



# Health Connections

LINKING NUTRITION RESEARCH TO PRACTICE

## IMPROVING THE NATION'S HEALTH:

# Translating Dietary Guidelines into Food Choices

This is an exciting and unique time in the fields of nutritional sciences, public policy and consumer education. We've seen an explosion in the knowledge base linking foods and dietary patterns to preventing disease and optimizing health. If the current revolving door of popular diets is any indication, consumers are taking interest in their food choices. Both mainstream and niche products in the marketplace vie for the purchasing power of consumers seeking to improve their health.

The Dietary *Guidelines for Americans 2005* and the United States Department of Agriculture's (USDA's) "MyPyramid" Food Guidance System represent the most up-to-date research and recommendations to help consumers achieve their specific health goals through tailored food choices. This issue of Health Connections synthesizes these updated recommendations and highlights key points in understanding, translating and applying them to clients.

### A Cohesive Triumvirate of Recommendations

The report of the Dietary Guidelines Advisory Committee<sup>1</sup> (DGAC), the *Dietary Guidelines for Americans* and the USDA's *MyPyramid* differ in purpose, scope, audience, and detail. Taken together, however, these publications form a triumvirate of recommendations to improve our nation's health and reduce the risk for major chronic diseases through diet and physical activity.

The report of the 2005 DGAC contains a set of nine major messages (see Sidebar on page 3), 23 key recommendations and 18 additional recommendations for specific population groups to help reduce major diet-related health problems – overweight and obesity, hypertension, abnormal blood lipids, diabetes, some types of cancer and osteoporosis.

The report represents the evidence-based analysis of the science supporting the *Dietary Guidelines* ([www.healthierus.gov/dietaryguidelines](http://www.healthierus.gov/dietaryguidelines)) which form

the foundation for federal food and nutrition policy, influence the direction of government nutrition programs, research, labeling and nutrition education. The *Guidelines* contain considerable technical information, thus are not oriented toward the general public but rather are meant to help policymakers and educators speak with one voice on the role of diet in health promotion and risk reduction. The *Guidelines* provide health professionals with a compilation of the latest recommendations, references and other resources to translate the latest nutrition science into dietary recommendations and customize the broad guidelines across gender, 7 age ranges, 12 calorie and 3 activity levels.

The USDA's new food guidance system, *Steps to a Healthier You*, and the accompanying *MyPyramid* symbol replace the *Food Guide Pyramid* introduced in 1992. The new system emphasizes the need for a more individualized approach to improving diet and lifestyle through improvements to the diet and incorporation of regular physical activity. Several resources and online tools ([www.MyPyramid.gov](http://www.MyPyramid.gov)) help consumers apply the recommendations of the *Dietary Guidelines*.

### Food Groups and Food Patterns to Encourage

The Committee's broadened focus on dietary patterns recognized that people consume foods rather than individual nutrients, and combinations



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of foods rather than isolated foods. Diets rich in milk and milk products can lower the risk of low bone mass, lower blood pressure, are associated with overall diet quality and adequacy of intake of many nutrients; and, in the studies reviewed by the Committee, are not associated with an increase in body weight. Fruits and vegetables as part of a healthful diet reduce the risk of stroke, perhaps other types of cardiovascular disease, type 2 diabetes and certain cancers. Whole grains, as

sources of dietary fiber, may lower the risk of coronary heart disease.

In the DGAC report, the USDA Food Guide (see Table) and the DASH Eating Plan are suggested as two examples of healthy eating patterns, providing adequate calcium, potassium, fiber, magnesium, vitamins E, A and C (vitamin E and potassium depend on calorie level in the USDA Food Guide) while limiting sodium, added sugars, saturated fat and cholesterol.

