially hydrogenated vegetable oils are new to the human physiology and by the early 1970s a number of researchers had expressed concern about their presence in the American diet, noting that their increasing use had paralleled the increase in both heart disease and cancer and upsetting cell membranes;

- Most of the *trans* fatty acids in the current American diet come not from margarine but from shortening used in fried and fabricated, processed foods;

- American shortening consumption of 10 grams per person per day held steady until the 1960's, although the content of that shortening had changed from mostly lard, tallow and coconut oil—all natural fats—to partially hydrogenated soybean oil. Then shortening consumption shot up and by 1993 had tripled to over 30 grams per person per day;

- Approximately 70 percent of all the vegetable oils used in processed foods such as crackers, cookies, pastries, cakes, and fried foods are partially hydrogenated and therefore contain high levels of *trans* fats;

- *Trans* fatty acids lower HDL cholesterol, increase LDL and increase the heart disease marker Lipoprotein [a] (Lp[a]) while saturated fats lower Lp[a] - *trans* fatty acids raise blood sugar levels and contribute to diabetes;

- The scientific evidence, honestly evaluated, does not support the assertion that "artery-clogging" saturated fats cause heart disease;

- Animal fats are stable, do not easily develop free radicals, and contain nutrients that are vital for good health;

- Children, in particular, require high levels of quality animal fats to achieve optimal physical and neurological development;

- Cholesterol is not the cause of heart disease but rather a potent antioxidant weapon against free radicals in the blood, and a repair substance that helps heal arterial damage, although the arterial plaques themselves contain very little cholesterol;

- Damaged or oxidized cholesterol seems to promote both injury to the arterial cells as well as a pathological buildup of plaque in the arteries and is found in powdered eggs, in powdered milk (added to reduced-fat milks to give them body) and in meats and fats that have been heated to high temperatures in frying and other high-temperature processes;

- Babies and children need cholesterol-rich foods throughout their growing years to ensure proper development of the brain and nervous system;

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- High serum cholesterol levels often indicate that the body needs cholesterol to protect itself from high levels of altered, free-radical-containing fats;

- High levels of carbohydrate in a diet do not provide the satiety that natural fats do, and the result is that there is a tendency to overeat carbohydrates;

- Only during the last century has the human diet included a high percentage of refined carbohydrates;

- Refined carbohydrates are inimical to life because they are devoid of bodybuilding elements;

- The refining process strips grains, vegetables and fruits of both their vitamin and mineral components. Refined carbohydrates have been called "empty" calories. "Negative" calories is a more appropriate term because consumption of refined calories depletes the body's precious reserves;

- A diet high in refined carbohydrates stimulates an abnormal pancreatic insulin response in order to moderate blood sugar levels;

- As the consumption of sugar has increased, so have all the "civilized" diseases;

- Constant high intake of simple dietary sugar over-stimulates or "burns out" normal, healthy pancreas and adrenal function;

- Until the 1970s most of the sugar we ate came from sugar beets or sugar cane, called sucrose. During the 1970s, sugar from corn - corn syrup, fructose, dextrose, dextrine, and/or high fructose corn syrup - began to gain popularity as a sweetener;

- In the past, fructose was considered to be beneficial to diabetics because it is absorbed only 40 percent as quickly as glucose and causes only a modest rise in blood sugar; however, research on other hormonal factors suggests that fructose actually promotes disease more than glucose;

- Glucose is metabolized in every cell in the body but all fructose in metabolized in the liver; the livers of test animals fed large amounts of fructose develop fatty deposits and cirrhosis, similar to the livers of alcoholics;

- Research indicates that free fructose interferes with the heart's use of key minerals like magnesium, copper and chromium; among other consequences, it has been implicated in elevated blood cholesterol levels and blood clotting;

- The more carbohydrate that is eaten, the more fat the liver and adipose tissue make from any excess carbohydrate;

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- Just as animal fats are our only sources of natural vitamins A and D and other bodybuilding factors, so also animal protein is our only source of complete protein;

- The two best sources of protein in the vegetable kingdom are legumes and cereal grains, but all plant foods are low in the amino acids tryptophan, cystine and threonine. Legumes, such as beans, peanuts and cashews are high in the amino acid lysine but low in methionine. Cereal grains have the opposite profile;

- Scientific evidence, honestly evaluated, argues against relying too heavily on grains and legumes as sources of protein or for severely reducing animal products in the diet;

- Inadequate protein intake leads to loss of myocardial muscle and may therefore contribute to coronary heart disease;

- Usable vitamin B_{12} occurs only in animal products;

- Isolated protein powders made from soy, whey, casein and egg whites are currently popular as basic ingredients in diet beverages and many so-called health food products. These protein isolates are usually obtained by a high-temperature process that over-denatures the proteins to such an extent that they become virtually useless while increasing nitrates and other carcinogens and decreasing vitamin A levels;

- *Animal protein foods—fish, meat, eggs and milk—always come with fat and this is* how we should eat them. Animal fat supplies vitamins A and D needed for the assimilation of protein. Consumption of low fat milk products, egg whites and lean meat can lead to serious deficiencies of these vital fat-soluble nutrients;

- Over the long term, low-fat diets have been shown to be disadvantageous for preventing the diseases they have been recommended for - most people are at risk for lowered intakes of the important fat-soluble vitamins and other fat-soluble nutrients when they consume low-fat diets for any length of time.

- While not a macronutrient, excitotoxins such as monosodium glutamate (MSG) and aspartame play a significant role in the processing of foods consumed by Americans and our resultant levels of obesity.

- Excitotoxins are present in almost all processed foods.

- Excitotoxins have been identified in playing a critical role in the development of a number of neurological disorders.

- Of particular concern are the toxic effects of excitotoxins on the developing brain.

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INTRODUCTION

Obesity is clearly on the rise in America. Over 65 percent of Americans are considered to be overweight with 25 percent clinically obese. According to the Surgeon General's 2001 report on obesity, 13 percent of children and adolescents were overweight in 1999.[1] African-American and Mexican-American children are twice as likely as non-Hispanic white children to have a body mass index of more than 25, the definition of overweight. During the last three decades, the number of overweight young Americans has tripled, with no sign the trend is abating.

The question we are asking is, "To what degree are the foods we eat and the kind of foods we eat contributing to this epidemic of obesity?" The Weston A. Foundation would say, "We are what we eat and what we can digest." Food and the types of foods consumed by Americans today play a significant role in creating this situation. We will present evidence why this is so and what we can do to reverse this trend.

A 1971 USDA study on nutrition titled, "An Evaluation of Research in the Untied States on Human Nutrition"[2] reported:

- Major health issues are diet related;
- The solution to illness can be found in nutrition
- The real potential from improved diet is preventative in that it may defer or modify the development of a disease state
- Better health, a longer lifespan and greater satisfaction from work, family and leisure time are some of the benefits from improved nutrition

Interestingly, this very important study was never released to the public by the Nixon Administration.

In 1988, "The Surgeon General's Report on Nutrition and Health" addressed the overwhelming evidence of the connection between diet and chronic disease.[3] In his report, then Surgeon General C. Everett Koop stated, "For the two out of three adult Americans who do not smoke and do not drink excessively, one personal choice seems to influence long-term health prospects more than any other: what we eat... The weight of this evidence and the magnitude of the problem at hand indicate that it is now time to take action." C. Everett Koop said this fifteen years ago.

Fifty years ago, grocery stores stocked about 200 items. Seventy percent of those were grown, produced or processed within a 100-mile radius of the store. Today, the average supermarket carries 50,000 food items or more;[4] most of these foods are highly processed and refined, most of which are transported thousands of miles to their final destination. Americans spend over 90 percent of their food dollars on these processed foods[5] - foods that contain high levels of refined sugars, high fructose corn syrup, refined polyunsaturated oils and *trans* fatty acids as well as highly processed, refined

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proteins. The reduction in nutrients in these foods requires that we eat more to satisfy the body's nutritional requirements.

The current Dietary Guidelines and Food Pyramid recommend a diet based largely on carbohydrates in the form of grains such as bread, crackers, pasta, rice, etc., with smaller amounts of fruits and vegetables; with small amounts of lean meat, legumes and low-fat dairy as protein sources and sparing use of fats and oils. The current Guidelines strongly favor a low-fat, high-carbohydrate, high glycemic index/load diet. The caloric proportions of protein to fat to carbohydrates are 10-25% protein, up to 30% fat and 45-65% carbohydrates.

In fact, the proportions of proteins, fats and carbohydrates advocated by the USDA Food Pyramid and Dietary Guidelines are alarmingly similar to the USDA guidelines for *fattening cattle and other livestock, which are approximately 10% protein, 29% fats and* 61% carbohydrates.[6]

The Guidelines were first developed during the late 1970s in response to the growing incidence of coronary heart disease (CHD) in this country and research that purportedly showed that saturated fat and cholesterol were the culprits in the escalation of CHD. The lipid theory of heart disease became the prevailing mantra of the health and medical community.

Dr. Ancel Keys first proposed the lipid theory of heart disease in the 1950's. The theory basically states that there is a direct relationship between the amount of saturated fat and cholesterol in the diet and the incidence of coronary heart disease. The health community assures us that the lipid hypothesis is backed by incontrovertible scientific *proof. Most people would be surprised to learn that there is, in fact, very little evidence* to support the contention that a diet low in cholesterol and saturated fat actually reduces death from heart disease or in any way increases one's life span.[7]

What actually happened, though, can be likened to the stock market.[8] Stock markets often give rise to a boom-bust process, or bubble. Bubbles go not grow out of the blue; they have a basis in reality – but a reality distorted by a misconception (lipid theory of heart disease). Under normal conditions misconceptions are self-correcting. The stock markets will move toward some form of equilibrium. Upon occasion, a misconception is reinforced by a trend prevailing in reality (escalating incidence of heart disease), and that is when the boom-bust process begins. Eventually, the gap between reality and its false interpretation becomes unsustainable and the bubble bursts (currently heading towards a burst of the lipid theory).

During the self-reinforcing phase, participants are under the spell of the prevailing bias (lipid theory and low-fat diets). Clinical events and research seem to confirm their beliefs, strengthening their misconceptions. This widens the gap and sets the stage for a moment of truth and eventual reversal. When the reversal comes, it can have major consequences. However, the momentum of the bubble can be reversed at any time and adverse effects can be reduced or avoided altogether. Such noted bubbles that burst

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with consequences include the extremes of the information-technology boom – dot.com's – that ended in 2000.

The lipid theory of heart disease is the element of reality that is being distorted. As mentioned previously significant current research abounds refuting this theory.[9] The proposition that low fat diets and the Food Pyramid are the way to better health is the misconception. Growing incidence of obesity as well the fact that heart disease that has not decreased since the launch of the misconceptions are bursting the bubble.

Public health officials have recommended "low-fat" diets for most modern diseases, particularly for treatment of obesity.[10] However, not all researchers accept the theory that fat intake causes obesity. In fact, there is no conclusive evidence from epidemiologic studies that dietary fat intake promotes the development of obesity *independently of total energy intake.*[11]

Many researchers now recognize that one of the most important factors in preventing weight gain involves the total amount of calories consumed, a view that matches the understanding of clinicians half a century ago. When a significant portion of these calories comes from healthy fats, the body experiences satiety and overall caloric intake is reduced. Nevertheless the common recommendation continues to be a "low-fat" diet for treating obesity in spite of research reporting better results with the lower-carbohydrate, higher fat diet.[12,13,14,15,16,17,18,19,20]

But, what are healthy fats? Beneficial fats include unrefined saturated and monounsaturated fats including butter and other animal fats, palm oil and coconut oil, olive oil and peanut oil. We would also include flaxseed oil for its high omega-3 essential fatty acid content. We do not include refined polyunsaturated vegetable oils.

Pediatrician clinicians have noted a number of years ago that children put onto a low fat and low cholesterol diets failed to grow properly.[21] When researchers prominently associated with the American Heart Association fed children lower fat diets and measured some of the health markers they consider important predictors of heart disease, they learned that these lower fat diets were causing the very problems they wanted to prevent. The children whose genes would normally have been producing the desirable form of low-density lipoproteins - light fluffy LDL - started to make the dangerous form of LDL - small dense LDL's.[22]

We are at a place when the bubble that has led to the current levels of obesity can be reversed. Let us see now how that can take place.

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FATS

The current Guidelines stipulate that total fats should make up 30 percent or less of total calories, with saturated fats contributing to not more than 10 percent of total calories. The Guidelines are based on the assumption that we should reduce our intake of fats, particularly saturated fats from animal sources. Fats from animal sources also contain cholesterol, presented as the twin villain of the civilized diet.

However, dietary fats play many vital roles in the body chemistry. Fats provide a concentrated source of energy in the diet; they also provide the building blocks for cell membranes and a variety of hormones and hormone-like substances. Fats as part of a meal slow down absorption so that we can go longer without feeling hungry. In addition, they act as carriers for important fat-soluble vitamins A, D, E and K. Dietary fats are needed for the conversion of carotene to vitamin A, for mineral absorption and for a host of other processes.

By analyzing menus from early 20th century cookbooks, we can estimate that the fat content of the diets at that time was about 35-40 percent of energy as fat.[23] Fats contain about twice as many calories per gram as protein or carbohydrate foods. In a diet of 2500 calories, 35 percent of calories as fat translates to 97 grams of fat (slightly less than 1/2 cup) per day, as added fat or distributed in the foods.

Fatty Acid Classifications by Saturation

Fatty acids are classified in the following way:

Saturated: A fatty acid is saturated when all available carbon bonds are occupied by a hydrogen atom. They are highly stable, because all the carbon-atom linkages are filled—or saturated—with hydrogen. This means that they do not normally go rancid, even when heated for cooking purposes. They are straight in form and hence pack together easily, so that they form a solid or semisolid fat at room temperature. Your body makes saturated fatty acids from carbohydrates and they are found in animal fats and tropical oils.

Monounsaturated: Monounsaturated fatty acids have one double bond in the form of two carbon atoms double-bonded to each other and, therefore, lack two hydrogen atoms. Your body makes monounsaturated fatty acids from saturated fatty acids and uses them in a number of ways. Monounsaturated fats have a kink or bend at the position of the double bond so that they do not pack together as easily as saturated fats and, therefore, tend to be liquid at room temperature. Like saturated fats, they are relatively stable. They do not go rancid easily and hence can be used in cooking. The monounsaturated fatty acid most commonly found in our food is oleic acid, the main component of olive oil as well as the oils from almonds, pecans, cashews, peanuts and avocados.

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Polyunsaturated: Polyunsaturated fatty acids have two or more pairs of double bonds and, therefore, lack four or more hydrogen atoms. The two polyunsaturated fatty acids found most frequently in our foods are double unsaturated linoleic acid, with two double bonds—also called omega-6; and triple unsaturated linolenic acid, with three double bonds—also called omega-3. (The omega number indicates the position of the first double bond.) Your body cannot make these fatty acids and hence they are called "essential." We must obtain our essential fatty acids or EFA's from the foods we eat. The polyunsaturated fatty acids have kinks or turns at the position of the double bond and hence do not pack together easily. They are liquid, even when refrigerated. The unpaired electrons at the double bonds makes these oils highly reactive. They go rancid easily, particularly omega-3 linolenic acid, and must be treated with care. Polyunsaturated oils should never be heated or used in cooking. In nature, the polyunsaturated fatty acids are usually found in the *cis* form, which means that both hydrogen atoms at the double bond are on the same side.

