9.5: Dietary, Behavioral, and Physical Activity Recommendations for Weight Management

Skills to Develop

- Explain the complementary actions of dietary changes and increased physical activity level on health.
- Formulate an exercise plan that fits your lifestyle and that follows the 2008 Physical Activity Guidelines for Americans.

We have just considered the gravity of the obesity problem in America and worldwide. How is America combating its weight problem on a national level and have the approaches been successful?


The National Weight Control Registry (NWCR) tracks over ten thousand people who have been successful in losing at least 30 pounds and maintaining this weight loss for at least one year. Their research findings are that 98 percent of participants in the registry modified their food intake and 94 percent increased their physical activity (mainly walking.) The National Weight Control Registry. “Research Findings.” Accessed October 8, 2011. http://www.nwcr.ws/
Although there are a great variety of approaches taken by NWCR members to achieve successful weight loss, most report that their approach involved adhering to a low-calorie, low-fat diet and doing high levels of activity (about one hour of exercise per day). Moreover, most members eat breakfast every day, watch fewer than ten hours of television per week, and weigh themselves at least once per week. About half of them lost weight on their own and the other half used some type of weight-loss program. In most scientific studies successful weight loss is accomplished only by changing the diet and by increasing physical activity. Doing one without the other limits the amount of weight lost and the length of time that weight loss is sustained. On an individual level it is quite possible to achieve successful weight loss, as over ten thousand Americans can attest. Moreover, losing as little as 10 percent of your body weight can significantly improve health and reduce disease risk.

**Evidence-Based Dietary Recommendations**


- **Increase intake of whole grains, vegetables, and fruits.** Scientific evidence demonstrates that adults who have a higher intake of whole grains, mainly those high in dietary fiber, have lower body weights compared to adults who eat a smaller amount of whole grains. Moreover diets incorporating more whole grains reduce chronic disease risk. A higher intake of fruits and vegetables is scientifically shown to protect against weight gain in adults and there is some evidence that this is also true for children and adolescents.

- **Reduce intake of sugar-sweetened beverages.** There is good evidence that reducing consumption of sugar-sweetened beverages, especially in children and adolescents, decreases body weight and reduces chronic disease risk.

- **Monitor intake of 100 percent fruit juice for children and adolescents, especially those who are overweight or obese.** There is some evidence that increased intake of 100 percent juice exacerbates weight problems in children and adolescents who are already overweight or obese.

- **Monitor calorie intake from alcoholic beverages for adults.** Drinking in moderation is not linked to weight gain; however, excessive intake of alcohol over time is associated with weight gain.

**Evidence-Based Behavioral Recommendations**

In addition to the dietary recommendations, the **2010 Dietary Guidelines for Americans** offers specific evidence-based recommendations that address behavioral changes aimed to keep calorie intake in balance with physical activity. The recommendations include:

- **Focus on the total number of calories consumed.** Reducing calorie intake improves health and aids in weight management.
• **Monitoring food and caloric intake.** Being more aware of the calories in foods and beverages by reading the Nutrition Facts panel is helpful for consumers to monitor intake. Vigilant monitoring of food and caloric intake assists in weight management.

• **When eating out, choose smaller portions or lower-calorie options.** As mentioned in an earlier section of this chapter, eating out more often, especially at fast food restaurants, contributes to weight gain. The *Dietary Guidelines* advise people that when they are eating out to order smaller portions, share meals when possible, or take home part of the meal.

• **Prepare, serve, and consume smaller portions of foods and beverages, especially those high in calories.** Having less on your plate helps you eat less.

• **Eat a nutrient-dense breakfast.** The old adage that “breakfast is the most important meal of the day” holds true when you consider that not eating breakfast is associated with higher body weights, especially among children and adolescents. Moreover, eating a nutrient-dense breakfast has in some scientific studies been shown to stimulate weight loss.


