

## CHAPTER

## 2

# Designing a Healthful Diet and In Depth: Eating Wisely

## Chapter Summary

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A healthful diet provides the proper combination of energy, nutrients, and fiber and has four characteristics: It is adequate, moderate, balanced, and varied. Many tools can be used to help design a healthful diet. The Nutrition Facts panel on food labels provides valuable information to assist individuals in choosing more healthful foods. The Dietary Guidelines for Americans are a set of principles developed by the U.S. Department of Agriculture (USDA) and the U.S. Department of Health and Human Services (USDHHS) to assist Americans in designing healthful diets and lifestyles. The USDA has also developed MyPlate, its interactive food guidance system designed to help Americans balance their Calories and consume a healthier overall food pattern.

Eating out is challenging due to the large portion sizes and high fat and sodium content of many restaurant meals. However, becoming educated can help in making healthful choices.

Whether out or at home, eating wisely involves understanding what motivates our food choices and the tools we can use to analyze our diets and develop a more healthy relationship with food.

## Learning Objectives

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After studying this chapter, your students should be able to

1. Identify the characteristics of a healthful diet, pp. 40–41.
2. Name five components that must be included on food labels and use the Nutrition Facts panel to determine the nutritional adequacy of a given food, pp. 42–43.
3. Describe the Dietary Guidelines for Americans and discuss how these Guidelines can be used to design a healthful diet, pp. 47–50.
4. Identify the food groups and recommended equivalent amounts included in MyPlate, pp. 51–53.
5. Discuss similarities and differences between serving sizes identified in the USDA Food Patterns, serving sizes on food labels, and portions they serve themselves, pp. 52–56.
6. Explain how MyPlate accommodates ethnic and other dietary preferences, pp. 55, 57.
7. List at least four ways to practice moderation and apply healthful dietary guidelines when eating out, pp. 58–61.

## Chapter Outline

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### I. What Is a Healthful Diet?

- A. A healthful diet is adequate.
  - 1. An adequate diet provides enough of the energy, nutrients, and fiber to maintain a person's health.
- B. A healthful diet is moderate.
  - 1. Moderation refers to eating any foods in moderate amounts.
- C. A healthful diet is balanced.
  - 1. A balanced diet contains the combinations of foods that provide the proper proportions of nutrients.
- D. A healthful diet is varied.
  - 1. Variety refers to eating many different foods from the different food groups on a regular basis.

#### Additional Instructor Tools

PPT slides: 2–6

### II. What Tools Can Help You Design a Healthful Diet?

- A. Food labels contain useful information.
  - 1. Five components must be included on food labels.
    - a. A statement of identity clearly tells us what the product is.
    - b. The net contents statement describes the quantity of food in the entire package.
    - c. The ingredient list shows all ingredients in descending order by weight.
    - d. The name and address of the food manufacturer, packer, or distributor is useful for obtaining more detailed information about a product.
    - e. Nutrition information on the Nutrition Facts panel is the primary tool to assist an individual in choosing healthful foods.
  - 2. Read and use the Nutrition Facts panel on foods.
    - a. Serving size and servings per container are listed.
    - b. Calories and Calories from fat per serving are listed.
    - c. Various nutrients are listed.
    - d. Percent Daily Values (%DV) are included.
    - e. A footnote explains that the %DV is based on a 2,000-calorie diet and that individual needs may vary.
  - 3. Food labels can contain a variety of nutrient claims.
    - a. Structure-function claims such as “builds stronger bones” can be made without approval from the U.S. Food and Drug Administration (USFDA).
- B. Dietary Guidelines for Americans are a set of principles developed by the USDA and USDHHS to assist Americans in designing a healthful diet and lifestyle.
  - 1. Balance Calories to maintain weight.
    - a. Nutrient-dense foods are foods that give the highest level of nutrients for the least amount of energy.
  - 2. Limit sodium, fat, sugars, and alcohol.
    - a. Excessive sodium is linked to high blood pressure in some people and can cause some people to lose calcium from their bones.