All fats and oils, whether of vegetable or animal origin, are some combination of saturated fatty acids, monounsaturated fatty acids and polyunsaturated omega 6 linoleic acid and omega 3 linolenic acid. In general, animal fats such as butter, lard and tallow contain about 40-60% saturated fat and are solid at room temperature. Vegetable oils from northern climates contain a preponderance of polyunsaturated fatty acids and are liquid at room temperature. But vegetable oils from the tropics are highly saturated. Coconut oil, for example, is 92% saturated. These fats are liquid in the tropics but hard as butter in northern climes. Vegetable oils are more saturated in hot climates because the increased saturation helps maintain stiffness in plant leaves. Olive oil with its preponderance of monounsaturated oleic acid is the product of a temperate climate. It is liquid at warm temperatures but hardens when refrigerated.

Classification of Fatty Acids by Length

Researchers classify fatty acids not only according to their degree of saturation but also by their length.

Short-chain fatty acids have four to six carbon atoms. These fats are always saturated. Four-carbon butyric acid is found mostly in butterfat from cows, and six-carbon capric acid is found mostly in butterfat from goats. These fatty acids have antimicrobial properties—that is, they protect us from viruses, yeasts and pathogenic bacteria in the gut. They do not need to be acted on by the bile salts but are directly absorbed for quick energy. For this reason, they are less likely to cause weight gain than olive oil or commercial vegetable oils.[24] Short-chain fatty acids also contribute to the health of the immune system.[25]

Medium-chain fatty acids have eight to twelve carbon atoms and are found mostly in butterfat and the tropical oils. Like the short-chain fatty acids, these fats have antimicrobial properties; are absorbed directly for quick energy; and contribute to the health of the immune system.

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Long-chain fatty acids have from 14 to 18 carbon atoms and can be either saturated, monounsaturated or polyunsaturated. Stearic acid is an 18-carbon saturated fatty acid found chiefly in beef and mutton tallows. Oleic acid is an 18-carbon monounsaturated fat which is the chief component of olive oil. Another monounsaturated fatty acid is the 16-carbon palmitoleic acid, which has strong antimicrobial properties. It is found almost exclusively in animal fats. The two essential fatty acids are also long chain, each 18 carbons in length. Another important long-chain fatty acid is gamma-linolenic acid (GLA), which has 18 carbons and three double bonds. It is found in evening primrose, borage and black currant oils. Your body makes GLA out of omega-6 linoleic acid and uses it in the production of substances called prostaglandins, localized tissue hormones that regulate many processes at the cellular level.

Very-long-chain fatty acids have 20 to 24 carbon atoms. They tend to be highly unsaturated, with four, five or six double bonds. Some people can make these fatty acids from EFA's, but others, particularly those whose ancestors ate a lot of fish, lack enzymes to produce them. These "obligate carnivores" must obtain them from animal foods such as organ meats, egg yolks, butter and fish oils. The most important very-long-chain fatty acids are dihomo-gamma-linolenic acid (DGLA) with 20 carbons and three double bonds; arachidonic acid (AA) with 20 carbons and four double bonds; eicosapentaenoic acid (EPA) with 20 carbons and five double bonds; and docosahexaenoic acid (DHA) with 22 carbons and six double bonds. All of these except DHA are used in the production of prostaglandins. In addition, AA and DHA play important roles in the function of the nervous system.[26]

See Appendix I for a detailed description of the composition of various commonly-used fats and oils.

During the early 20th century, most of the fatty acids in the diet were either saturated or monounsaturated, primarily from butter, lard, tallows, coconut oil and small amounts of olive oil. Today, most of the fats in our diet are polyunsaturated, primarily from vegetable oils derived from soy, corn, safflower, sunflower, cottonseed and rape seed (canola – primarily monounsaturated) as depicted in Table I.

Table I: Changes in U.S. Dietary Fats During the 20th Century (grams/capita/day)

Year	Total Fat	Saturated Fat	Unsaturated Fat
1909-19	120	50	60
1990-99	159	51	100

Adopted from Cordain, L, Eades, MR, "Hyperinsulinemic Diseases of Civilization: More Than Just Syndrome X," *Comparative Biochemistry and Physiology*, Part A, 136 (2003): 95-112, p. 100.

Table I indicates that total daily per capita fat consumption increased by about 33 percent between 1909 and 1999, saturated fat consumption remained nearly constant. A marked 67 percent rise in intake of unsaturated oils, mostly in the form of vegetable oils, accounted for almost all of the increased dietary fat during this time.

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Fatty acids found in foods that are natural to the human body include:[27]

Saturated Fats

- Palmitic acid **
- Stearic acid **
- Myristic acid **
- Lauric acid ***

Monounsaturated Fats

- Palmitoleic acid **
- Oleic acid **

Polyunsaturated Fats

- Linoleic (omega 6) essential fatty acid *
- Alpha linolenic (omega 3) essential fatty acid *
- Gamma linolenic acid **
- Arachidonic acid **
- Eicosapentaenoic acid **
- Docosahexaenoic acid **

* these fatty acids are used and needed by the body, but the body does not make them; they are called essential fatty acids (EFA)

** these fatty acids are used and needed by the body and the body makes them

*** this fatty acid is made by certain parts of the body such as the lactating mammary gland, but must come from the diet so it is a conditionally essential fatty acid

Fatty acids found in foods that are *not* natural to the human body include almost all of the *trans* fatty acids, commonly found in processed foods.

Let us take a look at how the fatty acid profile of the human body compares to common dietary animal and vegetable/nut fats in Table II.

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Table II: Average Fatty Acid Profiles of Some Common Fats and Oils

	Saturated Fats (%)	Monounsaturated Fats (%)	Polyunsaturated Fats (%) Total	Omega 3	Omega 6
Human	**43**	**47**	**10**		
Human Milk Fat	48	33	16		
Animal					
Beef Tallow	56	39	5	1	2
Butter*	66 (14* + 52)	30	4	<1	3
Lard	41	47	12	<1	10
Chicken Fat	38	42	20	1	19
Salmon	17-28	37-49	23-45		
Vegetable/ Nut					
Canola (unrefined)	6	56-64	31-38	10	19-26
Coconut*	91 (63* + 28)	6	3		2
Corn	14	28	58	1	57
Flax	9	17	74	60	14
Olive	17	71	11	<1	10
Peanut	17	46	37		31
Palm	50	40	10		10
Palm Kernal *	83 (56* + 27)	18	1		1
Safflower - high linoleic variety	8	13	79		78
Safflower – high oleic variety	7	80	12		12
Sesame	15	41	44		43
Soy (unrefined)	15	23	62	8	53

* Coconut and Palm Kernal Oil are high in short and medium chain fatty acids (63% for Coconut Oil and 56% in Palm Kernal Oil) while butter generally has about 14% of its saturated fat as short and medium chain fatty acids. Caloric content and metabolism of short and medium chain saturated fats is closer to that of carbohydrates. Long chained saturated fatty acids produce more calories per equivalent weight than short and medium chained fatty acids.

Source: Human Fat: Bettelheim FA, Brown WH, March J, *Introduction to General Organic and Biochemistry*, sixth edition, (Brooks/Cole, 2001), p. 474. Animal and vegetable/nut fatty acid profiles: Enig, Mary, *Know Your Fats: The Complete Primer for Understanding the Nutrition of Fats, Oils and Cholesterol* (Silver Spring, MD, Bethesda Press, 2000), pp. 113-152 and Table D-1, p. 294.

Forty-three percent of the fat produced and stored by the human body is saturated. This fatty acid profile is quite similar to that of the other animal fats, especially lard, which is produced from pigs. Vegetable oil fat profiles are quite different than the human and animal fatty acid profile, much higher in polyunsaturated oils, especially omega 6 essential fatty acid.

Tissues of temperate or northern plants, fish, and other cold-blooded animals typically produce highly unsaturated fats, while warm-blooded animals, including human beings, and tropical plants (coconut and palm oil) produce more saturated fats. This difference

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is caused by the melting point of the various fats. Animals and plants inhabiting colder climates or having low body temperatures produce more unsaturated oils because these fats are sufficiently fluid at low temperatures; saturated fats would be too stiff.

In contrast, unsaturated fats would be too fluid for warm-blooded humans and animals and tropical plants to create the needed fatty pads, fat storage deposits, and strong and workable cell membranes. Unsaturated fats are prone to produce carcinogenic peroxides in warm oxygen-rich environments, such as in the human body. Saturated fats are combined with the unsaturated fats in nature to provide necessary antioxidants and protection for the essential fatty acids.[28]

It should be noted that animals store fat mainly as a reservoir of energy for use between meals or when food is scarce. The human body runs on its saturated fat stores between meals and during food scarcity, including fasting. The resting muscles, heart and liver together consume most of the energy used by the body. Their tissues prefer saturated fat for fuel.[29]

Saturated Fats

The human body makes its own saturated fats because they are essential to our health and well-being. The fatty pads that that protect bony surfaces (sitting bones, palms and soles of the feet) and fat deposits that cushion internal organs are largely made up of saturated fats. Saturated fats are used in the cell membrane to resist the penetration of parasites, viruses and bacteria. In addition, saturated fats play an important role in the nervous system and the brain. The grey matter of the nervous system is composed largely of sphingomyelin, a compound that incorporates one saturated fatty acid, most commonly palmitic or stearic acids.[30] The white matter of the brain is composed largely of phosopholipids, again incorporating palmitic or stearic acids. About one-third of the brain is composed of saturated fats.

The Foundation recommends that the USDA discontinue its unscientific opposition to animal fats. Animal fats are stable, do not easily develop free radicals, and contain nutrients that are vital for good health. Children, in particular, require high levels of quality animal fats to achieve optimal physical and neurological development. In addition, animal fats have been highly valued in all traditional cultures.[31]

During the sixty-year period from 1910 to 1970, the proportion of traditional animal fat in the American diet declined from 83% to 62%, and butter consumption plummeted from eighteen pounds per person per year to four. During the past eighty years, dietary cholesterol intake has increased only 1%. During the same period the percentage of dietary vegetable oils in the form of margarine, shortening and refined oils increased about 400% while the consumption of sugar and processed foods increased about 60%.[32]

Foods containing *trans* fat sell because the American public is afraid of the alternative—saturated fats found in tallow, lard, butter, palm and coconut oil, fats traditionally used

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for frying and baking. Yet the scientific literature delineates a number of vital roles for dietary saturated fats:

- Saturated fatty acids constitute at least 50% of most of the cell membranes. They are what furnish our cells necessary stiffness and integrity.
- They play a vital role in the health of our bones. For calcium to be effectively incorporated into the skeletal structure, at least 50% of the dietary fats should be saturated.[33]
- They lower Lp(a), a substance in the blood that indicates proneness to heart disease.[34]
- They protect the liver from alcohol and other toxins, such as Tylenol.[35]
- They enhance the immune system.[36]
- They are needed for the proper utilization of essential fatty acids. Elongated omega-3 fatty acids are better retained in the tissues when the diet is rich in saturated fats.[37]
- Stearic acid and palmitic acid are the preferred foods for the heart, which is why the fat around the heart muscle is highly saturated.[38] The heart draws on this reserve of fat in times of stress.
- Short- and medium-chain saturated fatty acids have important antimicrobial properties. They protect us against harmful microorganisms in the digestive tract.

The scientific evidence, honestly evaluated, does not support the assertion that "artery-clogging" saturated fats cause heart disease.[39] Actually, evaluation of the fat in artery clogs reveals that only about 26% is saturated. The rest is unsaturated, of which more than half is polyunsaturated.[40] Although consumption of saturated fatty acids in an institutional setting has been shown to temporarily raise serum cholesterol levels, there is no evidence that consumption of saturated fats from animal sources and the tropical oils contributes to heart disease.[41]

See Appendix II "Saturated Fats are Beneficial, Not Harmful" for a more complete list of the benefits of saturated fats.

Cholesterol

Our blood vessels can become damaged in a number of ways—through irritations caused by free radicals or viruses, or because they are structurally weak—and when this happens, the body's natural healing substance steps in to repair the damage. That substance is cholesterol. Cholesterol is a high-molecular-weight alcohol that is manufactured in the liver and in most human cells. Like saturated fats, the cholesterol we make and consume plays many vital roles.

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Cholesterol is not the cause of heart disease but rather a potent antioxidant weapon against free radicals in the blood, and a repair substance that helps heal arterial damage, although the arterial plaques themselves contain very little cholesterol. The cholesterol in your diet (dietary cholesterol) has very little effect on the cholesterol in your blood (serum cholesterol). You could completely eliminate all cholesterol from your diet and your liver would just produce more of it, because your body needs cholesterol. On the other hand, eating more cholesterol would cause your liver to reduce production to maintain consistent levels.

More than 60 percent of all heart attacks occur in people with normal cholesterol levels. The majority of people with high cholesterol never suffer heart attacks and half of all heart attack victims have none of the standard risk factors, i.e., obesity, high cholesterol, smoking or genetics.

Like fats, however, cholesterol may be damaged by exposure to heat and oxygen. This damaged or oxidized cholesterol seems to promote both injury to the arterial cells (endothelium – the layer of tissue that lines all of our arteries and veins) as well as a pathological buildup of plaque in the arteries.[42] Damaged cholesterol is found in powdered eggs, in powdered milk (added to reduced-fat milks to give them body) and in meats and fats that have been heated to high temperatures in frying and other high-temperature processes.

See Appendix III for a more complete list of the benefits of cholesterol.

Breast milk is especially rich in cholesterol and contains a special enzyme that helps the baby utilize this nutrient. Babies and children need cholesterol-rich foods throughout their growing years to ensure proper development of the brain and nervous system.

High serum cholesterol levels often indicate that the body needs cholesterol to protect itself from high levels of altered, free-radical-containing fats. Just as a large police force is needed in a locality where crime occurs frequently, so cholesterol is needed in a poorly nourished body to protect the individual from a tendency to heart disease and cancer. Dietary cholesterol plays an important role in maintaining the health of the intestinal wall,[43] which is why low-cholesterol vegetarian diets can lead to leaky gut syndrome and other intestinal disorders.[44]

Poor thyroid function (hypothyroidism) will often result in high cholesterol levels. When thyroid function is poor, usually due to a diet high in sugar and low in usable iodine, fat-soluble vitamins and other nutrients, the body floods the blood with cholesterol as an adaptive and protective mechanism, providing a superabundance of materials needed to heal tissues and produce protective steroids. Hypothyroid individuals are particularly susceptible to infections, heart disease and cancer.[45]

Framingham Heart Study is often cited as proof of that cholesterol and saturated fats cause heart disease. This study began in 1948 and involved some 6,000 people from

the town of Framingham, Massachusetts. Two groups were compared at five-year intervals—those who consumed little cholesterol and saturated fat and those who consumed large amounts. After 40 years, the director of this study, Dr. William Castelli, had to admit: **"In Framingham, Mass, the more saturated fat one ate, the more cholesterol one ate, the more calories one ate, the lower the person's serum cholesterol. . . we found that the people who ate the most cholesterol, ate the most saturated fat, ate the most calories, weighed the least and were the most physically active."**[46] The study did show that those who weighed more and had abnormally high blood cholesterol levels were slightly more at risk for future heart disease; but weight gain and cholesterol levels had an inverse correlation with fat and cholesterol intake in the diet.[47]

Animal foods containing saturated fat and cholesterol provide vital nutrients necessary for growth, energy and protection from degenerative disease. Like sex, animal fats are necessary for reproduction. Humans are drawn to both by powerful instincts. "Whatever is the cause of heart disease," said the eminent biochemist Michael Gurr, "it is not primarily the consumption of saturated fats.[48]

Polyunsaturated Fats and Vegetable Oils

Polyunsaturated fatty acids occur in small amounts in all foods. Polyunsaturated oils contain large amounts of polyunsaturated fatty acids. Commercial polyunsaturated oils made from corn, soy, safflower and sunflower seeds are new to human diets. The use of these industrially processed oils is four fold higher today than it is was in 1900.[49]

Since the early part of the 20th century, when the Department of Agriculture (USDA) had begun to keep track of food "disappearance" data—the amount of various foods going into the food supply—a number of researchers had noticed a change in the kind of fats Americans were eating. Butter consumption was declining while the use of vegetable oils, especially oils that had been hardened to resemble butter by a process called hydrogenation, was increasing. By 1950 butter consumption had dropped from eighteen pounds per person per year to just over ten. Margarine filled in the gap, rising from about two pounds per person at the turn of the 20th century to about eight. Consumption of vegetable shortening—used in crackers and baked goods—remained relatively steady at about twelve pounds per person per year but vegetable oil consumption had more than tripled—from just under three pounds per person per year to more than ten.[50]

Polyunsaturated fatty acids are very fragile. When exposed to heat and oxygen, as during commercial processing, they form free radicals and other harmful breakdown products that damage the body in many ways.[51] Modern processing destroys the vitamins and antioxidants in vegetable oils, but the pesticides used on the seeds are retained.[52] Seed oils are highly sprayed. Because polyunsaturates are highly subject to rancidity, they increase the body's need for vitamin E and other antioxidants.

