

CHAPTER 5

Nutrition and Your Health

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“ I am usually **hungry** by the end of school. I have **soccer practice** after school, so I just grab something from the **vending machine**.

The snack that I buy doesn't usually last very long, and I'm starving by the end of practice. What can I do to make sure that I'm not hungry all the time? ”

Health IQ

PRE-READING

Answer the multiple-choice questions to find out what you already know about nutrition. When you've finished this chapter, you'll have the opportunity to change your answers based on what you've learned.

- Your body needs energy to
 - grow.
 - repair tissues.
 - fight germs.
 - All of the above
- The process in which your body breaks down food into a form your body can use is called
 - hunger.
 - digestion.
 - metabolism.
 - indigestion.
- The process in which your body changes nutrients into usable energy is called
 - hunger.
 - digestion.
 - metabolism.
 - sleeping.
- Tofu and _____ are good sources of protein.
 - fruit
 - vegetables
 - peanut butter
 - water
- Eating a snack after school
 - is not recommended.
 - can be healthy if you choose the right foods.
 - will increase your risk of developing heart disease.
 - None of the above
- The Nutrition Facts label states
 - the number of Calories in each serving of food.
 - the number of servings in a container of food.
 - the amount of nutrients in each serving of food.
 - All of the above

ANSWERS: 1. d; 2. b; 3. c; 4. c; 5. b; 6. d

Lesson 1

Nutrition and Diet

Josh's grandfather recently survived a heart attack. Now, all of Josh's family members are talking about eating better and improving their health. Josh wonders how much food can really affect someone's health.

Like Josh, many people may be confused about how food can affect a person's overall health. After all, you need to eat to stay alive, right? The truth is that food contains substances that your body needs to stay healthy. *Nutrition* is the study of how our bodies use the substances in food to maintain our health.

What You'll Do

- Explain how nutrition affects your overall health.
- Explain how your body uses food.
- Identify six factors that affect your food choices.
- Explain how your feelings may affect your food choices.

Terms to Learn

- digestion
- nutrient
- diet

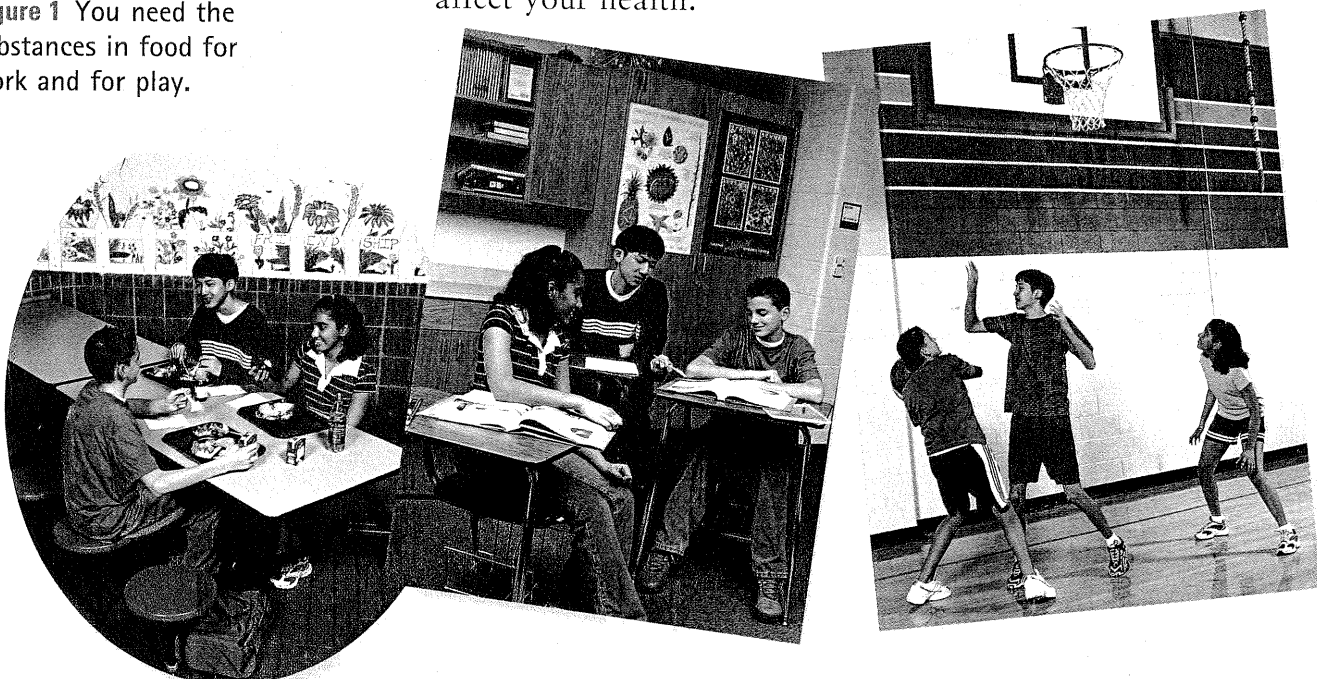
Start Off Write

What does it mean to practice good nutrition?