- b. Fat is an important part of a healthful diet, but high amounts should be avoided to prevent overweight and obesity.
  - c. Foods that are high in added sugars contribute to overweight and obesity, and they promote tooth decay.
  - d. Consume alcohol sensibly and in moderation if you choose to drink.
- 3. Consume more healthful foods and nutrients.
  - a. Increase your intake of fruits and vegetables.
  - b. At least half of all grain foods consumed should be made from whole grains.
  - c. Choose fat-free or low-fat milk and milk products.
  - d. Choose proteins that are lower in solid fat and Calories; and eat more fish and shellfish, eggs, beans and peas, soy products, and nuts and seeds.
- 4. Follow healthy eating patterns.
  - a. Keep food safe to eat.
- C. The USDA Food Patterns can help you design a healthful diet.
  - 1. MyPlate is an interactive, personalized guide for evaluating your current diet and activity level and planning appropriate changes.
  - 2. MyPlate incorporates many of the features of the Mediterranean diet.
  - 3. The five food groups emphasized in the USDA Food Patterns are grains, vegetables, fruits, dairy, and protein foods.
  - 4. The USDA Food Patterns emphasize the concept of empty Calories, which are from solid fats and/or added sugars that provide few or no nutrients.
  - 5. The USDA Food Patterns also help decide the number and size of servings.
    - a. Ounce-equivalent (oz-equivalent) in MyPlate is a serving size that is 1 ounce, or equivalent to an ounce, for the grains and the protein foods section.
  - 6. MyPlate accommodates ethnic foods and other variations.
  - 7. Other eating plans can also be used to design a healthful diet.
    - a. The exchange system is a diet planning tool in which portions are organized according to the amount of carbohydrate, protein, fat, and Calories in each food.

#### **Additional Instructor Tools**

PPT slides: 7–40

Animation: Reading Labels

**Figures:** 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.7, 2.8, 2.9, 2.10, 2.11

**Tables:** 2.1, 2.2, 2.3

### **III. Can Eating Out Be Part of a Healthful Diet?**

- A. There are hidden costs in eating out.
  - 1. Many restaurants serve large portions.
  - 2. Beverages contribute significantly to the Calorie count of meals.
- B. There is a healthful way to eat out.
  - 1. Strategies include choosing “light” menu items and smaller-portion options, adding salads with low-fat or nonfat dressings, and choosing whole-grain bread.

#### **Additional Instructor Tools**

PPT slides: 41–39

**Table:** 2.4

#### **IV. Nutrition Debate: Will MyPlate Promote America's Health?**

- A.** Some progress has been made in the revised Dietary Guidelines for Americans (DGAs) and MyPlate, but concerns remain.
  - 1. Some experts feel the quality of carbohydrates Americans consume needs more attention and guidance.
  - 2. Some experts are concerned that the recommended intakes for dairy foods may do more harm than good.
  - 3. More targeted advice against consumption of red meat, butter, cheese, and sugar may be needed.
  - 4. MyPlate does not illustrate the benefits of regular physical activity.
- B.** More research is needed on the impact of foods, rather than individual nutrients, on health outcomes.
- C.** Alternatives to MyPlate have been developed, but no studies are yet available comparing their effectiveness.
- D.** The extent to which people will use MyPlate in their daily lives is debatable.

#### **V. In Depth: Eating Wisely**

- A.** What's behind our food choices?
  - 1. Appetite is a psychological desire to consume specific foods.
  - 2. Sensory data plays a role in the stimulation of appetite and satiety.
    - a. Much of our ability to taste foods actually comes from olfaction—our sense of smell.
    - b. Mouthfeel, the tactile sensation of food in the mouth, is also important in food choices.
  - 3. Social, cultural, and emotional cues play a role.
  - 4. Learning also plays a role.
    - a. The culture in which you are raised initially teaches you which plant and animal products are appropriate or desirable to eat.
    - b. We can learn to enjoy new foods at any point in our lives.
    - c. A conditioned taste aversion can develop as a result of a negative experience.
- B.** What tools can help us to eat more wisely?
  - 1. Take advantage of technology to help you analyze your diet.
    - a. One example available to the public is MyPlate SuperTracker.
    - b. Students using this textbook have access to MyDietAnalysis.
    - c. The USDA Nutrient Database for Standard Reference, updated annually, is available on the Web.
  - 2. Apply principles of mindful eating.
    - a. Mindful eating is a nonjudgmental awareness of the emotional and physical sensations one experiences while eating or in a food-related environment.