See Appendix IV for modern methods of processing fats.

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Researchers have found that commercial vegetable oils (polyunsaturated oils) contain free radicals and dangerous breakdown products that can cause heart disease, cancer, inflammation and aging, as well as increased obesity. In the young, diets based on vegetable oils depress learning and cause growth problems. Furthermore, these oils are often partially hydrogenated and contain dangerous *trans* fatty acids.[53]

Research has determined that:

- *Polyunsaturated oils cause the formation of black-brown ceroid pigment deposits,* a sign of aging.[54]

- In animal studies, polyunsaturated oil shortens life span and increases the possibility of atherosclerosis, cancer and other disease.[55]

- Polyunsaturated oils increase the levels of uric acid in the body, a sign of the destruction of protein. An elevated level of uric acid is a heart disease risk factor.[56]

- In animals, consumption of excessive polyunsaturates causes cirrhosis of the liver, similar to that caused by excessive alcohol.[57]

- Many studies have shown that polyunsaturated oils cause cancer.[58]

- Polyunsaturated oils are particularly damaging to the reproductive organs and the lungs.[59]

- Polyunsaturated oils depress learning ability, especially under conditions of stress.[60]

- Polyunsaturated oils given to young animals impair growth.[61]

- When heated, as in cooking, polyunsaturated oils bond to each other forming polymers, leading to digestive problems (varnish and shellac are polymers).[62]

Excess use of commercial vegetable oils interferes with the production of prostaglandins leading to an array of complaints ranging from autoimmune disease to PMS. Disruption of prostaglandin production leads to an increased tendency to form blood clots, and hence myocardial infarction.[63]

See Appendix V "Adverse Effects of Excess Polyunsaturated Oils" for detailed list of the health impact of these oils.

Trans Fatty Acids

Trans fatty acids are found in very minor amounts, usually less than 2 percent but sometimes up to 5 percent of the total fat, in all naturally occurring ruminant fats (antelope, buffalo, cow, deer, goat and sheep). They are found in major amounts, as

much as 50 to 60 percent or more of the total fat, in partially hydrogenated vegetable oils.[64]

Actually the kinds of *trans* fatty acids found in ruminant fats differ considerably from those found in partially hydrogenated vegetable oils because of the average placement of the *trans* double bonds. This form of *trans* fats found in ruminant animals is a precursor to conjugated linoleic acid (CLA), which is reported to be anticarcinogenic.[65]

The major *trans* fatty acids found in partially hydrogenated vegetable oils have the majority of their double bonds in sites along the 18 carbon fatty acid that are found to raise health problems. A French chemist named Sabatier first discovered the technology by which liquid vegetable oils could be hardened to make margarine. He found that a nickel catalyst would cause the hydrogenation—the addition of hydrogen to unsaturated bonds to make them saturated—of ethylene gas to ethane. Subsequently the British chemist Norman developed the first application of hydrogenation to food oils and took out a patent. In 1909, Procter & Gamble acquired the US rights to the British patent that made liquid vegetable oils solid at room temperature. The process was used on both cottonseed oil and lard to give "better physical properties"—to create shortenings that did not melt as easily on hot days.

The hydrogenation process transforms unsaturated oils into straight "packable" molecules, by rearranging the hydrogen atoms at the double bonds. In nature, most double bonds occur in the *cis* configuration, that is with both hydrogen atoms on the same side of the carbon chain at the point of the double bond. It is the *cis* isomers of fatty acids that have a bend or kink at the double bond, preventing them from packing together easily. Hydrogenation creates *trans* double bonds by moving one hydrogen atom across to the other side of the carbon chain at the point of the double bond. In effect, the two hydrogen atoms then balance each other and the fatty acid straightens, creating a packable "plastic" fat with a much higher melting temperature.

Although *trans* fatty acids are technically unsaturated, they are configured in such a way that the benefits of unsaturation are lost. The presence of several unpaired electrons presented by contiguous hydrogen atoms in their *cis* form allows many vital chemical reactions to occur at the site of the double bond. When one hydrogen atom is moved to the other side of the fatty acid molecule during hydrogenation, the ability of living cells to make reactions at the site is compromised or altogether lost. *Trans* fatty acids are sufficiently similar to natural fats that the body readily incorporates them into the cell membrane; once there their altered chemical structure creates havoc with thousands of necessary chemical reactions—everything from energy provision to prostaglandin production.

After the Second World War, "improvements" made it possible to plasticize highly unsaturated oils from corn and soybeans. New catalysts allowed processors to "selectively hydrogenate" the kinds of fatty acids with three double bonds found in soy and canola oils. Called "partial hydrogenation," the new method allowed processors to replace cottonseed oil with more unsaturated corn and soybean oils in margarines and

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shortenings. This spurred a meteoric rise in soybean production, from virtually nothing in 1900 to 70 million tons in 1970, surpassing corn production. Today soy oil dominates the market and is used in almost eighty percent of all hydrogenated oils.

When people eat fats containing these forms of *trans* fatty acids, the fatty acids are deposited in varying amounts in some of the tissues. *Trans* fats from partially hydrogenated vegetable oils also can have a negative impact on the functioning of organs in the body. *Trans* fatty acids from partially hydrogenated vegetable oils disrupt cellular function, which affects enzyme functionality. These *trans* fats interfere with the necessary conversions of both the omega-6 and omega-3 essential fatty acids (EFA) to their elongated forms and consequently escalate the adverse effects of EFA deficiency (see next section on essential fatty acids).

Most of the *trans* isomers in modern hydrogenated fats are new to the human physiology and by the early 1970's a number of researchers had expressed concern about their presence in the American diet, noting that their increasing use had paralleled the increase in both heart disease and cancer.[66] In fact, as early as 1958 Ancel Keys originally claimed that partially hydrogenated vegetable oils with their *trans* fatty acids were the culprits in heart disease, not saturated fats.[67]

Most of the *trans* fats in the current American diet come not from margarine but from shortening used in fried and processed foods. American shortening consumption of 10 grams per person per day held steady until the 1960's, although the content of that shortening had changed from mostly lard, tallow and coconut oil—all natural fats—to partially hydrogenated soybean oil. Then shortening consumption shot up and by 1993 had tripled to over 30 grams per person per day.[68]

The particular mix of fatty acids in soy oil results in shortenings containing about 40% trans fats, an increase of about 5% over cottonseed oil, and 15% over corn oil. Canola oil, processed from a hybrid form of rape seed, is particularly rich in fatty acids containing three double bonds and the shortening can contain as much as 50% *trans* fats. *Trans* fats of a particularly problematical form are also formed during the deodorization of canola oil, although they are not indicated on labels for the liquid oil.[69]

Approximately 70 percent of all the vegetable oils used in processed foods such as crackers, cookies, pastries, cakes, and fried foods are partially hydrogenated and therefore contain high levels of *trans* fats.[70] The commercial shortenings used in these products have 25-50 percent of the fat as *trans* fats; commercial shortenings made with partially hydrogenated canola oils have the same or even higher levels of *trans* fatty acids. **This means that the fat ingredient in cookies, crackers, donuts, cakes, frostings, etc. is between one-quarter and one half *trans* fatty acids.**[71]

Trans* fatty acids in the diet, created from partially hydrogenating vegetable oils, have been implicated as causing or exacerbating most of our modern diseases, *including heart disease, cancer, diabetes, obesity, immune dysfunction and bone

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loss. Some adverse effects of consuming *trans* fatty acids reported in humans and animals are the following:

- increases blood insulin levels in humans in response to glucose load, increasing risk for diabetes;
- interfere with the ability of new mothers to nurse successfully and increase the likelihood of developing diabetes (lowers the amount of cream by volume in milk from lactating females in all species studied, including humans, thus lowering the overall quality available to an infant);
- predispose pregnant mothers to low-birth-weight babies;
- causes a dose response decrease in visual acuity in infants who are fed human milk with increasing levels of *trans* fatty acids, which extends to 14 months of age;
- affects immune response by lowering efficiency of B cell response and increasing proliferation of T cells;
- decreases the response of the red blood cell to insulin, thus having a potentially undesirable effect on diabetes;
- causes alterations in adipose cell size, cell number, lipid class, and fatty acid composition;
- contributes to osteoporosis;
- decreases testosterone, causes the production of abnormal sperm and altered gestation;
- causes adverse alterations in the activities of the important enzyme system that metabolizes chemical carcinogens and drugs;
- precipitates childhood asthma;
- interferes with the body's use of omega-3 fatty acids found in fish oils, grains and green vegetables, leading to impaired prostaglandin production;
- increases the incidence of heart disease because *trans* fatty acids lower HDL cholesterol, increase LDL and increase the heart disease marker Lipoprotein [a] (Lp[a]) while saturated fats lower Lp[a};
- raises total serum cholesterol levels 20-30mg%; and

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- causes adverse alterations in physiological properties of biological membranes including measurements of membrane transport and membrane fluidity.

(Table derived from Mary Enig, PhD, *Trans Fatty Acids in the Food Supply: A Comprehensive Report Covering 60 Years of Research*, 2nd Edition, Bethesda Press, 1995 and Mary Enig, *Know Your Fats: The Complete Primer for Understanding the Nutrition of Fats, Oils and Cholesterol*, Bethesda Press, 2000, pp 42-44 and 85-86).

The Foundation is pleased with the recent FDA ruling requiring food labels to incorporate information on *trans* fatty acid content by 2006.[72] However, we wish to make it very clear that *trans* fatty acids are not natural saturated fats and should not be considered as such. Many researchers, health organizations and food companies tend to lump saturated fats and *trans* fatty acids together as the same, particularly for food labeling purposes. This is a grave mistake that has contributed to incorrectly associating beneficial saturated fatty acids with the negative health implications of *trans* fatty acids.

However, the Foundation does not support the National Academy of Science Institute of Medicine's (IOM) recent advisory that nutrition labeling for foods list a combined Daily Value (DV) for saturated and trans fatty acids. The IOM ostensibly included this recommendation "so consumers will know that both contribute to cardiac health risk."[73] The IOM said that a combined DV for saturated and trans fat would help educate the consumer that, although the two components are chemically different, "neither is desirable in terms of [cardiac health risk]." The Foundation finds this advisory to be ill-advised and ill-considered, considering the negative health implications of *trans* fatty acids and the healthful aspects of saturated fats.

Essential Fatty Acids

Essential fatty acids are required for human and animal life. The body cannot make the most common form of EFA's - omega-3 and omega-6 essential fatty acids - and must be provided by the diet. EFA's are precursor molecules to prostaglandins, which are locally produced hormones that control different physiological functions. Essential fatty acids and their elongated forms are part of the structural matrix of the cell membrane along with many other fatty acids.

Problems associated with an excess polyunsaturated consumption are exacerbated by the fact that most polyunsaturates in commercial vegetable oils are in the form of omega-6 linoleic essential fatty acid (EFA), with very little of vital omega-3 linolenic EFA. Some of the published research has shown that we currently consume a ratio of omega-6 to omega-3 of 20 to one, far beyond the beneficial range of one to one to four to one.

Analyses have revealed that too much omega-6 in the diet creates an imbalance that can interfere with production of important prostaglandins.[74] This disruption can result in increased tendency to form blood clots, inflammation, high blood pressure, irritation of

the digestive tract, depressed immune function, sterility, cell proliferation, cancer and weight gain.[75]

A number of researchers have argued that along with a surfeit of omega-6 fatty acids the American diet is deficient in the more unsaturated omega-3 linolenic acid. This fatty acid is necessary for cell oxidation, for metabolizing important sulphur-containing amino acids and for maintaining proper balance in prostaglandin production. Deficiencies have been associated with asthma, heart disease and learning deficiencies.[76]

Modern agricultural and industrial practices have reduced the amount of omega-3 fatty acids in commercially available vegetables, eggs, fish and meat. For example, organic eggs from hens allowed to feed on insects and green plants can contain omega-6 and omega-3 fatty acids in the beneficial ratio of approximately between one-to-one to four to one; but commercial supermarket eggs can contain as much as nineteen times more omega-6 than omega-3.[77] Factory farmed cattle are fed grains rich in omega-6 EFAs in order to achieve maximum size in the least amount of time. The result is that grain-fed beef have almost undetectable amounts of omega-3 EFAs, while grass-fed cattle contain the beneficial ratios.[78]

Modern diets can contain as much as 30% of calories as polyunsaturated oils, but scientific research indicates that this amount is far too high. The best evidence indicates that our intake of polyunsaturates should not be much greater than 4% of the caloric total, in approximate proportions of 1 1/2 % omega-3 linolenic acid and 2 1/2 % omega-6 linoleic acid.[79]

In the last 100 years, since the advent of liquid vegetable oils and trend towards grain-fed livestock escalated, there has been an unprecedented shift in the balance of essential fatty acids in our diet. According to Dr. Mitra Ray, "To my knowledge, there is no precedent for such a drastic change in diet over such a short period of time."[80]

It should be noted that the Office of Management and Budget recently requested that information about the benefits of omega 3 essential fatty acids and what kinds of foods are sources of this EFA (fish oils and flaxseed oil) be incorporated into the Dietary Guidelines and Food Pyramid.[81]

When you lower the amount of fat in the diet, you must raise something else. That something else is usually carbohydrate, and invariably today it would be mostly simple carbohydrates such as white flour, corn syrup or refined sugar.

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CARBOHYDRATES

The Guidelines state that carbohydrates should comprise between 45 to 65 percent of food intake by calories. Carbohydrates provide fuel for the body in the form of glucose, which is a sugar. There are two types of carbohydrates -- simple and complex. Simple carbohydrates are sugars, such as the ones found in candy, fruits and baked goods. Complex carbohydrates are starches found in beans, nuts, vegetables and whole grains.

Sugar comes in many forms. Sucrose, or common table sugar, is a disaccharide, which breaks down during digestion into the simple sugars glucose and fructose. Glucose is the primary sugar in the blood; fructose is the primary sugar in fruit and high fructose corn syrup. Other common disaccharides are maltose (malt sugar) and lactose (milk sugar). Chemical terms ending in *-ose* indicate a sugar.

Complex sugars are longer-chain sugars composed of fructose and other simple sugars. Relatively short complex sugars called stachynose and raffinose occur in beans and other legumes; longer ones occur in certain plant foods like the Jerusalem artichoke and seaweed. Unlike herbivorous animals, humans lack digestive enzymes needed to break down these sugars into their simple components. Cooking breaks down these complex sugars to a certain extent.