Nutrition and Your Health

Your nutrition affects many of the things you do every day. The substances in food give you the energy you need for learning, studying, staying active, and hanging out with your friends. Practicing good nutrition means eating foods that are good for you and eating them in the right amounts. Eating too little food can lead to weight loss, poor growth, and if severe enough, death. But eating too much food can also cause poor health. Eating too much food can cause you to become *overweight* because of excess body fat. Being overweight can lead to *obesity* (weighing more than 20 percent above your recommended weight range) and can increase your risk of many diseases and disorders. So it's very clear—food really can affect your health.

Figure 1 You need the substances in food for work and for play.



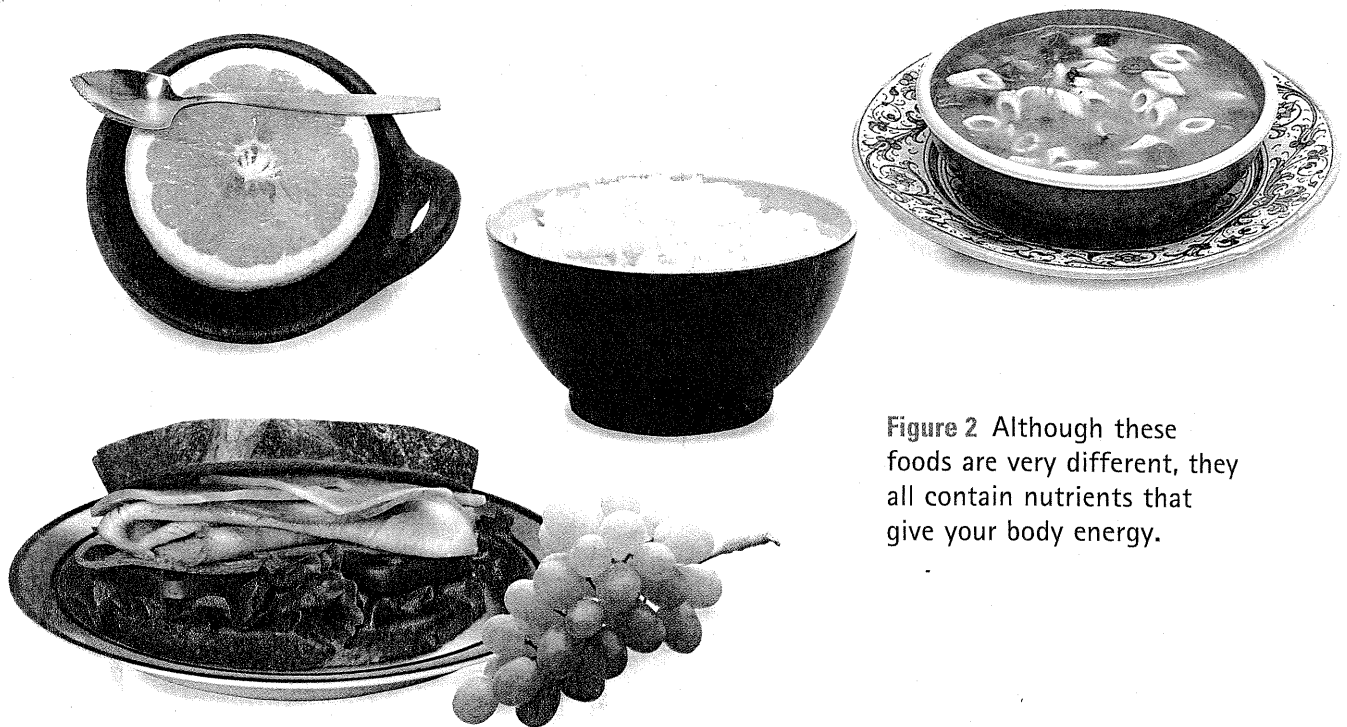


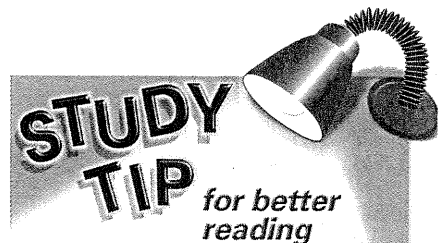
Figure 2 Although these foods are very different, they all contain nutrients that give your body energy.