### Evidence-Based Physical Activity Recommendations

The other part of the energy balance equation is physical activity. The *2010 Dietary Guidelines* are complemented by the *2008 Physical Activity Guidelines for Americans* issued by the Department of Health and Human Services in an effort to provide evidence-based guidelines for appropriate physical activity levels. The *2008 Physical Activity Guidelines* provide guidance to Americans aged six and older about how to improve health and reduce chronic disease risk through physical activity. Increased physical activity has been found in scientific studies to lower the risk of heart disease, stroke, high blood pressure, Type 2 diabetes, colon, breast, and lung cancer, falls and fractures, depression, and dying early. Increased physical activity not only reduces disease risk, but also improves overall health by increasing cardiovascular and muscular fitness, increasing bone density and strength, improving cognitive function, and assisting in weight loss and weight maintenance. The key guidelines for adults are the following (those for pregnant women, children, and older people will be given [elsewhere](elsewhere)): US Department of Health and Human Services. *2008 Physical Activity Guidelines for Americans*. 2008. Accessed October 8, 2011. [http://www.health.gov/paguidelines/guidelines/chapter2.aspx](http://www.health.gov/paguidelines/guidelines/chapter2.aspx).

• Even small amounts of activity are beneficial to your health.

• More substantial health benefits are obtained by doing at least two hours and thirty minutes per week of moderate-intensity, or one hour and fifteen minutes per week of vigorous-intensity aerobic physical activity, or an equivalent combination thereof. Aerobic activity has better benefits if performed for at least ten minutes at a time, spread throughout the week.

• More extensive health benefits occur when moderate aerobic physical activity is increased to five hours per week of moderate-intensity, or to two hours and thirty minutes of vigorous-intensity aerobic physical activity, or a combination thereof. Additional health benefits are gained by going beyond these recommended amounts of physical activity.

• Muscle-strengthening activities at moderate or high intensity involving all major muscle groups two or more days per week provides additional health benefits to aerobic exercise.

<table>
<thead>
<tr>
<th>Moderate Activities</th>
<th>Vigorous Activities</th>
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<tbody>
<tr>
<td>Ballroom/line dancing</td>
<td>Aerobic dance</td>
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<tr>
<td>Biking on level ground</td>
<td>Biking (more than 10 miles per hour)</td>
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<tr>
<td>Canoeing</td>
<td>Heavy gardening (digging, hoeing)</td>
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<tr>
<td>Gardening</td>
<td>Hiking uphill</td>
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<tr>
<td>Baseball, softball, volleyball</td>
<td>Fast dancing</td>
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<tr>
<td>Tennis (doubles)</td>
<td>Jumping rope</td>
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<tr>
<td>Walking briskly</td>
<td>Martial arts (karate)</td>
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<tr>
<td>Water aerobics</td>
<td>Race walking</td>
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<tr>
<td>Using hand cyclers</td>
<td>Jogging or running</td>
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<td>Sports with running (basketball, hockey, soccer)</td>
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<td></td>
<td>Swimming laps</td>
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<tr>
<td></td>
<td>Tennis (singles)</td>
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<tr>
<td></td>
<td>Ice hockey</td>
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Interactive [PageIndex{1}]

To get started on ramping up your physical activity or following a new exercise program use the toolkit, “Be Active Your Way” available from HHS: [http://www.health.gov/paguidelines/activeguide.aspx](http://www.health.gov/paguidelines/activeguide.aspx).