In contrast, most humans are able to digest starch, a polysaccharide composed exclusively of glucose molecules. During the process of cooking, chewing and especially through prolonged enzymatic action during digestion, the starches are broken into separate glucose molecules. Glucose enters the bloodstream via the small intestine where it supplies energy wherever the body needs it—for accomplishing cellular processes, for thinking or for moving an arm or a leg.

As the body uses glucose for all its processes, it can be said that sugar is essential to life. But the body does not need to ingest sugar, or even large quantities of carbohydrates, to produce it. Certain isolated traditional groups, such as the Eskimos, the pre-Columbian plains Indians and the medieval inhabitants of Greenland, subsisted on diets composed almost entirely of animal products—protein and fats. Examination of the skulls of these groups shows a virtual absence of tooth decay, indicative of a high general level of health on a diet almost completely devoid of carbohydrate foods.

Only during the last century has man's diet included a high percentage of refined carbohydrates. Our ancestors ate fruits and grains in their whole, unrefined state. *In nature, sugars and carbohydrates—the energy providers—are linked together* with vitamins, minerals, enzymes, protein, fat and fiber—the bodybuilding and digestion-regulating components of the diet. In whole form, carbohydrates support life, but refined carbohydrates are inimical to life because they are devoid of bodybuilding elements.

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Refined Carbohydrates

Digestion of refined carbohydrates calls on the body's own store of vitamins, minerals and enzymes for proper metabolization. When B vitamins are absent, for example, the breakdown of carbohydrates cannot take place, yet most B vitamins are removed during the refining process.

The refining process strips grains, vegetables and fruits of both their vitamin and mineral components. Refined carbohydrates have been called "empty" calories. "Negative" calories is a more appropriate term because consumption of refined calories depletes the body's precious reserves.

Whole grains provide vitamin E, B vitamins in abundance, and many important minerals, all of which are essential to life. These are discarded in the refining process. Fiber—indigestible cellulose that plays an important role in digestion and elimination—is also removed. Refined flour is commonly fortified, but this is of little value. Fortification adds a handful of synthetic vitamins and minerals to white flour and polished rice after a host of essential factors have been removed or destroyed. Some of the vitamins added during the fortification process may even be dangerous. Some researchers believe that excess iron from fortified flour can cause tissue damage, and other studies link excess or toxic iron to heart disease.[82] Vitamins B_1 and B_2 added to grains without B_6 lead to imbalances in numerous processes involving B vitamin pathways. The safety of bromating and bleaching agents, almost universally applied to white flour, has never been established.

The Foundation recommends the use of a variety of whole grains but with an important caveat. Phosphorus in the bran of whole grains is tied up in a substance called phytic acid. Phytic acid combines with iron, calcium, magnesium, copper and zinc in the intestinal tract, blocking their absorption.[83] Whole grains also contain enzyme inhibitors that can interfere with digestion. Traditional societies usually soak or ferment their grains before eating them, processes that neutralize phytates and enzyme inhibitors and, in effect, predigest grains so that all their nutrients are more available.[84] Sprouting, overnight soaking and old-fashioned sour leavening can accomplish this important predigestion process in our own kitchens. Many people who are allergic to grains will tolerate them well when they are prepared according to these procedures. Proper preparation techniques also help break down complex sugars in legumes, making them more digestible.

Whole grains that have been processed by high heat and pressure to produce puffed wheat, oats and rice are actually quite toxic and have caused rapid death in test animals.[85] Breakfast cereals that have been slurried and extruded at high temperatures and pressures to make little flakes and shapes should also be avoided. Most, if not all, nutrients are destroyed during processing, and they are very difficult to digest. Studies show that these extruded whole grain preparations can have even more adverse effects on the blood sugar than refined sugar and white flour.[86] The process leaves phytic acid

intact but destroys phytase, an enzyme that breaks down some of the phytic acid in the digestive tract.

Consumption of sugar and white flour may be likened to drawing on a savings account. If continued withdrawals are made faster than new funds are put in, the account will eventually become depleted. Some people may go longer than others without overt suffering, but eventually all will feel the effects of this inexorable law. If you were fortunate enough to be born with an excellent constitution, you may be able to eat unlimited quantities of sugar with relative impunity, but your children's or your grandchildren's inheritance will be one of impoverished reserves.

The all-important level of glucose in the blood is regulated by a finely tuned mechanism involving insulin secretions from the pancreas and hormones from several glands, *including the adrenal glands and the thyroid. When sugars and starches are eaten in* their natural, unrefined form, as part of a meal containing beneficial and unrefined fats and protein, they are digested slowly and enter the bloodstream at a moderate rate over a period of several hours. If the body goes for a long time without food, this mechanism will call upon reserves stored in the liver. When properly working, this blood sugar regulation process provides our cells with a steady, even supply of glucose. The body is kept on an even keel, so to speak, both physically and emotionally.

But when we consume refined sugars and starches, particularly alone, without fats or protein, they enter the blood stream in a rush, causing a sudden increase in blood sugar. The body's regulation mechanism kicks into high gear, flooding the bloodstream with insulin and other hormones to bring blood sugar levels down to acceptable levels. Repeated onslaughts of sugar will eventually disrupt this finely tuned process, causing some elements to remain in a constant state of activity and others to become worn out and inadequate to do the job. A diet high in refined carbohydrates stimulates an abnormal pancreatic insulin response in order to moderate blood sugar levels, while high sugar intake may also increase adrenal cortisone and cholesterol levels. Constant high intake of simple dietary sugar over-stimulates or "burns out" normal, healthy pancreas and adrenal function.

The situation is exacerbated by the fact that a diet high in refined carbohydrates will also be deficient in vitamins, minerals and enzymes, those bodybuilding elements that keep the glands and organs in good repair. When the endocrine system thus becomes disturbed, numerous other pathological conditions soon manifest—degenerative disease, allergies, obesity, alcoholism, drug addiction, depression, learning disabilities and behavioral problems.

Sugars

As the consumption of sugar has increased, so have all the "civilized" diseases. In 1821, the average sugar intake in America was 10 pounds per person per year; today it is 170 pounds per person, representing over one-fourth the average caloric intake.[87] Another large portion of total calories comes from white flour and

refined vegetable oils.[88] This means that less than half the diet must provide all the nutrients to a body that is under constant stress from its intake of sugar, white flour and rancid and hydrogenated vegetable oils. Herein lies one of the root causes of the vast increase in degenerative diseases that plague modern America.

Sweetness in fruits, grains and vegetables is an indication that they are ripe and have reached maximum vitamin and mineral content. The naturally sweet foods from which sugar is extracted—sugar beet, sugar cane and corn—are particularly high in nutrients such as B vitamins, magnesium and chromium. All of these seem to play an important role in the blood sugar regulation mechanism. These nutrients are discarded—or made into animal feed—when the raw product is refined into sugar. Refining strips foods of vital nutrients while concentrating sugars, thus allowing us to fulfill our body's energy requirements without obtaining the nutrients needed for bodybuilding, digestion and repair.

Scientific evidence against sugar has been mounting for decades. As early as 1933, research showed that increased consumption of sugar caused an increase in various disease conditions in school children.[89] Sugar, especially fructose, has been shown to shorten life in numerous animal experiments.[90] Sugar consumption has recently been cited as the root cause of anorexia and eating disorders.[91] In the 1950s, British researcher Yudkin published persuasive findings that excessive use of sugar was associated with the following conditions: release of free fatty acids at the aorta; rise in blood cholesterol; rise in triglycerides; increase in adhesiveness of the blood platelets; increase in blood insulin levels; increase in blood corticosteroid levels; increase in gastric acidity; shrinkage of the pancreas and enlargement of the liver and adrenal glands.[92]

Numerous subsequent studies have positively correlated sugar consumption with heart disease.[93] These results are far more unequivocal than the presumed association of heart disease with saturated fats. Researchers Lopez in the 1960s and Ahrens in the 1970s have repeatedly pointed out the role of sugar as a cause of coronary heart disease, but their work has not received recognition by government agencies or by the press.

Sugar consumption is a cause of bone loss and dental decay. Tooth decay and bone loss occur when the precise ratio of calcium to phosphorus in the blood varies from the normal ratio of four parts phosphorus to ten parts calcium. At this ratio, all blood calcium can be properly utilized. Dr. Melvin Page, a Florida dentist, demonstrated in numerous studies that sugar consumption causes phosphorus levels to drop and calcium to rise.[94] Calcium rises because it is pulled from the teeth and the bones. The drop in phosphorus hinders the absorption of this calcium, making it unusable and therefore toxic. Thus, sugar consumption causes tooth decay not because it promotes bacterial growth in the mouth, as most dentists believe, but because it alters the internal body chemistry.

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More health issues than heart disease and dental decay can be laid at sugar's door. A survey of medical journals in the 1970s produced findings implicating sugar as a causative factor in kidney disease, liver disease, shortened life span, increased desire for coffee and tobacco, atherosclerosis and coronary heart disease.[95] Sugar consumption is associated with hyperactivity, behavior problems, lack of concentration and violent tendencies.[96] Sugar consumption encourages the overgrowth of *candida albicans*, a systemic fungus in the digestive tract, causing it to spread to the respiratory system, tissues and internal organs. Sugar consumption is positively associated with cancer in humans and test animals.[97] Tumors are known to be enormous sugar absorbers.

Moderate use of natural sweeteners is found in many traditional societies. Thus it is perfectly acceptable to satisfy your sweet tooth by eating fully ripened fruit in season and limited amounts of certain natural sweeteners high in vitamins and minerals, such as raw honey, date sugar, dehydrated cane sugar juice and maple syrup. Avoid all refined sugars including table sugar, so-called raw sugar or brown sugar (both composed of about 96 percent refined sugar), corn syrup, fructose and large amounts of fruit juice.

Research indicates that it is the fructose, not the glucose, moiety of sugar that is the most harmful, especially for growing children.[98] Yet the greatest increase in sugar consumption during the last two decades is from high fructose corn syrup used in soft drinks, ketchup and many other fabricated foods aimed at children.

High Fructose Corn Syrup

For many years, Dr. Meira Fields and her coworkers at the U.S. Department of Agriculture investigated the harmful effects of dietary sugar on rats. They discovered that when male rats are fed a diet deficient in copper, with sucrose as the carbohydrate, they develop severe pathologies of vital organs. Liver, heart and testes exhibit extreme swelling, while the pancreas atrophies, invariably leading to death of the rats before maturity.[99]

Sucrose is a disaccharide composed of 50 percent glucose and 50 percent fructose. Dr. Fields repeated her experiments to determine whether it was the glucose or fructose moiety that caused the harmful effects. Starch breaks down into glucose when digested. On a copper-deficient diet, the male rats showed some signs of copper deficiency, but not the gross abnormalities of vital organs that occur in rats on the sucrose diet. When the rats were fed fructose, the fatal organ abnormalities occurred.

Lysl oxidase is a copper-dependent enzyme that participates in the formation of collagen and elastin. Fructose seems to interfere with copper metabolism to such an extent that collagen and elastin cannot form in growing animals—hence the hypertrophy of the heart and liver in young males. The females did not develop these abnormalities, but they were reabsorbed into their litters.

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These experiments should give us pause when we consider the great increase in the use of high fructose corn syrup during the past 30 years, particularly in soft drinks, fruit juices and other beverages aimed at growing children, children increasingly likely to be copper deficient as modern parents no longer serve liver to their families. (Liver is by far the best source of copper in human diets.)

"The bodies of the children I see today are mush," observed a concerned chiropractor recently. The culprit is the modern diet, high in fructose and low in copper-containing foods, resulting in inadequate formation of elastin and collagen—the sinews that hold the body together.

Until the 1970s most of the sugar we ate came from sucrose derived from sugar beets or sugar cane. Then sugar from corn—corn syrup, fructose, dextrose, dextrine and especially high fructose corn syrup (HFCS)—began to gain popularity as a sweetener because it was much less expensive to produce. High fructose corn syrup can be manipulated to contain equal amounts of fructose and glucose, or up to 80 percent fructose and 20 percent glucose.[100] Thus, with almost twice the fructose, HFCS delivers a double danger compared to sugar.

(With regards to fruit, the ratio is usually 50 percent glucose and 50 percent fructose, but most commercial fruit juices have HFCS added. Fruit contains fiber, which slows down the metabolism of fructose and other sugars, but the fructose in HGCS is absorbed very quickly.)

In 1980 the average person ate 39 pounds of fructose and 84 pounds of sucrose. In 1994 the average person ate 66 pounds of sucrose and 83 pounds of fructose, providing 19 percent of total caloric energy.[101] Today approximately 25 percent of our average caloric intake comes from sugars, with the larger fraction as fructose.[102]

High fructose corn syrup is extremely soluble and mixes well in many foods. It is cheap to produce, sweet and easy to store. It's used in everything from bread to pasta sauces to bacon to beer as well as in "health products" like protein bars and "natural" sodas.

In the past, fructose was considered beneficial to diabetics because it is absorbed only 40 percent as quickly as glucose and causes only a modest rise in blood sugar.[103] However, research on other hormonal factors suggests that fructose actually promotes disease more readily than glucose. Glucose is metabolized in every cell in the body but all fructose must be metabolized in the liver.[104] The livers of test animals fed large amounts of fructose develop fatty deposits and cirrhosis, similar to problems that develop in the livers of alcoholics.

