

The “plate” image is divided into five sections: Fruits, Grains, Vegetables, Protein, and Dairy (Figure 28-1; Table 28-1). Half of the “plate” should be vegetables and fruits, and the other half grains and proteins, with dairy on the side. The “plate” is simple, organized, and serves as a guide for healthy eating. A weekly recommendation for vegetable intake is also provided (Table 28-1). Other suggestions include the following: switch to fat free or low-fat (1%) milk; make at least half of the grains whole instead of refined grains; avoid oversize proportions; compare sodium (salt) in foods such as soup, bread, and frozen meals; choose foods with lower sodium content; and drink water instead of sugary drinks. After 2 years, it is recommended that the fat intake gradually be reduced to approximately 30% and not less than 20% of calories. Replace proteins from red meat with a mix of fish, chicken, nuts, and legumes. Power struggles over eating are common between parents and toddlers. The parent’s role is to decide the what, when, and where of the meals. The child’s role is to decide if, what, and how much to eat.

IRON INTAKE

Iron intake may be inadequate in some children between 1 and 3 years of age in the United States. Significant iron deficiency anemia exists in some high-risk minority or low-income

populations of young children. Toddlers with excessive milk intakes (>32 oz/day) and/or those who consume little meat, green leaves rich in iron, or grains are at risk for iron deficiency.

NUTRITION ISSUES FOR ADOLESCENTS

Teen nutrition can be a challenge. Ads for junk food and images of incredibly thin adolescents provide conflicting and unhealthy ideas about what they should eat. Girls ages 14 to 18 need anywhere from 1800 to 2400 calories per day, depending on their activity level and stage of development. Boys of the same age group need 2000 to 3200 calories daily. Poor eating habits may develop during adolescence. Skipped meals (especially breakfast), binge eating with friends or alone, dieting, and consumption of nutrient-poor, calorically dense foods are common problems. Excessive consumption of sugar from soda, fruit drinks, and specialty coffee and tea drinks may contribute to excess weight gain as well as tooth decay and may displace other needed nutrients. Poor calcium intake during adolescence may predispose the adult to future osteoporotic hip fracture. Osteoporosis (osteopenia) during adolescence caused by poor dietary calcium or vitamin D intake or poor absorption of ingested calcium in children and adolescents is a potential problem. Only 1 of 10 teenage girls and 1 of 4 teenage boys get enough calcium every day. Adolescents ages 9 to 18 need 1300 milligrams of calcium daily. Good sources include milk, yogurt, fortified orange juice, cheese, soybeans, and tofu.

Inadequate iron intake may result in symptoms of fatigue and iron deficiency anemia. Iron needs increase during growth spurts, which is why teens are more likely to suffer from iron deficiency anemia. Teenage girls are especially prone to anemia. Student athletes are also vulnerable to inadequate iron intakes, severely restrictive eating patterns, and use of inappropriate nutritional and vitamin supplements. Adolescents should be counseled on specific and healthy dietary choices (see Chapter 70).

AGE (YEARS)	GREEN	ORANGE	STARCH	DRY BEANS/ PEAS	OTHER*
2-3	1	½	1½	½	4
4-8	1½	1	2½	5½	4½
>9 Girls	2	1½	2½	2½	5½
>9 Boys	3	2	3	3	6½

From www.ChooseMyPlate.gov

*Including cabbage, cauliflower, green beans, lettuce, zucchini.

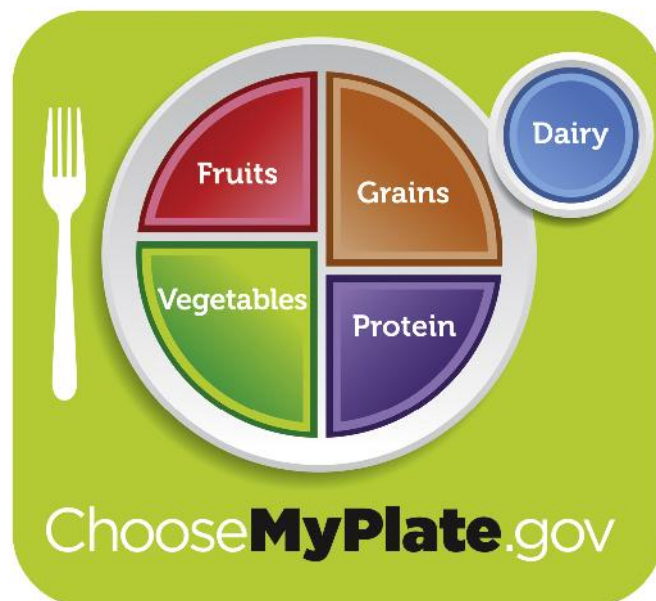


Figure 28-1 “ChooseMyPlate” guidelines developed by the U.S. Department of Agriculture. (From www.ChooseMyPlate.gov)

Chapter 29

OBESITY

EPIDEMIOLOGY

Childhood obesity is an epidemic in the United States. Data indicate that approximately 17% of children in the United States ages 2 to 20 are obese (body mass index of ≥95th percentile) and more than 30% of U.S. adults are obese. Many obese children become obese adults, and the risk of remaining obese increases with age and degree of obesity. Obesity runs in families and is rarely related to genetic influences. The largest increases in the prevalence of obesity are seen in the most severely overweight classifications and in certain ethnic groups, such as African-American and Mexican-American children. In 2008, obesity cost the nation \$147 billion in medical costs. The associations between obesity and television