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# The Dietary Guidelines Focus on Reducing Excessive Intakes

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ver this century, advances in agriculture, food processing, and food enrichment programs have made nutrient-deficiency diseases, such as scurvy and pellagra, rare among Americans. Yet 4 of the 10 leading causes of death today are diseases where diet plays a part—coronary heart disease, some types of cancer, stroke, and diabetes.

Diet-related diseases now represent the top three causes of mortality—ahead of infectious diseases, many of which have been eliminated by medical advances over the century.

Diet composition and physical activity levels have also changed substantially over this century. Many American diets have too many calories and too much fat, cholesterol, and sodium. They also have too little complex carbohydrates and fiber. Such diets are one cause of America's high rates of obesity and chronic diseases.

Although the exact role of diet in chronic diseases is still being studied, nutrition authorities agree that enough is known about diet's effect on health to encourage certain changes in dietary practices.

The Dietary Guidelines for Americans (fig. 1) are seven recommendations for a healthful diet—advice for healthy people 2 years of age or more. These serve as the central statement of Federal nutrition policy and the focus of nutrition education programs to improve the health and wellbeing of the Nation.

Following the Dietary Guidelines will help Americans enjoy better health:

Eat a variety of foods to get energy (calories) and the more than 40 nutrients needed for good health, such as protein, vitamins, minerals, and fiber.
 Many foods are rich sources of several nutrients, but no single food can supply all the nutrients in the amounts needed.



The Dietary Guidelines suggest directional changes in the consumption of food components—such as "choose a diet with plenty of vegetables, fruit, and grain products"—to reduce the risks of chronic disease.

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- Maintain a healthy weight to reduce the chances of high blood pressure, heart disease, a stroke, certain cancers, and noninsulin-dependent diabetes.
- Choose a diet low in fat, saturated fat, and cholesterol to reduce the risk of heart attack and certain types of cancer. Because fat contains over twice the calories as an equal amount of carbohydrates or protein, a diet low in fat can help maintain a healthy weight.
- Choose a diet with plenty of vegetables, fruit, and grain products to receive the needed vitamins, minerals, fiber, and complex carbohydrates and to help reduce the intake of fat. It's important to get these nutrients from a variety of foods rather than from supplements alone. For example, research indicates that some of the benefits from a high-fiber diet may come from the food that provides the fiber, rather than from the fiber itself.
- Use sugars only in moderation.
   A diet with lots of sugars has too many calories and/or too few nutrients for most people and can contribute to tooth decay. Excessive use can displace more nutritious foods, resulting in low nutrient intakes.
- Use salt and sodium only in moderation to help reduce risk of high blood pressure, especially for those whose blood pressure rises with excessive salt consumption.
- If you drink alcoholic beverages, do so in moderation. Alcoholic beverages supply calories, but little or no nutrients. Drinking alcohol also causes many health problems and accidents and can lead to addiction. Too much alcohol may cause cirrhosis of the liver, inflammation of the pancreas,

damage to the brain and heart, and increase the risk for many cancers.

## Dietary Advice Updated With Scientific Advances

The Dietary Guidelines are the latest in a history of Federal efforts at nutrition education and dietary guidance. Government nutritionists have provided advice to Americans about what to eat for nearly a century.

In 1902, W.O. Atwater, pioneer nutrition investigator and the first director of the Office of Experiment Stations in USDA, emphasized the importance of variety, proportionality, and moderation in healthful eating. He stated, "for the great majority of people in good health, the

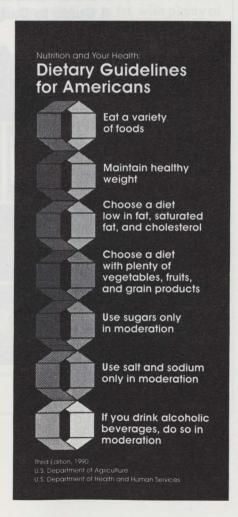
ordinary food materials...make a fitting diet, and the main question is how to use them in the kinds and proportions fitted to the actual needs of the body." Many of our dietary guidance efforts have focused on answering this question.

The first USDA food guide in 1916 translated the emerging science of nutrition into national dietary recommendations for consumers. As more was learned about vitamin and mineral requirements and food consumption patterns of the population, food guides such as the "Basic Seven" (1946) and the "Basic Four" (1958) focused on choosing enough of the kinds of foods to provide the nutrients needed for good health.

These guides outlined a "foundation diet" made up of minimum numbers of servings of nutritious foods from several food groups that together would provide a major share of the recommended amounts of vitamins and minerals known at the time these guides were developed. These foundation diets provided only about one-half to two-thirds of average energy (calorie) needs. It was assumed that people would include additional, less nutritious foods to meet their calorie needs. However, these guides provided little specific guidance about the use of fats and sweets.

In the 1960's, research began to indicate a connection between excessive consumption of certain dietary components—such as fat, saturated fat, cholesterol, and sodium—and the risk of some chronic diseases, such as heart disease and stroke.