*In an interview with **Janet C. King**, PhD, RD, Senior Scientist and Professor, University of California, Berkeley and Davis, Children's Hospital Oakland Research Institute and Chair of the DGAC, we explore in more depth the development and intended implementation of the revised Dietary Guidelines for Americans, 2005.*



Janet C. King, PhD, RD

**Q. Are there some messages or issues that you feel warrant more emphasis in the coverage of the Guidelines since their release in January?**

A. Our science base is always evolving. Since issuing the DGAC report, additional research has become available linking fruits, vegetables, whole grains and in some cases dairy products to a lower risk for chronic diseases, including some types of cancer. So in retrospect, efforts to help consumers understand the two-fold purpose for emphasizing fruits, vegetables, whole grains and dairy foods in the “foods to encourage” recommendation are especially important. Consumers who base their diets on these food groups will improve their intake of nutrients to meet the most recent Recommended Dietary Allowances and also reduce their risk of chronic disease.

Also, the Committee sought to clarify for the public the advantage of engaging in regular physical activity most days of the week: 30 minutes for fitness and to lower the risk of chronic diseases; 30-60 minutes or more to prevent weight gain; and 60-90 minutes for those who have lost weight to sustain weight loss. Unfortunately, with a few word changes and nuances, the policy document suggested 60 minutes to manage and prevent gradual weight gain. The press has emphasized the 60-90 minute range - a different message than the Committee intended. Possibly the Department of Health and Human Services will issue a statement to better clarify these distinctions for the public.

I was, nevertheless, pleased to see physical activity emphasized in *MyPyramid: Steps to a Healthier You* and that the pyramid icon remained relatively simple. In general, I think

the USDA's new food guidance system reflects the DGAC report and recommendations.

**Q. This is the first time there has been an overarching emphasis on food patterns in the Dietary Guidelines. What are the benefits of focusing on food patterns rather than specific foods or isolated nutrients?**

A. The concept behind the development and use of food intake patterns is to convert the Institute of Medicine's (IOM) recommendations for almost all nutrients at different calorie levels into broad based food recommendations. A challenge to using this approach is that the nutrient profile of food groups/subgroups is based on our current consumption of foods within each group. For example, the Committee questioned whether to break down the meat, fish, poultry, nuts, seeds group into animal or vegetable protein. This was not done because the USDA food modeling system is based on food choices we actually make. In the fish category, the primary fish choice is tuna. Fish sources of omega-3 fatty acids are not the ones Americans eat. The same can be said for nuts; we eat peanuts more so than almonds or walnuts. As nutritionists we need to conduct food modeling using foods promoted for health rather than based on those commonly eaten.

The Committee was criticized for not telling consumers to avoid specific foods. However, it was felt that focusing on specific foods can become an issue when developing guidelines to be implemented by all cultures in our diverse population. In addition, research supports the concept that diet quality is improved with a varied intake. The recommendation to select from the basic food groups includes the critical element of variety within each of the food groups, as evidenced by the grain and vegetable

**REFERENCES**

<sup>1</sup>The DGAC was advisory to the Secretaries of the U.S. Department of Health and Human Services (HHS) and the Department of Agriculture (USDA). Both Departments issued the Dietary Guidelines for Americans 2005 in January. USDA released the consumer-focused MyPyramid - Steps to a Healthier You Food Guidance System (to replace the Food Guide Pyramid) in April 2005. (<http://www.health.gov/dietaryguidelines/dga2005/report/> and [www.MyPyramid.gov](http://www.MyPyramid.gov))

subgroups. Health professionals who develop diets/meals/menus can plug in specific foods to help individuals meet nutrient needs and preferences within a given calorie level - a luxury we don't have when developing recommended food intake patterns. The health professional plays a critical role in customizing general recommendations into specific food choices.

**Q. Nutrient density was also mentioned in the Guidelines. What does this term mean and what role does it play in a healthy diet?**

A. Interest in nutrient-dense foods is on the horizon once again. Many Americans take in more calories than they need without meeting recommended intakes for some nutrients. To stem the obesity epidemic, the *Guidelines* focus on nutrient-dense foods – those that provide substantial levels of vitamins and minerals with relatively few calories – a concept especially important for sedentary individuals. The DGAC supported the concept of nutrient density without specifically defining which nutrients, in which amounts, at what calorie level. Even without a specific definition of “nutrient density,” health professionals can help consumers improve the nutrient quality of their diets by choosing foods within the basic food groups and limiting nutrient-poor foods and beverages such as those with excessive sugar, solid fat, and alcohol.