How Your Body Uses Food

Your body uses food for energy. However, your body can't use food directly for energy. The food must be broken down into a form that your body can use. **Digestion** is the process in which food is broken down into a form your body can use.

Digestion begins when you chew your food. After the food you eat is chewed and swallowed, it passes into the stomach. In the stomach, the food is broken down by a strong acid and other substances. This step turns your food into a thick liquid. The liquid passes into the small intestine, where it is broken down further into nutrients (NOO tree uhnts). **Nutrients** are the substances found in food that your body needs to function properly. The nutrients are absorbed into your blood and delivered to tissues throughout your body. Your body turns the nutrients into usable energy through a process called *metabolism*.

Your body can make some nutrients. But most nutrients come from the foods you eat. For example, your body needs nutrients to fight germs that cause sickness. One way you can get these nutrients is by drinking orange juice. Because not every food has every nutrient, eating a variety of foods is important. This way, you will get all the nutrients you need.



Reviewing Information

Make up a story to help you remember how your body breaks down and uses food.

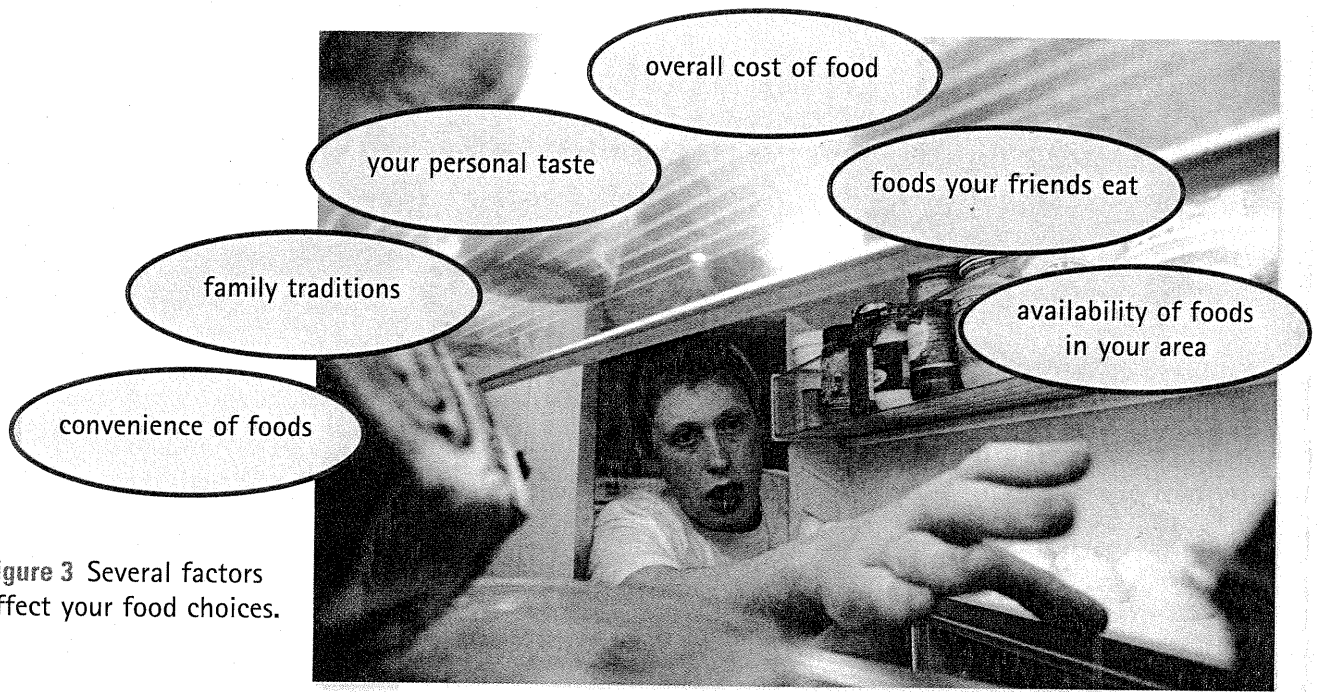


Figure 3 Several factors affect your food choices.