Campaigns for a Healthy-Weight America

On a national level, strategies addressing overweight and obesity in the past have not been all that successful as obesity levels continue to climb. However, in the recent past (2007–2011) several newly created initiatives and organizations are actively reinforcing strategies aimed to meet the challenge of improving the health of all Americans.

https://med.libretexts.org/Courses/Dominican_University/DU_Bio_1550%3A_Nutrition_(LoPresto)_OLD/09%3A_Energy_Balance

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In 2010 the national campaign to reduce obesity was reinforced when First Lady Michelle Obama launched the “Let’s Move” initiative, which has the goal of “solving the challenge of childhood obesity within a generation so that children born today will reach adulthood at a healthy weight.” The White House, Office of the First Lady. “First Lady Michelle Obama Launches Let’s Move: America’s Move to Raise a Healthier Generation of Kids.” February 9, 2010. http://www.whitehouse.gov/the-press-obama-launches-lets-move-americas-move-raise-a-healthier-genera. Another campaign, “Campaign to End Obesity,” was recently established to try to enable more Americans to eat healthy and be active by bringing together leaders from academia and industry, as well as public-health policy-makers in order to create policies that will reverse the obesity trend and its associated diseases. It remains to be seen whether these new initiatives will finally help improve American health.

The “Small-Change” Approach

Currently, most people are not obese in this country. The gradual rise in overweight is happening because, on average, people consume slightly more calories daily than they expend, resulting in a gradual weight gain of one to two pounds a year. In 2003 the idea was first published that promoting small lifestyle changes to reduce weight gain occurring over time in all age groups may better reduce obesity rates in the American population. Hill, J. O. “Can a Small-Changes Approach Help Address the Obesity Epidemic? A Report of the Joint Task Force of the American Society for Nutrition, Institute of Food Technologists, and International Food Information Council.” Am J Clin Nutr 89, no. 2 (2009): 477–84. http://www.ajcn.org/content/89/2/477.long. Scientific studies have demonstrated that asking people to increase the number of steps they take each day while providing them with pedometers that count the steps they take each day...
successfully prevented weight gain. A “small-changes” study published in the October 2007 issue of Pediatrics evaluated whether families that made two small lifestyle changes, which were to walk an additional two thousand steps per day and to eliminate 100 kilocalories per day from their typical diet by replacing dietary sugar with a noncaloric sweetener, would prevent weight gain in overweight children. Rodearmel, S. J. et al. “Small Changes in Dietary Sugar and Physical Activity As an Approach to Preventing Excessive Weight Gain: The America on the Move Family Study.” Pediatrics 120, no. 4 (2007): e869–79. http://pediatrics.aappublications.org...20/4/e869.long. The results of this study were that a higher percentage of children who made the small changes maintained or reduced their BMI in comparison to children of families given a pedometer but not asked to also make physical activity or dietary changes. Rodearmel, S. J. et al. “Small Changes in Dietary Sugar and Physical Activity As an Approach to Preventing Excessive Weight Gain: The America on the Move Family Study.” Pediatrics 120, no. 4 (2007): e869–79. http://pediatrics.aappublications.org...20/4/e869.long. Several more studies funded by the National Institutes of Health and USDA are ongoing and are evaluating the effectiveness of the “small-changes” approach in reducing weight gain.


Key Takeaways

- Successful weight loss is defined as when individuals intentionally lose at least 10 percent of their body weight and keep it off for at least one year.
- Although there is a great variety of approaches to achieve successful weight loss most report that it involves adhering to a low-calorie, low-fat diet and doing high levels of activity (about one hour of exercise per day).
- The 2010 Dietary Guidelines for Americans recommendations are based upon scientific evidence.
- The other part of the energy balance equation is physical activity. The 2010 Dietary Guidelines were complemented by the 2008 Physical Activity Guidelines for Americans issued by the HHS in an effort to provide evidence-based guidelines for appropriate physical activity levels.
- On a national level, strategies addressing overweight and obesity in the past have not been all that successful as obesity levels continue to climb. However, in the recent past (2007–2011) several newly created initiatives and organizations are actively reinforcing strategies that aim to meet the challenge of improving the health of all Americans.

Discussion Starters

1. Discuss ways to address the childhood obesity problem in your own community.
2. Calculate your EER by using the formula in this chapter and determine whether your average daily intake of calories falls below, meets, or exceeds your EER.