**Q. Could you describe the concept and use of discretionary calories in meeting nutrient needs within calorie limits?**

A. Given our ample food supply, we can't eat everything, be sedentary and expect to maintain appropriate weight. We have to convey to consumers the need to show some discretion and choose foods wisely. In general, the range in daily discretionary calories for sedentary individuals will be 150-300 per day. Health professionals can help consumers see how

quickly and easily their food choices supply these calories and the consequences of a lifetime of calorie creeping. On the other hand, there is opportunity to communicate the benefits of consistent small changes that can have a big effect in offsetting weight gain and/or maintaining weight - for example, lowering intake by 50-150 calories a day.

**Q. What are some important areas of future research for the next revision of the Dietary Guidelines?**

A. We need additional research on the interrelationship between macro and micronutrient requirements and energy requirements for physical activity. For example, the fiber requirement is based on 14 g /1000 calories. Do we need more fiber as we become more physically active? Meeting the fiber requirement drives up the servings of whole grains, fruits and vegetables.

We also need more research testing the impact of food patterns – rather than individual nutrients – on improving health. We had a definite advantage in having results from the DASH study, which demonstrated the efficacy of the Food Guide Pyramid food pattern on lowering blood pressure. Such research increases our confidence in the ability of food patterns to improve health.

**SIDEBAR: Major Messages Conveyed by the Dietary Guidelines<sup>1</sup>**

- Consume a variety of foods within and among the basic food groups while staying within energy needs.
- Control calorie intake to manage body weight.
- Be physically active every day.
- Increase daily intake of fruits and vegetables, whole grains, and nonfat or low-fat milk and milk products.
- Choose fats wisely for good health.
- Choose carbohydrates wisely for good health.
- Choose and prepare foods with little salt. If you drink alcohol, do so in moderation. Keep food safe to eat.

**TABLE: Sample USDA Food Guide For 2000 Calorie Level**

<b>Fruits</b>	2 c	<i>Amounts are per day unless otherwise noted.</i> <i>c = cups;</i> <i>oz = ounces;</i> <i>g = grams;</i> <i>wk = week.</i>  <i>Source: Dietary Guidelines for Americans, 2005.</i>
<b>Vegetables</b>	2 1/2 c	
■ Dark green veg	■ 3 c/wk	
■ Orange veg	■ 2 c/wk	
■ Legumes	■ 3 c/wk	
■ Starchy veg	■ 3 c/wk	
■ Other veg	■ 6 1/2 c/wk	
<b>Grains</b>	6 oz	
■ Whole grains	■ 3 oz	
■ Other grains	■ 3 oz	
<b>Meat and Beans</b>	5 1/2 oz	
<b>Milk and Milk Products</b>	3 c	
<b>Oils</b>	6 tsp	
<b>Discretionary calorie allowance</b>	265	

**PRACTICE POINTS FOR THE HEALTH PROFESSIONAL: Customizing the Guidelines**

- Recognize the inter-relationship among the *Guidelines'* 9 topic areas. Identify one or two that target a client's primary health needs to prevent information overload. Other recommendations may be met simultaneously because of their inter-relationship.
- Acknowledge the concept of discretionary calories to meet consumers' desire to include foods higher in added fat, or sugars. Discretionary calories help consumers enjoy some of these taste-driven food choices that may represent cultural or family favorites.
- Become familiar with and encourage consumers to use the information and interactive features on [www.MyPyramid.gov](http://www.MyPyramid.gov) to personalize food choices and meet daily nutrient needs. Copy and use the insert (which can be downloaded from the website) as a handout with clients.
- Stay abreast of media coverage by reading popular magazines, newspapers and health information from the same sources your clients use. This prepares you to respond to their questions in an informed way.