

A Dietary Assessment of the U.S. Food Supply

Comparing Per Capita Food Consumption with Food Guide Pyramid Serving Recommendations

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Federal Dietary Guidance Promotes Healthy Eating

Most American diets do not meet Federal dietary recommendations depicted in the Food Guide Pyramid. Diet-related chronic diseases, including coronary heart disease, cancer, stroke, and diabetes, account for nearly two-thirds of all deaths in the United States each year (Frazao, 1995). Healthy diets, such as those abundant in grains, vegetables, and fruits, and low in fat, saturated fat, and cholesterol, combined with moderate and regular physical activity, can reduce the risk for these diseases. USDA's Economic Research Service (ERS) estimates that improved diets could prevent \$48 billion in medical costs and lost productivity resulting from disability, and \$28 billion (in 1995 dollars) in the value of premature deaths (Frazao, forthcoming).

Growing scientific evidence about the relationship between diet and health has increased the need for information on the quality and composition of the American diet. The National Nutrition and Related Research Act of 1990 (Public Law 101-445) set in place the Ten-Year Comprehensive Plan for National Nutrition Monitoring and Related Research Program. Key to this program are Federal efforts to monitor the dietary and nutritional status of the population. ERS maintains one of two major information systems that contribute to this monitoring activity. The ERS information system provides detailed estimates of food available for domestic human consumption. This study is the first dietary assessment to use ERS's time-series food consumption data to compare average diets with Federal dietary recommendations presented in the Food Guide Pyramid. The analysis gives Federal policy officials and nutrition educators addi-

tional insights about the progress of our Nation in achieving healthier diets. More importantly, this research will allow ERS, for the first time, to directly link dietary recommendations to the U.S. food production and marketing system.

Federal dietary guidance outlined in the 1995 Dietary Guidelines for Americans¹ and illustrated graphically in the Food Guide Pyramid² (USDA, CNPP, 1996) is intended to help consumers choose diets that improve health and meet their nutritional needs.

The 1995 Dietary Guidelines summarize the most current scientific evidence on diet and health into recommendations for healthy Americans 2 years of age and older and serve as the basis for Federal nutrition and education programs. These guidelines outline seven dietary recommendations that consumers should adopt for better health:

- Eat a variety of foods
- Balance the food you eat with physical activity—maintain or improve your weight