Pure fructose contains no enzymes, vitamins or minerals and robs the body of its micronutrient treasures in order to assimilate itself for physiological use.[105] While naturally occurring sugars, as well as sucrose, contain fructose bound to other sugars, high fructose corn syrup contains a good deal of "free" or unbound fructose. Research indicates that this free fructose interferes with the heart's use of key minerals like

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magnesium, copper and chromium. Among other consequences, HFCS has been implicated in elevated blood cholesterol levels and the creation of blood clots. It has been found to inhibit the action of white blood cells so that they are unable to defend the body against harmful foreign invaders.[106]

Studies on the Maillard reaction indicate that fructose may contribute to diabetic complications more readily than glucose. The Maillard reaction is a browning reaction that occurs when compounds are exposed to various sugars. Fructose browns food seven times faster than glucose, resulting in a decrease in protein quality and a toxicity of protein in the body.[107] This is due to the loss of amino acid residues and decreased protein digestibility. Maillard products can inhibit the uptake and metabolism of free amino acids and other nutrients such as zinc, and some advanced Maillard products have mutagenic and/or carcinogenic properties. The Maillard reactions between proteins and fructose, glucose, and other sugars may play a role in aging and in some clinical complications of diabetes.[108]

Fructose reduces the affinity of insulin for its receptor, which is the hallmark of type-2 diabetes. This is the first step for glucose to enter a cell and be metabolized. As a result, the body needs to pump out more insulin to handle the same amount of glucose.[109]

Nancy Appleton, PhD, clinical nutritionist, has compiled a list of the harmful effects of fructose in her books *Lick the Sugar Habit, Healthy Bones, Heal Yourself With Natural Foods, The Curse Of Louis Pasteur* and *Lick the Sugar Habit Sugar Counter*. She points out that consumption of fructose causes a significant increase in the concentration of uric acid; after ingestion of glucose, no significant change occurs. An increase in uric acid can be an indicator of heart disease.[110] Furthermore, fructose ingestion in humans results in increases in blood lactic acid, especially in patients with preexisting acidotic conditions such as diabetes, postoperative stress or uremia. Extreme elevations cause metabolic acidosis and can result in death.[111]

Fructose is absorbed primarily in the jejunum before metabolism in the liver. Fructose is converted to fatty acids by the liver at a greater rate than is glucose.[112] When consumed in excess of dietary glucose, the liver cannot convert all of the excess fructose in the system and it may be malabsorbed. The portion that escapes conversion may be thrown out in the urine. Diarrhea can be a consequence.[113] A study of 25 patients with functional bowel disease showed that pronounced gastrointestinal distress may be provoked by malabsorption of small amounts of fructose.[114]

Fructose interacts with oral contraceptives and elevates insulin levels in women on "the pill.[115]

In studies with rats, fructose consistently produces higher kidney calcium concentrations than glucose. Fructose generally induces greater urinary concentrations of phosphorus and magnesium and lowered urinary pH compared with glucose.[116]

In humans, fructose feeding leads to mineral losses, especially higher fecal excretions of iron and magnesium, than did subjects fed sucrose. Iron, magnesium, calcium, and

zinc balances tended to be more negative during the fructose-feeding period as compared to balances during the sucrose-feeding period.[117]

There is significant evidence that high sucrose diets may alter intracellular metabolism, which in turn facilitates accelerated aging through oxidative damage. Scientists found that the rats given fructose had more undesirable cross-linking changes in the collagen of their skin than in the other groups. These changes are also thought to be markers for aging. The scientists say that it is the fructose molecule in the sucrose, not the glucose, that plays the larger part.[118]

Because it is metabolized by the liver, fructose does not cause the pancreas to release insulin the way it normally does. Fructose converts to fat more than any other sugar. This may be one of the reasons Americans continue to get fatter. Fructose raises serum triglycerides significantly. As a left-handed sugar, fructose digestion is very low. For complete internal conversion of fructose into glucose and acetates, it must rob ATP energy stores from the liver.[119]

Not only does fructose have more damaging effects in the presence of copper deficiency, fructose also inhibits copper metabolism—another example of the sweeteners double-whammy effect. A deficiency in copper leads to bone fragility, anemia, defects of the connective tissue, arteries, and bone, infertility, heart arrhythmias, high cholesterol levels, heart attacks, and an inability to control blood sugar levels.[120]

Although these studies were not designed to test the effects of fructose on weight gain, the observation of increased body weight associated with fructose ingestion is of interest. One explanation for this observation could be that fructose ingestion did not increase the production of two hormones, insulin and leptin, that have key roles in the long-term regulation of food intake and energy expenditure.[121]

See Appendix VI for a listing of the health effects of fructose.

The magnitude of the deleterious effects of fructose varies depending on such factors as age, sex, baseline glucose, insulin, triglyceride concentrations, the presence of insulin resistance, and the amount of dietary fructose consumed.[122] Some people are more sensitive to fructose. They include hypertensive, hyperinsulinemic, hypertriglyceridemic, non-insulin dependent diabetic people, people with functional bowel disease and postmenopausal women.[123]

According to a recent *Wall Street Journal* article, childhood weight gain in America might be caused in good measure by "the sweetening of America."[124] **When sugar is consumed in high quantities as "liquid candy" (high fructose corn syrup in processed drinks and foods), unused amounts are stored as fat cells. The more carbohydrate that is eaten, the more fat the liver and adipose tissue make from any excess carbohydrate. The end product of much of the carbohydrate that is eaten is fat.** This fat is stored either for the short term or for long term, depending on

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the energy requirements of the body. Instead of burning this energy, sedentary children store more and more of the sugar as fat.[125]

High fructose corn syrup is the primary sweetener used in soft drinks, now readily available to children in school vending machines. The soft drink industry increased US production from 22 to 41 gallons of soft drinks per person a year between 1970 and 1997.

Teenagers and children, the industry's main targets, are among the largest consumers. In the past 10 years, soft drink consumption among children has almost doubled in the United States. Teenage boys now drink, on average, three or more cans of soda per day, and 10 percent drink seven or more cans a day. The average for teenage girls is more than two cans a day, and 10 percent drink more than five cans a day. A typical 20-ounce Coke contains zero fat, zero protein and 27 grams of carbohydrates, usually in the form of high fructose corn syrup.

There are an estimated 20,000 vending machines in schools nationwide, according to the National Automatic Merchandising Association. The USDA collected data on *vending machines in schools and reported that 88 percent of high schools, 61 percent* of middle schools and 14 percent of elementary schools have food or beverage vending machines for student use. Thirty-four percent of high schools and 15 percent of middle schools permit students to use school vending machines at any time, and 6 percent of elementary schools allow students to use vending machines during lunch.

Everyone should avoid over-exposure to fructose, but especially those listed above. One or two pieces of fruit per day is fine, but commercial fruit juices and any products containing high fructose corn syrup are more dangerous than sugar and should be removed from the diet.

Recently, the World Health Organization (WHO) recommended limiting intake of added sugars found in food and drink to no more than 10 percent of daily calories, a step the WHO said could help stop the worldwide rise in obesity that is fueling the growth of such chronic diseases as type 2 diabetes.[126] On the other hand, the Institute of Medicine of the National Academy of Sciences recently provided guidelines that recommended up to 25 percent of one's daily calories as added sugar.[127] The WHO recommendation is far stricter than the Institute of Medicine added sugar limit of 25 percent of calories, the average level found in today's American food intake.

The Foundation concurs with WHO guidelines, with the particular caveat that consumption of refined sugars and syrup be limited. Most of the carbohydrates consumed should be in the form of whole grains, legumes, fresh or frozen fruits and fresh or frozen vegetables.

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PROTEINS

Proteins are the building blocks of the animal kingdom. The human body assembles and utilizes about 50,000 different proteins to form organs, nerves, muscles and flesh. Enzymes—the managers and catalysts of all our biochemical processes—are specialized proteins. So are antibodies.

All proteins are combinations of just 22 amino acids, eight of which are "essential" nutrients for humans, meaning that the human body cannot make them. When the essential amino acids are present in the diet, the body can usually build the other "nonessential" amino acids; however, if just one essential amino acid is low or missing, the body is unable to synthesize the other proteins it needs, even when overall protein intake is high. Of particular importance to the health of the brain and nervous system are the sulphur-containing amino acids—methionine, cysteine and cystine—found most plentifully in eggs and meat. Some individuals cannot manufacture amino acids considered "nonessential," such as taurine and carnitine, but must obtain them from dietary sources, namely red meat.

Protein is essential for normal growth, for the formation of hormones, for the process of blood clotting and for the formation of milk during lactation. Protein helps regulate the acid-alkaline balance of tissues and blood. When protein is lacking in the diet, there is a tendency for the blood and tissues to become either too acid or too alkaline, depending on the acidity or the alkalinity of the foods eaten.

Just as animal fats are our only sources of vitamins A and D and other bodybuilding factors, so also animal protein is our only source of complete protein. *All of the essential amino acids, and many considered "nonessential," are* present in animal products. Sources of protein from the vegetable kingdom contain only incomplete protein; that is, they are low in one or more essential amino acids, even when overall protein content is high. The body must ingest all the essential amino acids in order to use any of them.

The two best sources of protein in the vegetable kingdom are legumes and cereal grains, but all plant foods are low in tryptophan, cystine and threonine. Legumes, such as beans, peanuts and cashews are high in the amino acid lysine but low in methionine. Cereal grains have the opposite profile. In order to obtain the best possible protein combination from vegetable sources, pulses and grains should be eaten together and combined with at least a small amount of animal protein. Most grain-based cuisines instinctively incorporate this principle. For example, animal products plus corn and beans are staple fare in Mexican cuisine, as are chickpeas and whole wheat in the Middle East.

Scientific evidence, honestly evaluated, argues against relying too heavily on grains and legumes as sources of protein or for severely reducing animal products in the diet. Our primitive ancestors subsisted on a diet composed largely of meat and fat, augmented with vegetables, fruit, seeds and nuts. Studies of their remains

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reveal that they had excellent bone structure, heavy musculature and flawless teeth. Agricultural man added milk, grains and legumes to this diet. These foods allowed him to pursue a more comfortable life style than the hunter-gatherer, but at a price. In his studies of isolated "primitive" peoples, Dr. Weston A. Price found that those whose diets consisted largely of grains and legumes, while far healthier than civilized moderns, had, nevertheless, more dental caries than those living primarily on meat and fish. Skulls of prehistoric peoples subsisting almost entirely on vegetable foods have teeth containing caries and abscesses and show evidence of bone problems and tuberculosis as well.[128]

A study by Dr. Emmanuel Cheraskin corroborates Dr. Price's observations. He surveyed 1040 dentists and their wives. Those who had the fewest problems and diseases as measured by the Cornell Medical Index had the most protein in their diets.[129] The claim that high-protein diets cause bone loss is supported neither by scientific research nor by anthropological surveys.[130] However, inadequate protein intake leads to loss of myocardial muscle and may therefore contribute to coronary heart disease.[131] However, protein cannot be adequately utilized without dietary fats. That is why protein and fats occur together in eggs, milk, fish and meats. A high-protein, *low fat diet can cause many problems including too rapid growth and depletion of* vitamin A and vitamin D reserves.[132]

Not only is it difficult to obtain adequate protein on a diet devoid of animal products, but such a diet often leads to deficiencies in many important minerals as well. This is because a largely vegetarian diet lacks the fat-soluble catalysts needed for mineral absorption. Furthermore, phytates in grains block absorption of calcium, iron, zinc, copper and magnesium. Unless grains are properly prepared to neutralize phytates, the body may be unable to assimilate these minerals. Zinc, iron, calcium and other minerals from animal sources are more easily and readily absorbed. We should not underestimate the dangers of deficiencies in these minerals. The effects of calcium and iron deficiency are well known, those of zinc less so. Even a minor zinc deficiency in pregnant animals results in offspring with deformities, such as clubfeet, cleft palates, *domed skulls and fused and missing ribs. In humans, zinc deficiency can cause learning* disabilities and mental retardation. In men, zinc depletion decreases fertility. Man's best source of zinc is animal products, particularly oysters and red meat.

Usable vitamin B_{12} occurs only in animal products. The body stores a supply of vitamin B_{12} that can last from two to five years. When this supply is depleted, B_{12} deficiency diseases result. These include pernicious anemia, impaired eyesight, panic attacks, schizophrenia, hallucinations and nervous disorders, such as weakness, loss of balance and numbness in the hands and feet. Vitamin B_{12} deficiency has been found in breast-fed infants of strict vegetarians.[133] Fermented soy foods and spirulina contain compounds that resemble B_{12}; however, humans do not absorb these forms because they are not picked up by the "intrinsic factor," a specialized protein secreted in the stomach that allows B_{12} to be assimilated. In fact, the plant forms of B_{12} may even create B_{12} deficiencies.[134] (Viability of the intrinsic factor depends on a number of factors including calcium status, pancreatic enzymes and proper pH in the upper

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intestine. The ability to assimilate B_{12} frequently declines with age so that many elderly people suffer from B_{12} deficiency even though they continue to eat animal products.)

Current wisdom dictates that Americans should at least reduce their consumption of red meats and the dark meat of birds because these meats contain more saturated fat than fish or white poultry meat; but even this stricture is ill advised, especially for those who tend to be anemic. Red meat is rich in iron and zinc, both of which play important roles in the body's use of essential fatty acids; and, as we have seen, consumption of saturated fat poses no threat to our health.

A few highly publicized studies have claimed a link between consumption of meat and saturated fats with cancer, especially cancer of the colon.[135] Studies claiming a correlation of animal product consumption with cancer do not stand up to careful scrutiny. In many of these studies, the databases combined saturated fats from animal sources with hydrogenated vegetable oils, known to be carcinogenic.[136] Furthermore, these studies did not include sugar and white flour in their surveys, even though researcher Lopez and others have shown that in industrialized countries high meat consumption and high sugar intake often occur together.[137] Actually, the pathway for colon cancer is well understood. It involves high levels of omega-6 linoleic acid and hydrogenated fats, which in the presence of carcinogens and acted on by certain enzymes in the cells lining the colon lead to tumor formation.[138] This explains why colon cancer is prevalent in some industrialized countries where there are many carcinogens in the diet and where consumption of vegetable oils and sugar is high; but in traditional societies, where sugar and vegetable oils are absent and the food is free of additives, meat-eating is not associated with cancer.

Refined Proteins

We have already seen that processing and refining can devitalize both fats and carbohydrates. The same can be said of proteins. Isolated protein powders made from soy, whey, casein and egg whites are currently popular as basic ingredients in diet beverages and many so-called health food products. **Protein isolates are usually obtained by a high-temperature process that over-denatures the proteins to such an extent that they become virtually useless.**[139] while increasing nitrates and other carcinogens.[140] Protein powders are often consumed as part of a low-fat diet and can thereby lead to depletion of vitamin A and D reserves. Soy protein isolates are high in mineral-blocking phytates, thyroid-depressing phytoestrogens and potent enzyme inhibitors that depress growth and cause cancer.[141]

Diets in which non-natural isolated powdered proteins from soy, eggs or milk are fed to animals or humans cause a negative calcium balance that can lead to osteoporosis. Critics of meat eating have seized on these results to claim that meat causes bone loss. But meat or milk—as opposed to protein powders—fed to human subjects do not cause calcium loss nor do they contribute to osteoporosis.[142] The healthy meat-eating groups studied by Weston Price did not show any evidence whatsoever of osteoporosis.

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In summary, animal products are important sources of bodybuilding elements in the diet. Furthermore, animal fats supply vitamin A and vitamin D and animal protein is rich in minerals, vitamin B_6 and vitamin B_{12}. The traditional groups of people studied by Dr. Price especially valued certain high-vitamin animal products like organ meats, butter, fish eggs and shellfish for growing children and for parents of both sexes during the childbearing years.

We cannot stress too highly that animal protein foods—meat, eggs and milk—always come with fat and this is how we should eat them. Animal fat supplies vitamins A and D needed for the assimilation of protein. Consumption of low fat milk products, egg whites and lean meat can lead to serious deficiencies of these vital fat-soluble nutrients.[143]

The amount of meat you include in your diet depends on your genetic makeup and on hormonal factors. Some people require more meat while others do not produce enough hydrochloric acid in their stomachs to handle large amounts very well. Some researchers claim that our need for protein declines in later years. Requirements for individual essential amino acids vary enormously. For example, dark-skinned people may need more tryptophan, found in eggs and dairy products, as this essential amino acid is used in the production of melanin; deficiencies may lead to insomnia, hyperactivity and other nervous disorders. Some individuals have high requirements for carnitine, a nonessential amino acid found plentifully in lamb or beef, because they have difficulty manufacturing enough of it for proper functioning of the heart.

Our endorsement of animal products must be tempered with this important caveat: The meat, milk and eggs in our supermarkets are highly contaminated and vastly inferior in nutritional quality to those available to our predecessors just a few decades ago. Modern cattle-raising techniques include the use of steroids to make meat tenderer and antibiotics that allow cattle to survive in crowded feedlots. Many cattle supplying meat to the American table have never seen the open range, and calves raised for veal are often confined to crates for the whole of their short lives. Diseased animals routinely pass inspection and find their way into the food supply. Chickens are raised in crowded pens, often under artificial light both night and day, and fed on substandard food. They, too, must be guarded from infection by antibiotics. Their eggs are inferior in nutritional qualities to those of free-range, properly nourished hens.

The kinds of proteins we eat are just as important as the types of fats and carbohydrates consumed. Grass fed beef, free range chickens and eggs, bacon and ham from non-factory farmed raised pigs, and fresh fish that is not factory farmed are to be consumed for their natural nutritional basis.

