2.4: Understanding the Bigger Picture of Dietary Guidelines

Learning Objectives

- Describe the major themes of the 2015-2020 Dietary Guidelines for Americans.

The first US dietary recommendations were set by the National Academy of Sciences in 1941. The recommended dietary allowances (RDA) were first established out of concern that America's overseas World War II troops were not consuming enough daily nutrients to maintain good health. The first Food and Nutrition Board was created in 1941, and in the same year set recommendations for the adequate intakes of caloric energy and eight essential nutrients. These were disseminated to officials responsible for food relief for armed forces and civilians supporting the war effort. Since 1980, the dietary guidelines have been reevaluated and updated every five years by the advisory committees of the US Department of Agriculture (USDA) and the US Department of Health and Human Services (HHS). The guidelines are continually revised to keep up with new scientific evidence-based conclusions on the importance of nutritional adequacy and physical activity to overall health. While dietary recommendations set prior to 1980 focused only on preventing nutrient inadequacy, the current dietary guidelines have the additional goals of promoting health, reducing chronic disease, and decreasing the prevalence of overweight and obesity.
Why Are Guidelines Needed?

Instituting nation-wide standard policies provides consistency across organizations and allows health-care workers, nutrition educators, school boards, and elder-care facilities to improve nutrition and subsequently the health of their respective populations. The 2015–2020 Dietary Guidelines is designed to help Americans eat a healthier diet. Intended for policymakers and health professionals, the 2015 edition of the Dietary Guidelines outlines how people can improve their overall eating patterns — the complete combination of foods and drinks in their diet. The free 2015 edition offers overarching themes about what constitutes a healthy diet, how to shift behaviors to make it possible to follow a healthful diet and a number of Key Recommendations with specific nutritional targets and dietary limits.
Major Themes of the 2015 Dietary Guidelines

The 2015 Dietary Guidelines consists of five major action steps for the American public to improve their eating habits. It also includes several key recommendations. These five steps are as follows:

1. Follow a healthy eating pattern across the lifespan.
2. Focus on variety, nutrient density, and amount.
3. Limit calories from added sugars and saturated fats and reduce sodium intake.
4. Shift to healthier food and beverage choices.
5. Support healthy eating patterns for all.

We will discuss the highlights of each chapter of the 2015 Dietary Guidelines; however, if you are interested in reading more, visit the USDA website, https://health.gov/dietaryguidelines/2015/guidelines/.

How should you develop a healthy eating plan to best achieve your goals of losing weight, gaining weight, or maintaining weight? We will start with some basics and move on to healthy eating patterns. To provide further guidance, several key recommendations are provided. These should be applied in their entirety because of their interconnectedness.

Consume a healthy eating pattern that accounts for all foods and beverages within an appropriate calorie level.

A health heating pattern includes:

- A variety of vegetables from all of the subgroups - dark green, red and orange, legumes (beans and peas), starchy, and other
- Fruits, especially whole fruits
- Grains, at least half of which are whole grains
- Fat-free or low-fat dairy, including milk, yogurt, cheese, and/or fortified soy beverages
- A variety of protein foods, including seafood, lean meats and poultry, eggs, legumes (beans and peas), and nuts, seeds, and soy products
- Oils

The following components of the diet should be limited in order to achieve a healthy eating pattern:

- Consume less than 10 percent of calories per day from added sugars
- Consume less than 10 percent of calories per day from saturated fats
- Consume less than 2,300 milligrams (mg) per day of sodium
- If alcohol is consumed, it should be consumed in moderation - up to one drink per day for women and up to two drinks per day for men - and only by adults of legal drinking age.

Finally, all Americans regardless of age should meet the Physical Activity Guidelines for Americans.

Foods and Food Components to Reduce

High consumptions of certain foods, such as those high in saturated or trans fat, sodium, added sugars, and refined grains may contribute to the increased incidence of chronic disease. Additionally, excessive consumption of these foods...
replaces the intake of more nutrient-dense foods. Table \(\PageIndex{1}\): A Little Less of These, Please

