

Safe and Effective Weight Loss

With the incidence of overweight and obesity reaching epidemic proportions, many people engaged in exercise programs are increasing their physical-activity levels in hopes of losing weight. Many research studies have shown that regular exercise and proper nutrition results in the best long-term weight loss. Small changes in lifestyle that are sustainable are more likely to result in permanent reductions in body weight.

For safe and effective weight loss, the American College of Sports Medicine (ACSM) recommends that individuals lose no more than 2 pounds (0.9 kg) per week. One pound (0.45 kg) of excess body fat stores about 3500 calories of energy. To lose this fat, the stored energy must be burned to create an **energy deficit** (recall the negative calorie balance equation from the previous section). To lose 2 pounds (0.9 kg) per week, a person must expend 1000 more calories per day than he or she takes in. To lose 1 pound (0.45 kg) per week, a 500-calorie deficit must be created each day (500 calories per day \times 7 days per week = 3500 calories). Losing weight at a faster rate can be harmful to some individuals and has been shown

to be unsuccessful in long-term weight loss. ACSM also recommends that for *realistic* weight loss a person should strive to (1) burn 300–400 calories per workout session, (2) exercise a minimum of three days per week (preferably daily), and (3) create a daily calorie deficit of approximately 500–1000 calories through regular physical activity and calorie monitoring.

Summary

Optimal health and fitness is supported by a nutritious diet. For normal functioning of the body's biological processes, a person needs to consume adequate energy (calories), vitamins, and minerals from food. Physical activity requires all of these nutrients as well. Therefore, the role of proper nutrition in a physical-activity program should not be overlooked. Knowledge of the macronutrients and micronutrients, as well as the energy balance theory, is essential for guiding exercise participants toward healthful eating and reaching their fitness goals. Resources such as the USDA Dietary Guidelines 2005 and the MyPyramid Food Guidance System (www.MyPyramid.gov) should be utilized as primary sources of nutrition information.