A turning point in Federal dietary guidance came in 1977, when the U.S. Senate Select Committee on Nutrition and Human Needs issued *Dietary Goals for the United States*. These goals shifted the focus from obtaining adequate amounts



of vitamins and minerals to avoiding excessive intakes of food components that had been linked to chronic diseases.

In 1980, USDA and the Department for Health and Human Services (DHHS) published the first edition of Nutrition and Your Health: Dietary Guidelines for Americans to help consumers make healthier food choices. These guidelines suggested directional changes in the consumption of food componentsreduce intake of fat, sugar, sodium, and alcohol, and increase the intake of starch and fiber-to reduce the risk of chronic diseases, such as heart disease, high blood pressure, diabetes, dental caries, and some cancers.

The Dietary Guidelines were revised and reissued in 1985 and again in 1990, based on expert review of relevant new research.

A 1988 study found widespread adoption and acceptance of the Dietary Guidelines by national, State, and local professionals involved in the communication of food and nutrition information. The health professionals interviewed emphasized the importance of having health and nutrition experts speak with one voice in identifying important dietary practices. They also urged that dietary guidelines be kept constantly before the public, in a variety of presentations.

Consumer evaluation of the Dietary Guidelines bulletin showed that consumers wanted more specific food-related guidance, definitions of technical terms, and practical tips for behavior change strategies.

While these studies highlight the importance of the Dietary Guidelines for both nutrition professionals and consumers, they also indicate a need for more information on how to use the Dietary Guide-

lines in choosing foods that make up a healthful diet.

#### The Food Guide Pyramid Shows How To Use the Dietary Guidelines

When applying the Dietary Guidelines to food choices, one must keep in mind that they apply to the total diet—not just one food, one meal, or even one day, but all food choices over time. They are intended to work together to help people choose a healthy diet. For example, choosing a diet with plenty of vegetables, fruit, and grain products helps to lower fat in-

take. A diet low in fat and moderate in sugars will help in maintaining a healthy weight. Choosing foods with less fat will make room for calories from the variety of foods needed to get enough protein, vitamins, and minerals.

USDA's Human Nutrition Information Service (HNIS) developed a new food guide to help people use the Guidelines. Unlike earlier ones, the new food guide organizes information about food so that it can be used to make food selections that meet objectives for both nutrient adequacy and moderation of those components related to risk of chronic disease. It outlines the num-

#### Food Guide Pyramid **A Guide to Daily Food Choices** KEY Fats, Oils, & Sweets ☐ Fat (naturally occurring and added) **USE SPARINGLY** These symbols show fat and added sugars in foods. Meat, Poultry, Fish, Milk, Yogurt, Dry Beans, Eggs, & Cheese & Nuts Group Group 2-3 SERVINGS 2-3 SERVINGS Fruit Vegetable Group Group 2-4 SERVINGS 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.

bers of servings from each of five major food groups, and recommends sparing use of a sixth food group—fats, oils, and sweets.

A booklet describing the food guide provides additional information on how to choose foods within each food group that are low in fat, saturated fat, cholesterol, added sugars, or sodium. The pamphlet also explains how to keep total intake of these components to recommended limits.

The Food Guide Pyramid puts all this information together in a graphic presentation that conveys key concepts of the food guidevariety, proportionality, and moderation (fig. 2). Variety among food groups is shown by the names of the groups and by the separate sections of the pyramid. Variety within food groups is shown by pictures of typical food items. Proportionality is conveyed by the size of the food group sections and the text indicating numbers of servings. Moderation of foods high in fat and added sugars is shown by the small size of the tip of the pyramid and the text specifying that people use them sparingly. Moderation related to food choices within food groups is shown by the density of the fat and added sugars symbols in the food groups. The latter message is more clearly explained in the accompanying food guide booklet.

Since its release, the extensive use of the Food Guide Pyramid by nutrition and health professionals, educators, media, and the food industry promises to make it an effective educational tool.

### The Future for Dietary Guidelines

In the future, more and better screening tests will become available to help individuals assess their personal relative risk for developing chronic diseases related to diet. Results from such tests will provide information about the specific dietary changes most likely to improve one's health.

A new Dietary Guidelines Advisory Committee will soon be convened to review dietary recommendations for the population. We expect continued emphasis on choosing a diet low in fat, with plenty of vegetables, fruit, and grain products—foods rich in dietary fiber and antioxidant nutrients (such as vitamins A, C, and E, which may help reduce risk of some types of cancer). Lowfat milk and lean meats will continue to be important sources of calcium, iron, and zinc in U.S. diets.

Even though "designer foods" with enhanced nutrient content may become available, there will be continued emphasis on consumption of a wide variety of foods from diverse food groups. This way, consumers will be less likely to miss out on food components about which we know little at the moment. It can also help them avoid unforeseen adverse nutrient interactions.

We also expect a greater emphasis on adequate physical exercise in addition to a healthful diet for attaining and maintaining maximal

health and wellbeing and preventing chronic disease.

The Dietary Guidelines and the USDA Food Guide may be revised as the science base evolves. But it is likely that the underlying themes of variety, proportionality, and moderation initiated almost 100 years ago will apply to choosing healthy diets for many years to come.

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