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EXCITOTOXINS

The last area the Foundations will comment on is that of excitotoxins. While not a macronutrient, excitotoxins play a significant role in the processing of foods consumed by Americans and our resultant levels of obesity. Excitotoxins are substances, usually acidic amino acids, which react with specialized receptors in the brain in such a way as to lead to destruction of certain types of neurons.[144]

Excitotoxins are present in almost all processed foods. In many cases they are being added in disguised forms, such as hydrolyzed vegetable protein, vegetable protein, textured protein, hydrolyzed plant protein, soy protein extract, caseinate, yeast extract, and natural flavoring. Basically, they are used to alter the taste of food.

We will focus on two excitotoxins: monosodium glutamate (MSG) and aspartame. MSG is glutamic acid that has been freed from protein through a manufacturing process what many MSG-sensitive people refer to as processed free glutamic acid and its disguised forms are used to enhance the taste of food. Aspartame and its breakdown-product, aspartic acid, is a non-nutritive artificial sweetener that is used as a substitute for sugar and high fructose corn syrup in diet soft drinks and many diet foods. About 40 percent of aspartame is aspartic acid.

Research has shown that when subtoxic levels of excitotoxins are given to animals in divided doses, they experience full toxicity, i.e. they are synergistic.[145] Also, liquid forms of excitotoxins, as occurring in soups, gravies and diet soft drinks, are more toxic than that added to solid foods because they are more rapidly absorbed and reach higher blood levels.[146]

Excitotoxins have been identified in playing a critical role in the development of a number of neurological disorders including migraines, seizures, infections, abnormal neural development, certain endocrine disorders, neuropsychiatric disorders, learning disorders in children, AIDS dementia, episodic violence, lyme borreliosis, hepatic encephalopathy, specific types of obesity, and especially the neurodegenerative diseases, such as ALS, Parkinson's disease, Alzheimer's disease, Huntington's disease, and olivopontocerebellar degeneration.[147]

Of particular concern are the toxic effects of excitotoxins on the developing brain. Research has established that the immature brain is four times more sensitive to the toxic effects of the excitatory amino acids as is the mature brain. This means that excitotoxic injury is of special concern from the fetal stage to adolescence. There is evidence that the placenta concentrates several of these toxic amino acids on the fetal side of the placenta. Consumption of aspartame and MSG containing products by pregnant women during this critical period of brain formation is of special concern and should be discouraged. Many of the effects, such as endocrine dysfunction and complex learning, are subtle and may not appear until the child is older. Other hypothalamic syndromes associated with early excitotoxic lesions include immune alterations and violence dyscontrol.[148]

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Monosodium Glutamate (MSG)

Glutamate is one of the more commonly known excitotoxins. Monosodium Glutamate (MSG) is the sodium salt of glutamate. This amino acid is a normal neurotransmitter in the brain. In fact, it is the most commonly used neurotransmitter by the brain. This is because, glutamate, as a neurotransmitter, exists in the extracellular fluid only in very, very small concentrations. When the concentration of this transmitter rises above this level the neurons begin to fire abnormally. At higher concentrations, the cells undergo a specialized process of delayed cell death known as excitotoxicity, that is, they are excited to death.

MSG is manufactured through a process of protein hydrolysis. When a product is 99% pure MSG, the product is called "monosodium glutamate" by the FDA and must be labeled as such. However, when a hydrolyzed protein contains less than 99% MSG, the FDA does not require that the MSG be identified. "Autolyzed yeast," "hydrolyzed soy protein," and "sodium caseinate," are examples of names given to hydrolyzed proteins on food labels. Under FDA regulation, hydrolyzed protein products may be used as ingredients in other products without mention of the original hydrolyzed protein product. For example, "hydrolyzed soy protein," when used in "flavoring(s)," "natural flavoring(s)," "natural flavor(s)," and products called broth, bouillon, or natural chicken flavoring, etc., does not have to be mentioned on product labels when the food processor claims that the hydrolyzed protein is being used for purposes other than flavoring.[149]

See Appendix VII for a list of ingredients that contain enough MSG to serve as common MSG-reaction Triggers.

MSG was not used in our country to any extent until the late 1940s, and not used widely until the 1960s, when the Ajinomoto Company introduced MSG made by bacterial fermentation. (Ajinomoto Company is the world's largest producer of the food ingredient monosodium glutamate.) Today, most processed foods contain MSG and it is even found in personal care items and pharmaceuticals.

MSG is found in most soups, salad dressings, and processed meats; in some crackers, bread, canned tuna fish, most frozen entrees, ice cream, and frozen yogurt. It is often used in low fat foods to make up for the flavor lost when fat is reduced or eliminated.[150] More than 30 percent of the U.S. population is estimated to suffer adverse reactions to MSG in an ordinary diet.[151]

In 1968, John W. Olney, M.D., a respected researcher at Washington University Medical School, St. Louis, Missouri, and member of the National Academy of Science, replicated a 1957 study by Lucas and Newhouse[152] in which the administration of MSG had resulted in retinal damage in mice. Olney observed that the mice fed MSG became grotesquely obese. Dr. Olney decided to sacrifice some of the mice and found lesions in the hypothalamus portion of the brain, the portion of the brain that is ". . . prominently involved in the functions of the autonomic (visceral motor) nervous system and, through

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its vascular link with the anterior lobe of the hypophysis, in endocrine mechanisms; it also appears to play a role in neural mechanisms underlying moods and motivational states."[153]

Dr. Olney published a paper on his findings in 1969, in which he described the hypothalamic lesions, stunted skeletal development, and obesity in maturing mice which had been given the food ingredient "monosodium glutamate" as neonates. Olney also commented on observed pathological changes found in several brain regions associated with endocrine function in maturing mice.[154]

Since 1969, many scientists have confirmed Dr. Olney's findings of damage to the hypothalamus from MSG with resulting obesity. The National Library of Medicine website, www.pubmed.gov, cites 151 studies listed in addition to Dr. Olney's study. More research has been done on the effects of MSG than aspartic acid on the hypothalamus[155,156]; however, neuroscientists have found in animal studies that glutamic acid and aspartic acid load on the same receptors in the brain, cause identical brain lesions and neuroendocrine disorders, and act in an additive fashion.[157]

Research indicating that MSG causes damage to the hypothalamus has been carried out mostly on small laboratory animals, primarily the mouse and the rat. In the 1960s, a few studies looked at the effects of MSG on primates. The findings were the same for rhesus monkeys as they were for rodents.[158,159] Although research designed to produce brain lesions cannot be carried out on humans, neuroscientists have determined that humans are five times more sensitive to MSG than the mouse and 20 times more sensitive to MSG than the monkey, based on blood plasma levels of glutamate following an oral dose of 150 mg/kg of glutamic acid.[160] Furthermore, individual variability in plasma response to glutamate loading is more extreme in humans than in the mouse or monkey.[161]

Scientists have known that MSG and aspartic acid cause lesions in the hypothalamus resulting in obesity since 1969, but only recently has a possible explanation for the mechanism by which this occurs come to light. In 1994, researchers discovered the appetite-suppressing hormone leptin. As described in many articles, leptin regulates, among other things, energy, control of appetite and body weight. Leptin acts by altering neuropeptide circuits in the hypothalamus.[162,163,164,165,166,167]

While there is abundant literature demonstrating that MSG and aspartic acid cause hypothalamic lesions which, in turn, can cause gross obesity, research has yet to be carried out that examines a possible relationship between the hypothalamic damage caused by MSG and/or aspartame, and the leptin abnormalities found in obese individuals. Research is required in this area.

The glutamate industry would like us to believe that MSG is not a problem for humans because the human brain is protected from MSG by the blood-brain barrier. However, we do not believe this is true. The blood-brain barrier is not fully developed in newborns, and researchers do not know at which age it becomes fully developed. Some evidence

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indicates that the blood-brain barrier is not fully developed in some children until puberty.[168]

It is definitely not fully developed in any fetus. Furthermore, throughout life, certain regions of the brain, known as the circumventricular organs, lack a blood-brain barrier[169,170,171], and the blood-brain barrier can be damaged from high fever, stroke, trauma to the head, seizures, repeated ingestion of MSG, and the normal process of aging.[172,173,174]

The developing fetus is at particular risk since the placental barrier is not impervious to MSG[175,176,177]; and we can assume the same is true for the aspartic acid contained in aspartame. Since most of the processed foods we eat contain MSG, as do many personal care items, supplements and pharmaceuticals, it is almost impossible for an expectant mother to avoid it. She may also be using aspartame in diet soda or as a sweetener in coffee and/or ingesting free glutamic acid or free aspartic acid as a chelating agent in the minerals included in her multi-vitamin preparation.

Following birth, an infant is exposed to MSG in most, if not all, of the vaccines it is given, and in most cases is also exposed to free aspartic acid in vaccines.[178] The effect of the glutamic acid in vaccines is intensified by any mercury that is also present.[179] (Until recently, most infant vaccines contained the preservative thimerosol, a mercury-based compound.)

All infant formulas contain some free glutamic acid and free aspartic acid. An infant on a hypoallergenic soy-based formula will ingest more excitotoxic amino acids (glutamic acid, aspartic acid, and L-cysteine) per day than is contained in any serving of food that is typically seen on grocery store shelves.[180] (We understand hypoallergenic soy formulas are now being used by 25 percent of mothers because they have been led to believe that soy formulas are better for their babies than are milk-based formulas, even if their children are not lactose intolerant.) If an infant is breast fed, it appears likely that the MSG and/or aspartame ingested by the mother will pass into her milk. If the infant becomes ill, he may receive a medication sweetened with aspartame. As soon as the infant begins to eat processed foods, the infant will be ingesting free glutamic acid, and, in many cases, free aspartic acid.

The glutamate industry claims that glutamic acid and aspartic acid are natural components of protein and, therefore, cannot be harmful. What they fail to mention is that when glutamic acid and aspartic acid are freed from protein through a manufacturing process, they will invariably be accompanied by contaminants. If the manufacturing process used to free amino acids from protein is acid hydrolysis, carcinogenic propanols will be included as contaminants.[181] In a speech before The Celiac Sprue Association in 2000, an FDA researcher reported that in freeing L-tryptophan from protein, certain contaminants are produced, and it is now believed that those who died or became ill from L-tryptophan in the late 1980s were people who were intolerant to those contaminants. (The FDA has suppressed that finding.)[182]

In July, 1992, the Federation of American Societies for Experimental Biology (FASEB) issued its findings on an FDA-funded study entitled "Safety of Amino Acids Used as Dietary Supplements."[183] In the section on glutamic acid (the reactive component of the food ingredient "monosodium glutamate"), the report concludes, in part, "The continuing controversy over the potential effects of glutamate on growth and development of neonatal animal models suggests that it is prudent to avoid the use of dietary supplements of L-glutamic acid by pregnant women, infants and children. The existence of evidence of potential endocrine responses; i.e., elevated cortisol and prolactin, . . . *would also suggest a neuroendocrine link and that supplemental L-glutamic acid should* be avoided by women of child bearing age and individuals with affective disorders."

The FDA appears to have suppressed this FASEB report. When asked how the FDA can allow MSG to be used in food, FDA officials stated that one cannot compare the free glutamic acid in supplements to the free glutamic acid in food. Of course, this position is completely untenable since food products contain far more free glutamic acid than supplements.

Following issuance of the FASEB report on supplements, the FDA contracted with FASEB to conduct a study on the safety of MSG in food. In July, 1995, FASEB published its report entitled "Analysis of Adverse Reactions to Monosodium Glutamate (MSG)."[184] Most people, and the media, received a 20 page "Executive Summary," *primarily made up of questions developed by the FDA and the answers to those* questions. The carefully crafted summary left readers with the impression that MSG was essentially safe.

What is not generally known about the FASEB report on the safety of MSG in food is that the original draft final report was issued to the FDA in September, 1994 and leaked to the glutamate industry. The glutamate industry was not happy with FASEB's report and the FDA rejected it. The FDA asked FASB to "clarify" the report, leading to the final report, dated July, 1995. A reading of the entire July, 1995, FASEB report (over 350 pages long rather than the 20 pages making up the Executive Summary), will not give the reader the impression that MSG is safe.

Aspartame

The substances which will be discussed here are often referred to on product labels by many (seemingly) interchangeable terms: artificial/synthetic sweeteners, sugar alternatives, alternative sweeteners, non-nutritive sweeteners, non-caloric/low-cal/low-carb sweeteners, diabetic-safe sweeteners, etc. Many of these terms seem to be used as synonyms.[185]

According to the American Dietetic Association (ADA): "Although sweeteners can be grouped a number of different ways, the grouping "nutritive" and "non-nutritive" *acknowledges a difference in the amount of energy provided by sweeteners. Nutritive* sweeteners include sugar sweeteners (e.g., refined sugars, high fructose corn syrup, crystalline fructose, glucose. . . concentrated fruit juice) and. . . sugar alcohols (e.g.,

sorbitol, mannitol, xylitol, isomalt, and hydrogenated starch hydrolysates). Non-nutritive sweeteners (e.g., saccharin, aspartame, acesulfame-K. . . sucralose [and neotame]) offer no energy, and, as they sweeten with little volume, can also be referred to as high-intensity sweeteners. Both sugar alcohols and non-nutritive sweeteners can replace sugar sweeteners and are therefore termed macronutrient substitutes, sugar substitutes, sugar replacers, or alternative sweeteners.

"Some sweeteners are considered Generally Recognized As Safe (GRAS) ingredients and others are considered food additives. . . . The safety limit of food additives. . . (is) expressed as the acceptable daily intake (ADI), that is, the estimated amount per kilogram body weight that a person can safely consume every day over a lifetime without risk. . . ."[186]

The Food and Drug Administration (FDA) has approved five non-nutritive sweeteners: aspartame, saccharin, acesulfame K, sucralose and neotame.[187,188] The most widely used non-nutritive sweetener is aspartame, scientifically known as 1-aspartyl 1-phenylalanine methyl ester.[189] It was discovered by accident in 1965 by Mr. James Schlatter, a scientist who was working on new drugs to treat ulcers, when he licked his fingers to pick up a piece of paper and accidentally tasted the intense sweetness of the compound he had created.[190]

Aspartame is 180 times sweeter than sucrose (common table sugar).[191] According to the ADA: "Demand for aspartame in the United States rose from 8.4 million pounds in 1986 to 17.5 million pounds in 1992, a figure that represents more than 80 percent of the world demand. Although soft drinks account for more than 70 percent of aspartame consumption, this sweetener is added to more than 6,000 foods, personal care products, and pharmaceuticals.

Aspartame is approved for use in more than 100 nations.[192] It has been sold around the world under various brand names including NutraSweet, Equal, Spoonfuls, Canderel, Bienvia, NatraSweet and Miwon. Its widespread usage has left an extensive trail of complaints and documentation of its negative side effects. Consequently, there is a great deal to be said on the subject of aspartame.

Aspartame, a product of pharmaceutical company G.D. Searle & Company, was originally approved for dry goods on July 26, 1974, but objections filed by scientists and attorneys in August 1974 as well as investigations of G.D. Searle's research practices caused the FDA to put approval of aspartame on hold on December 5, 1974. Searle owned the original patent on aspartame and did the original laboratory studies on its safety. These studies turned out very badly and remain as some of the most damning evidence against aspartame's safety.[193] Two of Searle's own scientists, concerned about the safety of the new product, filed a formal objection to try to keep aspartame from coming to the market.[194] A team from the FDA conducted its own study of Searle's data and on the corpses of aspartame-poisoned mice, and issued a scathing document called the Bressler Report.[195]

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Aspartame was formally approved by the FDA for dry goods in 1981 and for carbonated beverages in 1983 under the Reagan Administration. In 1985, Monsanto purchased G.D. Searle and made Searle Pharmaceuticals and The NutraSweet Company separate subsidiaries.