#### **Additional Instructor Tools**

PPT slides: 44–47

**Figure:** Figure 1

## Key Terms

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adequate diet	healthful diet	olfaction
appetite	mindful eating	ounce-equivalent
balanced diet	moderation	(oz-equivalent)
conditioned taste aversion	mouthfeel	Percent Daily Values
Dietary Guidelines for	MyPlate	(% DV)
Americans	nutrient density	variety
empty Calories	nutrient-dense foods	
exchange system	Nutrition Facts panel	

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## **Lecture Launcher Video Discussion Questions**

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These discussion questions are designed to promote critical thinking after viewing the following ABC News video clips:

**Crackdown on Food Labels: Many Not as “Healthy” as Claimed?** (located in the PowerPoint slides for this chapter and in the IR-DVD folder)

1. Why did the FDA recently crack down on food manufacturers about information on food labels?
2. Why do you think food manufacturers include misleading information on food packaging?
3. What can you do as a consumer to ensure that you are buying healthy packaged foods?

**How Many Servings Are You Eating?** (located in the PowerPoint slides for this chapter and in the IR-DVD folder)

1. Discuss whether or not the government should regulate the sale of large serving sizes at restaurants (such as the size of sugary drinks).
2. Discuss creative ways companies can educate consumers regarding appropriate serving sizes of their food products.
3. In what ways should the FDA be involved in educating consumers about serving size?

**Mediterranean Diet Could Help Reduce Heart Disease** (located in the PowerPoint slides for this chapter and in the IR-DVD folder)

1. What are the characteristics of a Mediterranean diet that can reduce the risk for heart disease by 30%?
2. What dietary recommendations would you give to someone who wants to reduce their risk for heart disease?
3. What methods can be used to increase intake of protein rich foods and healthy fats?

**Menu Calorie Counts: How Accurate Are They?** (located in the PowerPoint slides for this chapter and in the IR-DVD folder)

1. Is the new federal law, which requires posting Calorie counts for foods, beneficial or detrimental for restaurant goers?
2. In what ways is the calorie count advertised misleading for customers?
3. Caloric needs are based on several factors. Does the average person have the knowledge to accurately assess caloric intake needs? What more can be done to educate the public regarding caloric needs?

4. What practical methods can the consumer employ to decrease caloric intake at restaurants?

**Miscounting Calories: Surprising New Diet Food Report** (located in the PowerPoint slides for this chapter and in the IR-DVD folder)

1. What is a common misconception about the number of calories reported on the labels of some popular diet foods?
2. Why is more than one sample of a particular food tested to determine the correct calorie count?
3. Why does the FDA allow a wide range of labeling of calories on prepared foods?

## In-Class Discussion Questions

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1. Examine your diet with regard to the four characteristics of a healthful diet: adequacy, moderation, balance, and variety. Do your dietary choices reflect these characteristics? What changes could you make to incorporate these features more often?
2. Do you use the information on food labels to help you choose the products you buy? If so, what criteria on the food label do you find most useful?
3. Think about three or four foods that you commonly consume. Discuss how you might replace these foods with more nutrient dense alternatives.
4. Discuss the health messages associated with MyPlate. Do you think the messages are clear?
5. What are limitations of MyPlate? Can you suggest how to overcome these limitations?
6. Discuss some of the strategies you can put into practice when eating out that can make your diet more healthful.
7. What is mindful eating? How can mindful eating contribute to a healthful approach to your dietary intake?

## In-Class Activities

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1. Students should use the food intake journal they previously completed to determine whether their intake conforms to the Dietary Guidelines. Students should answer the following questions:
  - a. How many Dietary Guidelines do you meet?
  - b. How might you change your diet or lifestyle to more closely meet the recommendations?
2. Have students bring to class three food products that contain a food label. Instruct them to examine and discuss the ingredients list and the Nutrition Facts panel in small groups. Have them answer the following questions for each label:
  - a. What is the ingredient present in the largest amount?
  - b. What is the serving size for the product?
  - c. Is the stated serving size the amount you would normally eat?
  - d. What is the number of calories per serving?
  - e. What is the amount of fat (in grams) per serving?

