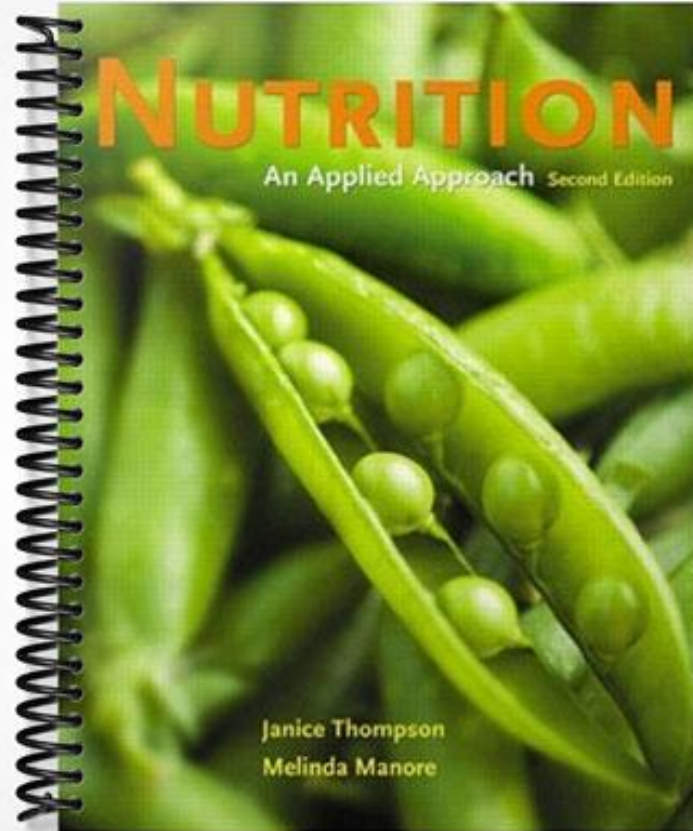


**SOLUTIONS MANUAL**



**NUTRITION**

An Applied Approach *Second Edition*

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## CHAPTER 2

### **Designing a Healthful Diet**

#### **Chapter Summary**

A healthful diet provides the proper combination of energy, nutrients, and fiber. A healthful diet has four characteristics: it is adequate, moderate, balanced, and varied. There are many tools that 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 a pyramid-based food guidance system called MyPyramid, which can be used to design a healthful diet that meets the goals of adequacy, moderation, balance, variety, and nutrient density. Although there is no single diet that is right for all individuals, there are a few that seem to improve health for a majority of people. The DASH diet and the exchange system are two such plans. Eating out is challenging due to the large portion sizes and high fat and sodium content of many restaurant meals. However, healthful choices can be made by becoming educated.

The Nutrition Debate addresses the question: Will revising the USDA Pyramid help us find the perfect diet?

#### **Chapter Objectives**

*After reading this chapter, the student will be able to:*

1. Identify the characteristics of a healthful diet, pp. 38–40
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. 40–43
3. Describe the Dietary Guidelines for Americans, and discuss how these guidelines can be used to design a healthful diet, pp. 48–51
4. Identify the food groups, number of servings, and serving sizes included in MyPyramid, pp. 52–55
5. Describe how MyPyramid can be used to design a healthful diet, pp. 60–62

6. Discuss the characteristics of the DASH diet plan, pp. 67–69
7. Describe the components of the Exchange System, pp. 69–71
8. List at least four ways to practice moderation and apply healthful dietary guidelines when eating out, pp. 72–73

## **Key Terms**

### **Chapter Outline**

- I. What Is a Healthful Diet?
  - A. A healthful diet is adequate, moderate, balanced, and varied.
- II. What Tools Can Help Me Design a Healthful Diet?
  - A. Five components must be included on food labels.
    1. A statement of identity tells us what the product is.
    2. The net contents of the package describes the quantity of food in the entire package.
    3. The ingredient list shows of all ingredients in descending order by weight.
    4. The name and address of the food manufacturer, packer, or distributor is useful to get more detailed information about a product.
    5. Nutrition information on the Nutrition Facts Panel is the primary tool to assist an individual in choosing healthful 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 are included.
      - e. A footnote explains that the %DV is based on a 2,000 calorie diet and that individual needs may vary.
  - 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. Consume adequate nutrients to promote health while staying within your energy needs.
  2. Weight management is important to decrease risk of chronic disease.
  3. Engage in physical activity to promote health, psychological well-being, and a healthy body weight.
  4. Several food groups should be encouraged.
  5. Fat is an important part of a healthful diet.
  6. Moderate intake of foods high in sugar and starch.
  7. Consume less than 2,300 mg of sodium per day and consume potassium-rich foods such as fruits and vegetables.
  8. Drink sensibly and in moderation if you choose to drink.
  9. Keep food safe to eat.
- C. MyPyramid, the 2005 revision of the Food Guide Pyramid, is an interactive, personalized guide that people can access on the Internet to assess their current diet and physical activity levels.
1. The activity component of MyPyramid is represented by the steps and the person climbing them.
  2. Moderation is represented by the narrowing of each food group from bottom to top.
  3. Personalization is represented by the person on the steps, the slogan (“Steps to a Healthier You”), and the website (MyPyramid.gov).
  4. Proportionality is illustrated through the use of differing widths of the food group bands.
  5. Variety is represented by six color-coded bands that represent five categories of food and oils that should be eaten each day.
  6. Gradual improvement is encouraged by the slogan “Steps to Healthier You.”
  7. Discretionary calories represent the extra amount of energy that can be consumed after all essential needs have been met.