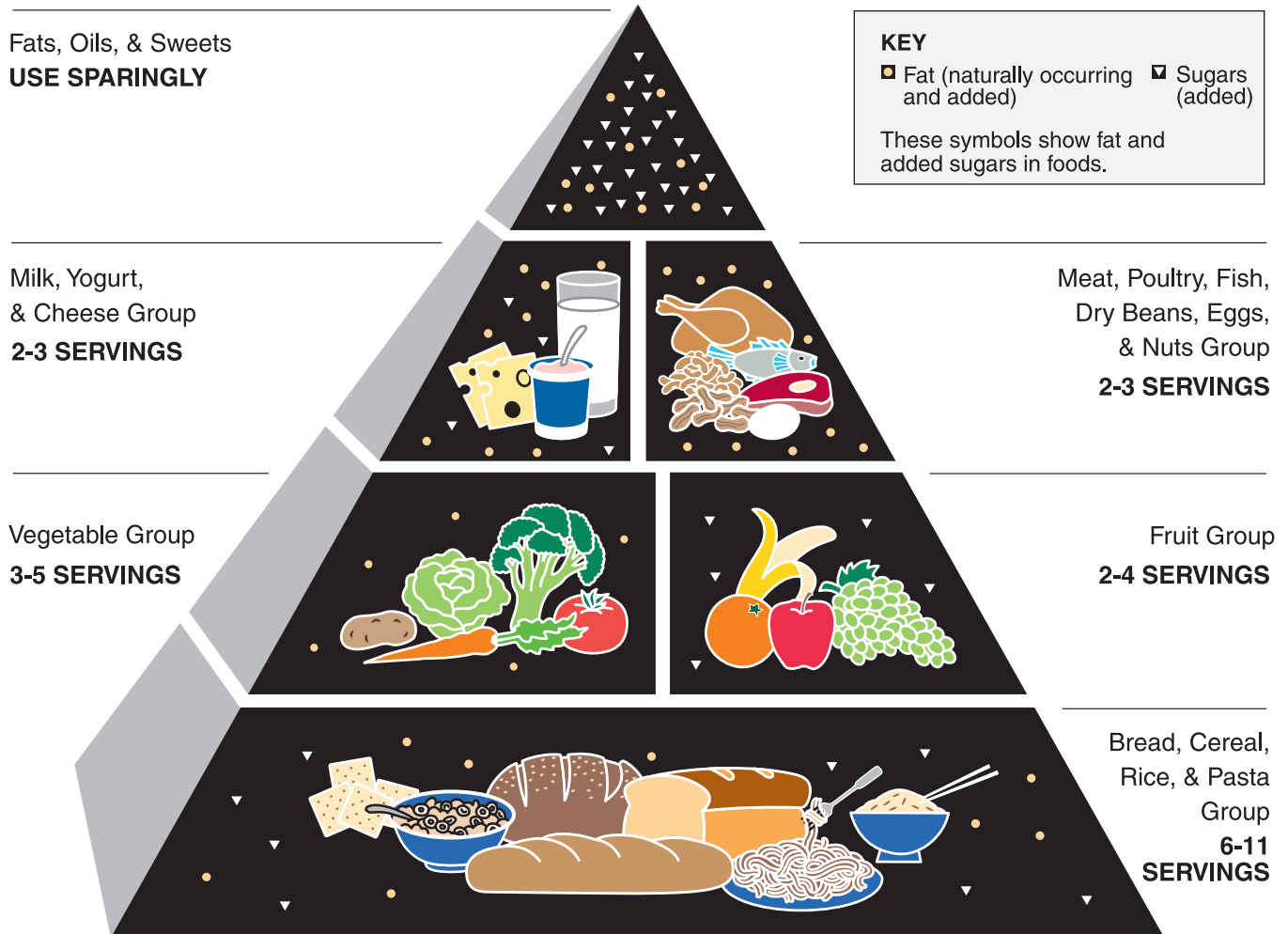
¹The full text of the 1995 Guidelines can be found in the publication, *Nutrition and Your Health: Dietary Guidelines for Americans*, 4th ed. 1995. In this report, references to the full text are italicized.

²The Food Guide Pyramid illustrates the research-based food guidance system developed by the U.S. Department of Agriculture (USDA) and supported by the Department of Health and Human Services (HHS). The Food Guide Pyramid graphic is published as part of a larger bulletin of dietary guidance published by the U.S. Department of Agriculture, Center for Nutrition Policy and Promotion, *The Food Guide Pyramid*, Home and Garden Bulletin Number 252, October 1996. In this report references to *The Food Guide Pyramid* bulletin are italicized.

- Choose a diet with plenty of grain products, vegetables, and fruits
- Choose a diet low in fat, saturated fat, and cholesterol
- Choose a diet moderate in sugars
- Choose a diet moderate in salt and sodium
- If you drink alcoholic beverages, do so in moderation

The Food Guide Pyramid helps consumers put these guidelines into practice by recommending the type and quantity of foods to eat from five major food groups—bread, cereals, rice, and pasta; vegetables; fruit; milk, yogurt, and cheese; and meat, poultry, fish, dry beans, eggs, and nuts. It also suggests that consumers use fats, oils, and sweets sparingly (USDA, CNPP, 1996). *The Dietary Guidelines* recommend that Americans limit total fat intake to 30 percent of calories. A diet low in fat will reduce consumers' chances of getting certain diseases and help consumers to maintain a healthy weight. To avoid getting

Figure 1
The Food Guide Pyramid



Source: USDA, CNPP, 1996.

too many calories from sugars, *The Dietary Guidelines* suggest that consumers use sugars in moderation—and sparingly for persons whose calorie needs are low.