Your Diet and Food Choices

Most people think of a diet as a way of eating to lose weight. Actually, a **diet** is a pattern of eating. Your pattern of eating includes what you eat, how much you eat, and how often you eat. Because your diet includes what kinds of foods you eat, it is affected by your food choices. Many factors influence both your diet and your food choices.

Your personal taste has a lot to do with what you decide to eat. You may eat some foods because they are convenient. For example, you may choose to eat a fast-food burger one night. It is convenient because you can eat it in the car on the way to soccer practice. Often, the cost of food determines the kinds of foods your family buys. Your family traditions or your cultural background may affect the types of foods you decide to eat. You may eat certain foods because your friends like them and because you have come to like these foods, too. Finally, you may eat certain foods because they are available in your local area. The following list shows you six factors that affect your food choices:

- your personal taste
- family traditions
- convenience of foods
- overall cost of food
- foods your friends eat
- availability of foods in your area

SOCIAL STUDIES ACTIVITY

Interview an elderly friend or relative about what types of food he or she ate while growing up. After your interview, create a poster that compares the foods that your friend or relative ate with the foods that you eat today. Which foods are the same? Which foods are different?

Food and Feelings

Most people know when their bodies need nutrients because they get hungry. Feeling hungry is the way your body tells you that it needs more food for energy. Sometimes, people eat even though they are not hungry.

Often, people's feelings can affect how and what they choose to eat. Some people may eat when they are sad or upset. Others may eat when they are happy or want to celebrate.

Some people may skip meals if they are nervous. Others may like to eat when they are nervous. Many people like to eat when they are with friends in a social setting. Have you ever gone to a party and eaten snacks even though you had already eaten dinner?

If a person's feelings affect his or her food choices once in a while, it is not a bad thing. However, some people's feelings may affect their food choices all the time. This behavior can be unhealthy because a person may want to eat every time he or she has a particular emotion. Also, the person may choose to eat foods that are unhealthy. By understanding what feelings affect your food choices, you can avoid eating unhealthy foods. You can also avoid eating when you know you are not hungry.

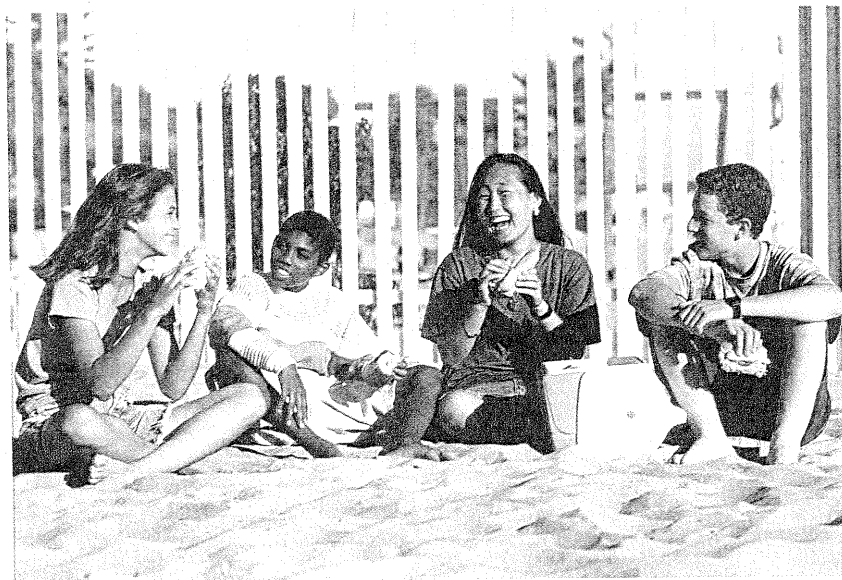


Figure 4 How do your feelings affect what you eat?

Health Journal

Write down everything you eat and drink for one day. Next to each entry, describe how you are feeling when you eat. The next day, take a look at your list. Do you eat only when you are hungry?

Lesson Review

Using Vocabulary

1. Use each of the following terms in a separate sentence: *nutrient*, *diet*, and *digestion*.

Understanding Concepts

2. List six factors that influence your food choices.
3. Explain how your nutrition affects your overall health.
4. How does your body use the food you eat?

Critical Thinking

5. **Making Good Decisions** Your best friend eats large servings of ice cream when she is upset. Lately, she has been eating a big bowl of ice cream every day. You know this behavior may be unhealthy for her. Should you say something to her? If so, what would you tell her?