8. It is important to understand the size of a serving in MyPyramid.
  9. It is easy to follow the MyPyramid system and still select foods to meet specific ethnic, religious, or other lifestyle preferences.
  10. MyPyramid can be used to design a plan with the four key characteristics of a healthful diet.
    - a. MyPyramid helps to promote adequacy by suggesting optimal calorie intake and servings in each food category.
    - b. MyPyramid helps to promote moderation by recommending certain amounts to consume each day.
    - c. MyPyramid helps to promote balance by recommending the appropriate number of servings from each food group.
    - d. MyPyramid helps to promote variety by encouraging choices from each food category.
    - e. As a general guideline, choose foods with a high nutrient density.
  11. There are some limitations to MyPyramid.
    - a. Serving sizes are relatively small and do not always coincide with the standard amounts of food we buy, prepare, and serve.
    - b. Low-fat and low-calorie food choices are not clearly defined in each food category.
- D. Some diet plans can improve health.
1. The DASH diet was developed in response to research into hypertension and suggests 8 to 10 servings of fruits and vegetables daily and a sodium intake of about 3 grams per day.
  2. The Exchange System is another tool that can be used to plan a healthful diet.
    - a. This system was originally developed for diabetics.
    - b. This system has also been used successfully in weight loss programs.

- c. Exchanges are organized according to the amount of carbohydrate, protein, fat, and calories in each food.
3. There are many other diet plans available that may or may not be backed by research.

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

#### A. There are hidden costs to eating out.

- 1. Many restaurants serve large portions.
- 2. Many meals are high in sodium and fat, as well as calories.

#### B. There is a healthful way to eat out.

- 1. Choose smaller portions.
- 2. Avoid fried foods.
- 3. Choose items with steamed vegetables.
- 4. Avoid energy-rich appetizers and desserts.

### Activities

- 1. Students should use the food intake journal they previously completed to determine whether or not their intake conforms to the Dietary Guidelines. Refer to the inside front cover of the text for a summary of the 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 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 an "international feast" with groups of students using the variations of the previous USDA Food Guide Pyramid to plan the meals. Variations discussed in the text include the Vegetarian Diet Pyramid, African American Diet Pyramid, Latin American Diet Pyramid, Asian Diet Pyramid, and Mediterranean Diet Pyramid.

### **MyDietAnalysis Activity**

5. Using the nutritional assessment previously completed, students should note the MyPyramid 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 MyPyramid?

### **Nutrition Debate Activity**

6. MyPyramid is the most recent attempt by the USDA to promote a healthy diet and lifestyle. Although it has addressed some criticisms of the previous Food Guide Pyramid, experts have already expressed concerns about this newest version, as well. Instruct students to read the *Nutrition Debate* carefully and make note of the improvements and the concerns surrounding MyPyramid. Then, working in small groups, ask students to design a food guide of their own that they believe can improve on the current version. Have each group present their food guide to the class.

### **Nutrition Video Discussion Questions**

*These discussion questions are designed to promote critical thinking after viewing the following ABC News video clip(s).*

### **Food Labels and Portion Size**

1. What do food labels have to offer in diet planning?
2. Do food labels accurately reflect the portions most people eat?
3. How could food labels be revised to be more useful to the consumer?

### **Diet Meals**

1. Would you choose a meal specifically because it is identified as a “healthy” choice? Why or why not?
2. Are the meals identified in some chain restaurants as healthier choices actually healthy? Explain.
3. What questions are reasonable to ask to find out if a meal is actually healthy?
4. Do you think all restaurants should be required to list nutrition facts on their menus? Why or why not?

adequate diet, p. 38

balanced diet, p. 39

DASH diet, p. 67

Dietary Guidelines for Americans, p. 48

discretionary calories, p. 54

exchange system, p. 69

healthful diet, p. 38

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moderation, p. 39

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ounce-equivalent (oz-equivalent), p. 54

percent Daily Values (%DV), p. 42

variety, p. 39