<table>
<thead>
<tr>
<th>Dietary Constituent</th>
<th>Health Implications</th>
<th>Recommendations</th>
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<tbody>
<tr>
<td>Excess sodium</td>
<td>High blood pressure</td>
<td>Limit intake to 2,300 mg daily</td>
</tr>
<tr>
<td>Too much saturated fat</td>
<td>Cardiovascular disease</td>
<td>Limit intake to &lt; 10 percent of total calories</td>
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<tr>
<td>Trans fats</td>
<td>Cardiovascular disease</td>
<td>Minimal, if any consumption</td>
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<tr>
<td>Excess cholesterol</td>
<td>Atherosclerosis</td>
<td>Limit intake to below 300 mg daily</td>
</tr>
<tr>
<td>SoFAS (solid fats and added sugars)</td>
<td>Obesity, Type 2 diabetes</td>
<td>Avoid if possible</td>
</tr>
<tr>
<td>Too much alcohol</td>
<td>Impaired liver function, impaired motor function</td>
<td>No more than one drink per day for women; No more than two drinks per day for men</td>
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The average person consumes 3,400 milligrams of sodium per day, mostly in the form of table salt. The *2010 Dietary Guidelines* recommend that Americans reduce their daily sodium intake to less than 2,300 milligrams. If you are over the age of fifty-one, are African American, or have cardiovascular risk factors, such as high blood pressure or diabetes, sodium intake should be reduced even further to 1,500 milligrams. The *Dietary Guidelines* also recommend that less than 10 percent of calories come from saturated fat, and that fat calories should be obtained by eating foods high in unsaturated fatty acids. Cholesterol intake should be decreased to below 300 milligrams per day and trans fatty acid consumption kept to a bare minimum. The *Dietary Guidelines* stresses the importance of limiting the consumption of foods with refined grains and added sugars, and introduce the new term, SoFAS, which is an acronym for *solid fats and added sugars*, both of which are to be avoided in a healthy diet plan.Nelson, J. and K. Zeratsky. “Dietary Guidelines Connect SoFAS and Weight Gain.” Mayo Clinic, *Nutrition-Wise* (blog). August 25, 2010. www.mayoclinic.com/health/die...elines/MY01417. Moreover, if alcohol is consumed, it should be consumed only in moderation, which for women it is not more than one drink per day and for men is not more than two drinks per day. The macronutrients protein, carbohydrates, and fats contribute considerably to total caloric intake. The IOM has made recommendations for different age groups on the percentage of total calories that should be obtained from each macronutrient class (Table \(\PageIndex{2}\)).

Table \(\PageIndex{2}\): Recommendations for Macronutrient Intake As Percentage of Total Calories

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Protein (%)</th>
<th>Carbohydrates (%)</th>
<th>Fat (%)</th>
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<tbody>
<tr>
<td>Children (1–3)</td>
<td>5–20</td>
<td>45–65</td>
<td>30–40</td>
</tr>
<tr>
<td>Adults (&gt;19)</td>
<td>10–35</td>
<td>45–65</td>
<td>20–35</td>
</tr>
</tbody>
</table>

Source: *2010 Dietary Guidelines.*
Foods and Nutrients to Increase

The typical American diet lacks sufficient amounts of vegetables, fruits, whole grains, and high-calcium foods, causing concern for deficiencies in certain nutrients important for maintaining health. The 2010 Dietary Guidelines provide the following suggestions on food choices to achieve a healthier diet:

1. Eat a variety of vegetables, especially dark green, red, and orange vegetables.
2. Choose at least half of your grains consumed from whole-grain foods.
3. For dairy products, eat the low-fat versions.
4. Don’t get your protein only from red meats; choose instead seafood, poultry, eggs, beans, peas, nuts, seeds, and soy products.
5. Replace butter with oils.
6. Choose foods dense in the nutrients potassium, calcium, and vitamin D.
7. Increase intake of dietary fiber.

Building Healthy Eating Patterns

The 2010 Dietary Guidelines recommend that people make an effort to reduce their caloric consumption, reduce the intake of nutrient-poor foods, and increase the intake of nutrient-dense foods. To accomplish these tasks it is necessary to incorporate moderation and variety. The goal is not only choosing specific foods for your diet, but also the development of a healthy eating pattern. Several studies provide good evidence that certain dietary patterns increase overall health and decrease the risk of chronic disease. The Dietary Approaches to Stop Hypertension trial, or DASH, reports that men and women who consumed more than eight servings per day of fruits and vegetables had lower blood pressures than a control group that consumed under four servings per day of fruits and vegetables. Sacks, F.M, et al., “Effects on Blood Pressure of Reduced Dietary Sodium and the Dietary Approaches to Stop Hypertension (DASH) Diet.” N Engl J Med. 344, no. 1 (January 2001): 3–10. http://www.nejm.org/doi/full/10.1056/NEJM200101043440101. Other studies investigating the benefits of the DASH diet have also found it to be protective against cardiovascular disease and decrease overall mortality. Another well-known diet is the Mediterranean diet. In general, the Mediterranean diet is described as one that emphasizes fruits, vegetables, whole grains, and nuts, and olive oil as a replacement for butter. Few meats and high-fat dairy products are eaten. Observational studies have linked the Mediterranean diet to reduced cardiovascular disease and decreased mortality. Vegetarian diets, which emphasize many of the same foods as the DASH and Mediterranean diets have also been linked to a decrease in incidences of some chronic diseases.
Figure \(\PageIndex{3}\): Fresh vegetables and olive oil are examples of foods emphasized in the DASH and Mediterranean diets. © Thinkstock

Key Takeaways

- US dietary guidelines are based on evolving scientific evidence and are updated every five years. The goals of the 2015-2020 Dietary Guidelines are to prevent nutrient inadequacy, promote health, reduce chronic disease, and decrease the prevalence of overweight and obesity.
- To have a healthy eating pattern, reduce the intake of sodium, saturated and trans fats, cholesterol, added sugars, and refined grains. Increase the consumption of fruits, vegetables, low-fat dairy products, dietary fiber, and oils.
- Healthy eating patterns prevent chronic disease and provide nutrient adequacy.

Discussion Starter

1. Discuss with your classmates suggestions from the 2015-2020 Dietary Guidelines that you should incorporate into your diet. How can you align your personal dietary goals with these recommendations?