- f. For each food product, discuss whether this would be considered a nutrient-dense food. Students should give reasons for their answer.
3. Have students visit a restaurant that provides nutrition facts for its meals. As an alternative, this information can be accessed online for many restaurants. Students should try to plan a healthful meal from the restaurant's menu. Discussion in class can address whether or not it was possible to find healthy options. Students should also state if they would order the healthy option if they were eating at this restaurant. Why or why not?
4. Have students work in small groups to demonstrate the connections among taste, smell, and food texture. Bring small samples of various foods to class. Each student in the group can take a turn tasting a food item using no other senses. To do this, the student taster should close his or her eyes and pinch nostrils closed. Another student in the group should gently place the food on the taster's tongue. The taster should try to identify the food without chewing or moving the food in the mouth. The taster should then chew the food to see if that aids in identification. Finally, the taster can un-pinch the nose to see if that helps to identify the food. Some food suggestions include small pieces of fruit or vegetables, onion, nuts, or chocolate. Important notes:
  - a. Make sure you check for any students with food allergies before beginning this activity.
  - b. Make sure you are working in a clean environment.
  - c. Encourage students to wear sterile gloves when handling the food items.

## **MyDietAnalysis Activity**

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1. Using the nutritional assessment previously completed, students should note the information provided by their diet analysis software and answer the following questions:
  - a. Do your intakes meet recommendations for each food group?
  - b. What food groups are you high in?
  - c. What food groups are you low in?
  - d. What changes can you make in your diet to more closely meet the recommendations of MyPlate?

## **Web Resources**

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### **Main Chapter**

#### **[www.eatright.org](http://www.eatright.org)**

Academy of Nutrition and Dietetics

Visit the food and nutrition information section of this Website for additional resources to help you achieve a healthy lifestyle.

#### **[www.diabetes.org](http://www.diabetes.org)**

American Diabetes Association

Find out more about the nutritional needs of people living with diabetes as well as meal-planning exchange lists.

#### **[www.hsph.harvard.edu](http://www.hsph.harvard.edu)**

Harvard School of Public Health

Search for the "Nutrition Source" on this site to learn more about the Healthy Eating Plate, an alternative to the USDA MyPlate.

**www.nhlbi.nih.gov**

National Heart, Lung, and Blood Institute

Click on “Interactive Tools and Resources,” and then find “Portion Distortion Quiz” under “Health Assessment Tools.” Use this interactive resource to find out how changing portion sizes influences body weight.

**www.oldwayspt.org**

Oldways Preservation Trust

Find different variations of ethnic and cultural food pyramids.

**www.thepowerplate.org**

Physicians Committee for Responsible Medicine: The Power Plate

Visit this site to view the Power Plate, a vegetarian alternative to the USDA MyPlate.

**www.fda.gov**

U.S. Food and Drug Administration (FDA)

Learn more about the government agency that regulates our food and first established regulations for nutrition information on food labels.

**www.cnpp.usda.gov**

USDA Center for Nutrition Policy and Promotion

Use the Dietary Guidelines for Americans to make changes in your food choices and physical activity habits to help reduce your risk for chronic disease.

**www.chooseMyPlate.gov**

USDA MyPlate Home Page

Use the SuperTracker on this Website to assess the overall quality of your diet and level of physical activity based on the USDA MyPlate.

## **In Depth: Eating Wisely**

**www.eatright.org**

Academy of Nutrition and Dietetics

Explore a range of tips to help you eat more healthfully during holidays.

**www.thecenterformindfuleating.org**

Center for Mindful Eating

Learn more about the principles, practices, and potential benefits of mindful eating.

**www.chooseMyPlate.gov**

USDA MyPlate Home Page

Use the SuperTracker tool to develop a personalized food and physical activity plan, analyze your current nutrient intake, and get tips to support healthy food choices. Search on “SuperTracker” once you get to the home page.

**www.usda.gov**

USDA Nutrient Data

Search for “Nutrient Data” on this site for the link to the Nutrient Data Laboratory and USDA National Nutrient Database for Standard Reference, where you can examine the nutrient content of over 8,000 foods.



## **Digital Transparency Masters**

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To enhance instruction in your class, we have provided transparency masters of all the key figures in PDF format, available on the Instructor Resource DVD for this chapter. This selection of images and tables can be downloaded and printed to create transparency acetates.