Aspartame is a neurotoxic substance that has been associated with numerous health problems including dizziness, visual impairment, severe muscle aches, numbing of extremities, pancreatitis, high blood pressure, retinal hemorrhaging, seizures and depression. It is suspected of causing birth defects and chemical disruptions in the brain.[196]

Researchers at Utah State University found that even at low levels aspartame induces adverse changes in the pituitary glands of mice[197]. The pituitary gland is the master gland upon which the proper function of all biochemical processes depend.

When aspartame is digested it breaks down into the amino acids phenylalanine and aspartic acid, plus methanol. Methanol, or wood alcohol, is a known poison. Methanol is also found in fruit juices, and our regulatory agencies have seized upon this fact to assure us that the methanol by-product of aspartame is not harmful. They fail to point out that the methanol content of a diet soft drink is 15 to 100 times higher than that of fruit juices.[198]

The Environmental Protection Agency (EPA) defines the "safe consumption level" of methanol at 7.8 milligrams per day. One liter of a beverage sweetened with aspartame may contain as much as 56 milligrams of methanol.[199]

Other sources also link aspartame consumption with Parkinson 's disease, Alzheimer 's disease and the Gulf War Syndrome experienced by U.S. soldiers after serving in Iraq during Operation: Desert Storm.[200]

According to Dr. Christine Lydon, an aspartame researcher: "Aspartame's breakdown products, or metabolites, are even scarier than its components. Phenylalanine decomposes into diketopiperazine (DKP) a known carcinogen, when exposed to warm temperatures or prolonged storage. Even if products are consistently kept at cooler temperatures we are not safe. At cold temperatures, methanol will spontaneously give rise to a colorless toxin known as formaldehyde. Independent studies have shown formaldehyde formation, resulting from aspartame ingestion, to be extremely common. It accumulates within the cells, and reacts with cellular proteins such as enzymes and DNA. This cumulative reaction could spell grave consequences for those who consume aspartame-laden diet drinks and foods on a daily basis."[201]

Supporters of aspartame claim that the levels of methanol are not high enough to be worrisome and that phenylalanine and aspartic acid are of only limited concern. But there is no argument about the fact that phenylalanine, the largest component of aspartame by weight, is a danger to people who have a hereditary condition called phenylketonuria (PKU). These people must monitor or eliminate their intake of

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phenylalanine, which also occurs naturally in certain foods. The FDA recommends that pregnant and lactating women, people with advanced liver disease and phenylketonurics avoid products containing aspartame due to concern over metabolizing phenylalanine.

The FDA also admits that aspartic acid has the potential to cause brain damage at very high doses, but they assure us that "under normal intake levels, the brain's mechanism for controlling aspartic acid levels ensures no adverse effects."[202]

However, according to Dr. Lydon, "Phenylalanine and aspartic acid are amino acids that are normally supplied by the foods we eat; however, they can only be considered natural and harmless when consumed in combination with other amino acids. On their own, they enter the central nervous system in abnormally high concentrations, causing aberrant neuronal firing and potential cell death. The neurotoxic effects of these amino acids, when consumed as isolates, can be linked to headaches, mental confusion, balance problems and possibly seizures."[203]

While aspartame has been the subject of hundreds of FDA-approved studies, they clearly have not laid to rest the controversy surrounding its safety. Any adverse reaction to a food item that is regulated under the FDA's authority is supposed to be reported back to their Adverse Reaction Monitoring System (ARMS). As of 1995, over 75 percent of the adverse reactions reported to the ARMS were due to aspartame.[204] A 1995 report from the U.S, Department of Health and Human Services entitled "Symptoms Attributed to Aspartame in Complaints Submitted to the FDA" (opened to the public through the Freedom of Information Act) lists 92 separate categories of symptoms, including the frequency of each reported claim.[205]

The Material Safety Data Sheet on aspartame (CAS# 22839-47-0) says that to work with the aspartame, one should wear chemical goggles, protective gloves to prevent skin exposure, a chemical apron and a NIOS/MSHA approved air purifying dust or mist respirator.[206]

Clearly, excitotoxins are og major concern to our health and well-being. They are present in one form or another in all processed foods. While there is clear controversy of the health efficacy of MSG and aspartame, sufficient research exists pointing to caution when consuming these food additives.

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CONCLUSIONS

We, as a nation, have an immense opportunity to reverse the effects of the prevailing bubble on our health and well being. Obesity and overweight and concomitant diseases can be alleviated, but it will take a radical shifting of our current thinking on nutrition and food.

Over the long term, low-fat diets have been shown to be disadvantageous for preventing the diseases they have been recommended for. Most people are at risk for lowered intakes of the important fat-soluble vitamins and other fat-soluble nutrients when they consume low-fat diets for any length of time. So it would seem that the fat content of natural fats that our ancestors used, with an average of 35-40 percent of energy as fat, makes sense.

For those who are prone to hypoglycemia, seizures or who are recovering from an operation or illness, the percent of energy from fat should be higher. Growing infants and children also need a higher proportion of fat in the diet. Whatever level of fat works for an individual, it should be a mixture of natural fats that were common in the diets 60 and more years ago. Americans today consume in excess refined vegetable oils and *trans* fatty acids from partially hydrogenated vegetable oils.

The consumption of processed foods containing refined and partially hydrogenated vegetable oils, highly sugared food, especially those foods containing high fructose corn syrup, and excitotoxins such as MSG and aspartame should be limited as much as possible as well as highly processed protein sources. Naturally occurring unprocessed fruits, vegetables, whole grains and legumes with non-factory farmed animal and fish protein sources are recommended for longevity and well being. Beneficial fats include the primarily saturated butter and other animal fats, coconut and palm oils; monounsaturated fats such as olive oil and peanut oil; and the polyunsaturated omega-3 essential fatty acid from flaxseed oil and fish.

***In conclusion, the Weston A. Price Foundation urges the U.S. Department* Agriculture to abandon the current Food Pyramid concept. They should return to a plan that stresses high quality foods from four basic groups: animal foods, grains and legumes, fruits and vegetables, and beneficial oils and fats.**

We believe that by following these recommendations to the dietary guidelines, overweight and obesity, as well as many other health problems, will dramatically decrease in the United States.

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Appendix I

COMPOSITION OF DIFFERENT FATS

It is worthwhile examining the composition of vegetable oils and other animal fats in order to determine their usefulness and appropriateness in food preparation:

Duck and Goose Fat are semisolid at room temperature, containing about 35% saturated fat, 52% monounsaturated fat (including small amounts of antimicrobial palmitoleic acid) and about 13% polyunsaturated fat. The proportion of omega-6 to omega-3 fatty acids depends on what the birds have eaten. Duck and goose fat are quite stable and are highly prized in Europe for frying potatoes.

Chicken Fat is about 31% saturated, 49% monounsaturated (including moderate amounts of antimicrobial palmitoleic acid) and 20% polyunsaturated, most of which is omega-6 linoleic acid, although the amount of omega-3 can be raised by feeding chickens flax or fish meal, or allowing them to range free and eat insects. Although widely used for frying in kosher kitchens, it is inferior to duck and goose fat, which were traditionally preferred to chicken fat in Jewish cooking.

Lard or pork fat is about 40% saturated, 48% monounsaturated (including small amounts of antimicrobial palmitoleic acid) and 12% polyunsaturated. Like the fat of birds, the amount of omega-6 and omega-3 fatty acids will vary in lard according to what has been fed to the pigs. In the tropics, lard may also be a source of lauric acid if the pigs have eaten coconuts. Like duck and goose fat, lard is stable and a preferred fat for frying. It was widely used in America at the turn of the 20th century. It is a good source of vitamin D, especially in third-world countries where other animal foods are likely to be expensive. Some researchers believe that pork products should be avoided because they may contribute to cancer. Others suggest that only pork meat presents a problem and that pig fat in the form of lard is safe and healthy.

Beef and Mutton Tallows are 50-55% saturated, about 40% monounsaturated and contain small amounts of the polyunsaturates, usually less than 3%. Suet, which is the fat from the cavity of the animal, is 70-80% saturated. Suet and tallow are very stable fats and can be used for frying. Traditional cultures valued these fats for their health benefits. They are a good source of antimicrobial palmitoleic acid.

Olive Oil contains 75% oleic acid, the stable monounsaturated fat, along with 13% saturated fat, 10% omega-6 linoleic acid and 2% omega-3 linolenic acid. The high percentage of oleic acid makes olive oil ideal for salads and for cooking at moderate temperatures. Extra virgin olive oil is also rich in antioxidants. It should be cloudy, indicating that it has not been filtered, and have a golden yellow color, indicating that it is made from fully ripened olives. Olive oil has withstood the test of time; it is the safest vegetable oil you can use, but do not overdo. The longer chain fatty acids found in olive oil are more likely to contribute to the buildup of body fat than the short- and medium-chain fatty acids found in butter, coconut oil or palm kernel oil.

Peanut Oil contains 48% oleic acid, 18% saturated fat and 34% omega-6 linoleic acid. Like olive oil, peanut oil is relatively stable and, therefore, appropriate for stir-frys on occasion. But the high percentage of omega-6 presents a potential danger, so use of peanut oil should be strictly limited.

Sesame Oil contains 42% oleic acid, 15% saturated fat, and 43% omega-6 linoleic acid. Sesame oil is similar in composition to peanut oil. It can be used for frying because it contains unique antioxidants that are not destroyed by heat. However, the high percentage of omega-6 militates against exclusive use.

Safflower, Corn, Sunflower, Soybean and Cottonseed Oils all contain over 50% omega-6 and, except for soybean oil, only minimal amounts of omega-3. Safflower oil contains almost 80% omega-6. Researchers are just beginning to discover the dangers of excess omega-6 oils in the diet, whether rancid or not. Use of these oils should be strictly limited. They should never be consumed after they have been heated, as in cooking, frying or baking. High oleic safflower and sunflower oils, produced from hybrid plants, have a composition similar to olive oil, namely, high amounts of oleic acid and only small amounts

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of polyunsaturated fatty acids and, thus, are more stable than traditional varieties. However, it is difficult to find truly cold-pressed versions of these oils.

Canola Oil contains 5% saturated fat, 57% oleic acid, 23% omega-6 and 10%-15% omega-3. The newest oil on the market, canola oil was developed from the rapeseed, a member of the mustard family. *Rapeseed is unsuited to human consumption because it contains a very-long-chain fatty acid called* erucic acid, which under some circumstances is associated with fibrotic heart lesions. Canola oil was bred to contain little if any erucic acid and has drawn the attention of nutritionists because of its high oleic acid content. But there are some indications that canola oil presents dangers of its own. It has a high sulphur content and goes rancid easily. Baked goods made with canola oil develop mold very quickly. During the deodorizing process, the omega-3 fatty acids of processed canola oil are transformed into *trans* fatty acids, similar to those in margarine and possibly more dangerous.[1] A recent study indicates that "heart healthy" canola oil actually creates a deficiency of vitamin E, a vitamin required for a healthy cardiovascular system.[2] Other studies indicate that even low-erucic-acid canola oil causes heart lesions, particularly when the diet is low in saturated fat.[3]

Flax Seed Oil contains 9% saturated fatty acids, 18% oleic acid, 16% omega-6 and 57% omega-3. With its extremely high omega-3 content, flax seed oil provides a remedy for the omega-6/omega-3 imbalance so prevalent in America today. Not surprisingly, Scandinavian folklore values flax seed oil as a health food. New extraction and bottling methods have minimized rancidity problems. It should always be kept refrigerated, never heated, and consumed in *small* amounts in salad dressings and spreads.

Tropical Oils are more saturated than other vegetable oils. Palm oil is about 50% saturated, with 41% oleic acid and about 9% omega-6 linoleic acid. Coconut oil is 92% saturated with over two-thirds of the saturated fat in the form of medium-chain fatty acids (often called medium-chain triglycerides). Of particular interest is lauric acid, found in large quantities in both coconut oil and in mother's milk. This fatty acid has strong antifungal and antimicrobial properties. Coconut oil protects tropical populations from bacteria and fungus so prevalent in their food supply; as third-world nations in tropical areas have switched to polyunsaturated vegetable oils, the incidence of intestinal disorders and immune deficiency diseases has increased dramatically. Because coconut oil contains lauric acid, it is often used in baby formulas. Palm kernel oil, used primarily in candy coatings, also contains high levels of lauric acid. These oils are extremely stable and can be kept at room temperature for many months without becoming rancid. Highly saturated tropical oils do not contribute to heart disease but have nourished healthy populations for millennia.[4] Red palm oil has a strong taste that most will find disagreeable—although it is used extensively throughout Africa—but clarified palm oil, which is tasteless and white in color, was formerly used as shortening and in the production of commercial French fries, while coconut oil was used in cookies, crackers and pastries. The saturated fat scare has forced manufacturers to abandon these safe and healthy oils in favor of hydrogenated soybean, corn, canola and cottonseed oils.

For a more complete review of the various fats and oils, please refer to Know Your Fats: The Complete Primer for Understanding the Nutrition of Fats, Oils, and Cholesterol by Mary Enig, PhD, Bethesda Press, 2000, pp. 113-152.

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Appendix II

SATURATED FATS ARE BENEFICIAL, NOT HARMFUL

- Saturated fats (or, more properly, saturated fatty acids) occur in large amounts in animal fats such as butter, lard (pig fat) and beef tallow, and in tropical oils such as coconut oil and palm oil. Fats containing high levels of saturated fatty acids tend to be solid at room temperature.

- Saturated fatty acids are said to cause cancer, heart disease and obesity. Yet these diseases were rare at the turn of the century when consumption of saturated fats was much higher than it is today. The likely culprits for these conditions are polyunsaturated fatty acids and *trans* fats, which came into widespread use after WWII.[1]

- As saturated fats are stable, they do not become rancid easily, do not call upon the body's reserves of antioxidants, do not initiate cancer and do not irritate the artery walls.

- Saturated fats actually play many important roles in the body chemistry. Because they are needed in large amounts, the body makes the saturated fats it needs out of carbohydrates when they are not supplied in sufficient amounts in the diet.[2]

- Vitamins A and D, which are vital for proper growth and for protein and mineral assimilation, are found only in mostly saturated animal fats.

- Saturated fats enhance the immune system, thereby protecting us against infection and cancer.[3]

- Saturated fats help the body lay down calcium in the bones and help prevent osteoporosis.[4]

- Saturated fats provide energy and structural integrity to the cells.[5] At least 50 percent of many, if not most, of the cell membrane must be saturated fat for the cells to work properly.

- Saturated fats protect the liver from alcohol, drugs, pesticides and other poisons.[6]

- Saturated fats enhance the body's use of essential fatty acids, which the body needs in small amounts and obtains from whole foods.[7]

- Stearic acid, found in beef tallow and butter, has cholesterol-lowering properties and is a preferred food for the heart.[8]

- Saturated fats are needed for the kidneys to work properly.[9]

- The lung surfactants are composed of saturated fatty acids.[10] The lungs cannot work without adequate amounts of saturated fats.

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Appendix III

BENEFITS OF CHOLESTEROL

- Along with saturated fats, cholesterol in the cell membrane gives our cells necessary stiffness and stability. When the diet contains an excess of polyunsaturated fatty acids, these replace saturated fatty acids in the cell membrane, so that the cell walls actually become flabby. When this happens, cholesterol from the blood is "driven" into the tissues to give them structural integrity. This is why serum cholesterol levels may go down temporarily when saturated fats are replaced with polyunsaturated oils in the diet.[1]

- Cholesterol acts as a precursor to vital corticosteroids, hormones that help us deal with stress and protect the body against heart disease and cancer; and to the sex hormones like androgen, testosterone, estrogen and progesterone.