The Food Guide Pyramid shows a range of servings for each major food group (fig. 1). The number of

servings that are right for any one person varies depending on age, sex, and physiological status (table 1). Almost everyone should have at least the lowest number of servings in the ranges, except for preschool children who can eat smaller servings based on their lower calorie requirements. Sample serving sizes for each food group are listed in box 1.

Table 1—The Food Guide Pyramid serving recommendations vary with age, sex, and physiological status

Daily calorie intake ¹	Bread, cereals, rice, and pasta	Vegetables	Fruit	Milk, yogurt, and cheese ²	Meat, poultry, fish, dry beans, eggs, and nuts	Total fats ³	Added sugars ⁴
	-----Number of daily servings-----				Ounces	Grams	Teaspoons
1,600 calories: Many sedentary women, and some older adults	6	3	2	2-3	5	53	6
2,200 calories: Most children, teenage girls, active women, and many sedentary men	9	4	3	2-3	6	73	12
2,800 calories: Teenage boys, many active men, and some very active women	11	5	4	2-3	7	93	18

¹Sample diets for a day at three calorie levels. Calorie levels are based on Recommended Energy Allowances (National Research Council, 1989) and average calorie intake reported in national food consumption surveys.

²Three servings of milk, yogurt, and cheese are appropriate for teenagers and young adults to age 24 and for pregnant and breastfeeding women. Two servings are recommended for other adults and children.

³The 1995 Dietary Guidelines recommend that consumers choose a diet that provides no more than 30 percent of total calories from fat. The upper limit on the grams of fat in a consumer's diet will depend on calorie intake. For example, for a person consuming 2,200 calories per day, the upper limit on total daily fat intake is 660 calories. Seventy-three grams of fat contribute about 660 calories (73 grams x 9 calories per gram of fat = 660 calories).

⁴To avoid getting too many calories from sugar, dietary guidance suggests that consumers try to limit added sugars to the daily quantities listed.

Source: *The Food Guide Pyramid*, USDA/CNPP, Home and Garden Bulletin Number 252, October 1996.

Box 1—What Is a Recommended Serving?

To guide consumers in their daily food choices, *The Food Guide Pyramid* bulletin suggests a range of servings for different levels of calorie intake. Most consumers should have at least the minimum number of servings each day, except for preschool children who can eat smaller servings based on their lower calorie requirements. Sample serving sizes for each food group are listed below.

Bread, cereal, rice, and pasta

- 1 slice of bread
- ½ cup cooked cereal, rice, or pasta
- 1 oz. ready-to-eat cereal
- ½ English muffin or bagel
- 1 tortilla
- 3-4 small crackers
- 2 4" pancakes

Fruit

- 1 whole fruit (medium apple, orange, banana)
- ½ cup chopped, cooked, or canned fruit
- ¾ cup fruit juice
- ½ grapefruit
- ¼ cup dried fruit
- ½ cup berries

Meat, poultry, fish, dry beans, eggs, and nuts

- 2-3 oz. cooked lean meat, poultry, or fish are 1 serving;
- 1 egg; 2 tablespoons of peanut butter; ½ cup cooked dry beans, peas, or lentils; ⅓ cup of nuts count as 1 oz. of meat (about ⅓ serving)

Vegetables

- 1 cup of raw leafy vegetables
- ½ cup cooked or canned vegetables
- 7-8 carrot sticks
- 1 medium potato
- ¾ cup vegetable juice

Milk, yogurt, and cheese

- 1 cup milk
- 8 oz. plain or flavored yogurt
- 1-½ oz. natural cheese
- 2 oz. process cheese

Sources: Adapted from USDA, CNPP, *The Food Guide Pyramid*, Home and Garden Bulletin No. 252, October 1996; *Choose a Diet with Plenty of Vegetables, Fruits, and Grain Products*, Home and Garden Bulletin No. 253-5, July 1993; and *Eat a Variety of Foods*, Home and Garden Bulletin No. 253-2, July 1993.