- Cholesterol is a precursor to vitamin D, a very important fat-soluble vitamin needed for healthy bones and nervous system, proper growth, mineral metabolism, muscle tone, insulin production, reproduction and immune system function.

- The bile salts are made from cholesterol. Bile is vital for digestion and assimilation of fats in the diet.

- Research shows that cholesterol acts as an antioxidant.[2] This is the likely explanation for the fact that cholesterol levels go up with age. As an antioxidant, cholesterol protects us against free radical damage that leads to heart disease and cancer.

- Cholesterol is needed for proper function of serotonin receptors in the brain.[3] Serotonin is the body's natural "feel-good" chemical. Low cholesterol levels have been linked to aggressive and violent behavior, depression and suicidal tendencies.

- Mother's milk is especially rich in cholesterol and contains a special enzyme that helps the baby utilize this nutrient. Babies and children need cholesterol-rich foods throughout their growing years to ensure proper development of the brain and nervous system.

- Dietary cholesterol plays an important role in maintaining the health of the intestinal wall.[4] This is why low-cholesterol vegetarian diets can lead to leaky gut syndrome and other intestinal disorders.

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Appendix IV

MODERN METHODS OF PROCESSING FATS

It is important to understand that, of all substances ingested by the body, it is polyunsaturated oils that are most easily rendered dangerous by food processing, especially unstable omega-3 linolenic acid. Consider the following processes inflicted upon naturally occurring fatty acids before they appear on our tables:

Extraction: Oils naturally occurring in fruits, nuts and seeds must first be extracted. In the old days slow-moving stone presses achieved this extraction. But oils processed in large factories are obtained by crushing the oil-bearing seeds and heating them to 230 degrees. The oil is then squeezed out at pressures from 10 to 20 tons per inch, thereby generating more heat. During this process the oils are exposed to damaging light and oxygen. In order to extract the last 10% or so of the oil from crushed seeds, processors treat the pulp with one of a number of solvents—usually hexane. The solvent is then boiled off, although up to 100 parts per million may remain in the oil. Such solvents, themselves toxic, also retain the toxic pesticides adhering to seeds and grains before processing begins.

High-temperature processing causes the weak carbon bonds of unsaturated fatty acids, especially omega 3 linolenic acid, to break apart, thereby creating dangerous free radicals. In addition, antioxidants, such as fat-soluble vitamin E, which protect the body from the ravages of free radicals, are neutralized or destroyed by high temperatures and pressures. BHT and BHA, both suspected of causing cancer and brain damage, are often added to these oils to replace vitamin E and other natural preservatives destroyed by heat.

There is a safe modern technique for extraction that drills into the seeds and extracts the oil and its precious cargo of antioxidants under low temperatures, with minimal exposure to light and oxygen. These expeller-expressed, unrefined oils will remain fresh for a long time if stored in the refrigerator in dark bottles. Crushing olives between stone or steel rollers produces extra virgin olive oil. This process is a gentle one that preserves the integrity of the fatty acids and the numerous natural preservatives in olive oil. If olive oil is packaged in opaque containers, it will retain its freshness and store of antioxidants for many years.

Hydrogenation: This is the process that turns polyunsaturates, normally liquid at room temperature, into fats that are solid at room temperature—margarine and shortening. A French chemist named Sabatier first discovered the technology by which liquid vegetable oils could be hardened to make margarine. He found that a nickel catalyst would cause the hydrogenation—the addition of hydrogen to unsaturated bonds to make them saturated—of ethylene gas to ethane. Subsequently the British chemist Norman developed the first application of hydrogenation to food oils and took out a patent. In 1909, Procter & Gamble acquired the U.S. rights to the British patent that made liquid vegetable oils solid at room temperature. The process was used on both cottonseed oil and lard to give "better physical properties"—to create shortenings that did not melt as easily on hot days.

To produce hydrogenated oils, manufacturers begin with the cheapest oils—soy, corn, cottonseed or canola, already rancid from the extraction process—and mix them with tiny metal particles—usually nickel oxide. The oil with its nickel catalyst is then subjected to hydrogen gas in a high-pressure, high-temperature reactor. Next, soap-like emulsifiers and starch are squeezed into the mixture to give it a better consistency; the oil is yet again subjected to high temperatures when it is steam-cleaned. This removes its unpleasant odor. Margarine's natural color, an unappetizing grey, is removed by bleach. Dyes and strong flavors must then be added to make it resemble butter. Finally, the mixture is compressed and packaged in blocks or tubs and sold as a health food.

Partially hydrogenated margarines and shortenings are even worse for you than the highly refined vegetable oils from which they are made because of chemical changes that occur during the hydrogenation process. Under high temperatures, the nickel catalyst causes the hydrogen atoms to

change position on the fatty acid chain. Before hydrogenation, pairs of hydrogen atoms occur together on the chain, causing the chain to bend slightly and creating a concentration of electrons at the site of the double bond. This is called the *cis* formation, the configuration most commonly found in nature. With hydrogenation, one hydrogen atom of the pair is moved to the other side so that the molecule straightens. This is called the *trans* formation, rarely found in nature. Most of these man-made *trans* fats are toxic to the body, but unfortunately your digestive system does not recognize them as such. Instead of being eliminated, *trans* fats are incorporated into cell membranes as if they were cis fats—your cells actually become partially hydrogenated. Once in place, *trans* fatty acids with their misplaced hydrogen atoms wreak havoc in cell metabolism because chemical reactions can only take place when electrons in the cell membranes are in certain arrangements or patterns, which the hydrogenation process has disturbed.

In the 1940's, researchers found a strong correlation between cancer and the consumption of fat—the fats used were hydrogenated fats although the results were presented as though the culprit were saturated fats.[1] In fact, until recently saturated fats were usually lumped together with *trans* fats in the various U.S. data bases that researchers use to correlate dietary trends with disease conditions.[2] Thus, natural saturated fats were tarred with the black brush of unnatural hydrogenated vegetable oils.

Altered partially hydrogenated fats made from vegetable oils actually block utilization of essential fatty acids, causing many deleterious effects including sexual dysfunction, increased blood cholesterol and paralysis of the immune system.[3] Consumption of hydrogenated fats is associated with a host of other serious diseases, not only cancer but also atherosclerosis, diabetes, obesity, immune system dysfunction, low-birth-weight babies, birth defects, decreased visual acuity, sterility, difficulty in lactation and problems with bones and tendons.[4] Yet hydrogenated fats continue to be promoted as health foods. The popularity of partially hydrogenated margarine over butter represents a triumph of advertising over common sense. The best defense is to avoid all products with partially hydrogenated vegetable oils.

Homogenization: This is the process whereby the fat particles of cream are strained through tiny pores under great pressure. The resulting fat particles are so small that they stay in suspension rather than rise to the top of the milk. This makes the fat and cholesterol more susceptible to rancidity and oxidation, and some research indicates that homogenized fats may contribute to heart disease.[5]

[Table extracted from Enig, Mary, The Skinny on Fats, Weston A. Price Foundation, http://www.westonaprice.org/know_your_fats/skinny.html, pp. 12-14]

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Appendix V

ADVERSE EFFECTS OF EXCESS POLYUNSATURATED OILS

- *Polyunsaturated fatty acids occur in small amounts in all foods. Polyunsaturated oils contain large* amounts of polyunsaturated fatty acids. Commercial polyunsaturated oils made from corn, soy, safflower and sunflower seeds are new to human diets. The use of these industrially processed oils is 4 fold higher today than it is was in 1900.[1]

- *Polyunsaturated fatty acids are very fragile. When exposed to heat and oxygen, as during industrial* processing, they form free radicals and other harmful breakdown products that damage the body in many ways.[2]

- Modern processing destroys the vitamins and antioxidants in vegetable oils, but the pesticides are retained. (Seed oils are highly sprayed.)[3]

- Polyunsaturated oils cause the formation of black-brown ceroid pigment deposits, a sign of aging.[4]

- In animal studies, polyunsaturated oil shorten life-span and increase the possibility of atherosclerosis, cancer and other disease.[5]

- Polyunsaturated oils increase the levels of uric acid in the body, a sign of the destruction of protein. An elevated level of uric acid is a heart disease risk factor.[6]

- In animals, consumption of excessive polyunsaturates causes cirrhosis of the liver, similar to that caused by excessive alcohol.[7]

- Many studies have shown that polyunsaturated oils cause cancer.[8]

- Polyunsaturated oils are particularly damaging to the reproductive organs and the lungs.[9]

- Polyunsaturated oils depress learning ability, especially under conditions of stress.[10]

- Polyunsaturated oils given to young animals and impair growth.[11]

- When heated, as in cooking, polyunsaturated oils bond to each other forming polymers, leading to digestive problems (varnish and shellac are polymers).[12]

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Appendix VI

HEALTH IMPLICATIONS OF FRUCTOSE

1. Fructose has no enzymes, vitamins, and minerals and robs the body of its micronutrient treasures in order to assimilate itself for physiological use.
2. Fructose browns food more readily (Maillard reaction) than with glucose. The Maillard reaction, a browning reaction, happens with any sugar. With fructose it happens seven times faster with than glucose, results in a decrease in protein quality and a toxicity of protein in the body.[1] This is due to the loss of amino acid residues and decreased protein digestibility. Maillard products can inhibit the uptake and metabolism of free amino acids and other nutrients such as zinc and some advanced Maillard products have mutagenic and/or carcinogenic properties. The Maillard reactions between proteins and fructose, glucose, and other sugars may play a role in aging and in some clinical complications of diabetes.[2]
3. Research showed that in subjects that had healthy glucose tolerance and those that had unhealthy glucose tolerance, fructose caused a general increase in both the total serum cholesterol and in the low density lipoproteins (LDL) in most of the subjects.[3] This puts a person at risk for heart disease.
4. Another study showed that the very low-density lipoproteins (VLDL) increased without an apparent change in high-density lipoproteins (HDL). The VLDL and the LDL should be as low as possible and the HDL should be as high as possible.[4]
5. There is a significant increase in the concentration of uric acid that is dependent on the amount of fructose digested. After glucose no significant change occurs. An increase in uric acid can be an indicator of heart disease.[5]
6. Fructose ingestion in humans results in increases in blood lactic acid, especially in patients with preexisting acidotic conditions such as diabetes, postoperative stress, or uremia. The significance to human health is that extreme elevations cause metabolic acidosis and can result in death.[6]
7. Fructose is absorbed primarily in the jejunum and metabolized in the liver. Fructose is converted to fatty acids by the liver at a greater rate than is glucose.[7] When consumed in excess of dietary glucose, the liver cannot convert all of the excess of fructose in the system and it may be malabsorbed. What escapes conversion and being absorbed into the cells may be thrown out in the urine. Diarrhea can be a consequence.[8]
8. Fructose interacts with oral contraceptives and elevates insulin levels in women on "the pill."[9]
9. Fructose reduced the affinity of insulin for its receptor. This is the first step for glucose to enter a cell and be metabolized. As a result, the body needs to pump out more insulin, to handle the same amount of glucose.[10]
10. Fructose consistently produced higher kidney calcium concentrations than did glucose in a study with rats. Fructose generally induced greater urinary concentrations of phosphorus and magnesium and lowered urinary pH compared with glucose.[11] The balance of minerals in the body is very important for the function of vitamins, enzymes and other body function. When the minerals are out of the right relationship, the body chemistry suffers. The presence of diarrhea might be the cause of decreased absorption of minerals.
11. Fructose-fed subjects lose minerals. They had higher fecal excretions of iron and magnesium than did subjects fed sucrose. Apparent iron, magnesium, calcium, and zinc balances tended to be more negative during the fructose feeding period as compared to balances during the sucrose feeding period.[12]
12. A study of 25 patients with functional bowel disease showed that pronounced gastrointestinal distress may be provoked by malabsorption of small amounts of fructose.[13]
13. Many times fructose and sorbitol are substituted for glucose in parenteral nutrition (intervenious feeding, IV). This can have severe consequences with people with hereditary fructose intolerance, a congenital disorder affecting one in 21,000. A European doctor declared: "Fructose and sorbitol containing infusion fluids have no further place in our hospital pharmacies."
14. There is significant evidence that high sucrose diets may alter intracellular metabolism, which in turn facilitates accelerated aging through oxidative damage. Scientists found that the rats given fructose had more undesirable cross-linking changes in the collagen of their skin than in the other

groups. These changes are also thought to be markers for aging. The scientists say that it is the fructose molecule in the sucrose, not the glucose, which plays the larger problem.[14]

15. Fructose is not metabolized the same as other sugars. Instead of being converted to glucose which the body uses, it is removed by the liver.[15]
16. Because it is metabolized by the liver, fructose does not cause the pancreas to release insulin the way it normally does. Fructose converts to fat more than any other sugar. This may be one of the reasons Americans continue to get fatter. Fructose raises serum triglycerides significantly. As a left-handed sugar, fructose digestion is very low. For complete internal conversion of fructose into glucose and acetates, it must rob ATP energy stores from the liver.[16]
17. Fructose inhibits copper metabolism. A deficiency in copper leads to bone fragility, anemia, defects of the connective tissue, arteries, and bone, infertility, heart arrhythmias, high cholesterol levels, heart attacks, and an inability to control blood sugar levels.[17]

Although these studies were not designed to test the effects of fructose on weight gain, the observation of increased body weight associated with fructose ingestion is of interest. One explanation for this observation could be that fructose ingestion did not increase the production of two hormones, insulin and leptin, that have key roles in the long-term regulation of food intake and energy expenditure.

[Table developed by Nancy Appleton, Ph.D., clinical nutritionist, researcher, lecturer, and author of *Lick the Sugar Habit, Healthy Bones, Heal Yourself With Natural Foods and the Curse Of Louis Pasteur and Lick the Sugar Habit Sugar Counter*]

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Appendix VII

NAMES OF INGREDIENTS THAT CONTAIN ENOUGH MONOSODIUM GLUTAMATE (MSG) TO SERVE AS COMMON MSG-REACTION TRIGGERS

These ALWAYS contain MSG

Glutamate
Calcium Caseinate
Monopotassium Glutamate
Hydrolyzed Protein (any protein that is hydrolyzed) including Hydrolyzed Vegetable Protein and Hydrolyzed Plant Protein
Glutamic Acid
Textured Protein (Including TVP)
Yeast Extract
Gelatin
Yeast Nutrient
Yeast Food
Hydrolyzed Corn Gluten
Monosodium Glutamate
Sodium Caseinate
Autolyzed Yeast

These OFTEN contain MSG or create MSG during processing

Carrageenan
Natural Pork Flavoring
Commercial Bouillon and Broth
Natural Beef or Chicken Flavoring
Commercial Stock
Whey Protein Concentrate
Whey Protein
Whey Protein Isolate
Flavor(s) and Flavoring(s)
Natural Flavor(s) and Flavoring(s)
Maltodextin
Citric Acid
Ultra-pasteurized
Barley Malt
Pectin
Protease
Protease Enzymes of various sources can release excitotoxin amino acids from food proteins
Anything Enzyme Modified
Enzymes anything

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Malt Extract
Malt Flavoring
Soy Protein Concentrate
Soy Protein Isolate
Soy Sauce
Soy Sauce Extract
Soy Protein
Anything Protein Modified
Seasonings and Spices

Other Sources of MSG

Reduced Fat Milks
Non-organic Fruits and Vegetables (sprayed with a growth enhancer containing MSG)
Microwaved Foods

Source: Samuels, Jack, "MSG Update: The Obesity Epidemic – Should We Believe What we Read and Hear?," *Wise Traditions*, Weston A . Price Foundation, vol 5, no. 2, Summer 2004, p. 38.

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