HEALTH
LINKS...

www.scilinks.org/health

Topic: Nutrition

HealthLinks code: HD91056

Lesson 2

The Six Classes of Essential Nutrients

What You'll Do

- List the six classes of essential nutrients.
- Explain what each class of essential nutrient does for your body.
- Identify foods that are good sources of the essential nutrients.

Terms to Learn

- carbohydrate
- fat
- protein
- vitamin
- mineral

Start Off Write

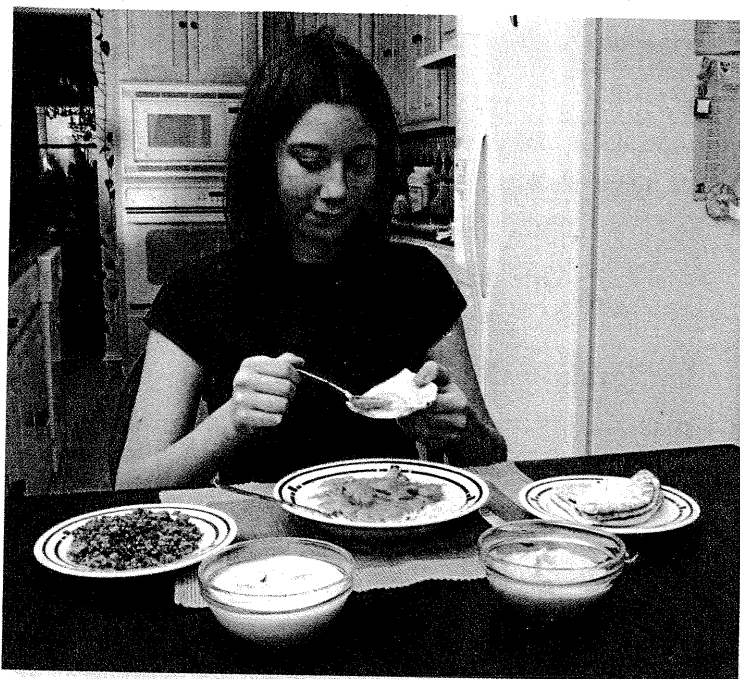
What is the difference between vitamins and minerals?

The nutrients in food help your body function properly. But what are these nutrients, and where do you get them? Read on to find out!

The Nutrients You Need

Your body can make some of the nutrients it needs. However most of the nutrients your body needs come from the food you eat. The nutrients that you get from food are called the *essential nutrients*. The six classes of essential nutrients are carbohydrates (KAHR boh HIE drayts), fats, proteins (PROH TEENZ), vitamins (VIET uh minz), minerals (MIN uhr uhlz), and water. Each of these nutrient classes play a special role in your body. Your body uses carbohydrates, fats, and proteins as direct sources of energy. Vitamins and minerals control many body functions. They also help your body use the energy from the other nutrients. Your body uses water to control your body temperature. Water is also used to transport other nutrients throughout your body. The essential nutrients are necessary for your body to function properly. So, eating a variety of foods that contain these nutrients is very important.

Figure 5 Every food contains different nutrients. It's important to eat a variety of foods so that you get all the nutrients that you need.



Carbohydrates

Carbohydrates provide energy for your body. A **carbohydrate** consists of one sugar or multiple sugars chained together. Simple carbohydrates can be just one sugar or two sugars joined together. Simple carbohydrates are found in sweet foods such as table sugar, honey, and fruits. Complex carbohydrates consist of three or more sugars joined together. *Starches* are complex carbohydrates found in grains and vegetables. Your body breaks down starches into simple carbohydrates. *Fiber* is a complex carbohydrate that cannot be digested. Foods that are high in fiber are part of a healthy diet. Good sources of fiber include whole-grain foods, such as brown rice and whole-wheat bread, and many fruits and vegetables.

Fats

Believe it or not, it's important to have a small amount of fat in your diet. **Fats** are nutrients that store energy, cushion your body, and protect nerves. Fats also help your body produce hormones. Solid fats are found in foods such as butter and meat. Liquid fats are found in cooking oils and salad dressings. Fats make some foods taste and smell good. Fried foods and desserts taste good in part because they contain a large amount of fat. Fats contain more Calories than any other nutrient does. If you eat too many foods that are high in fat, you may eat more Calories than you need. The unused Calories will be stored as fat in your body. Your body needs only a small amount of fat to function properly. When there is too much fat in your body, your risk of getting diabetes and heart disease is higher.

Proteins

You can think of proteins as building blocks for your body. **Proteins** are nutrients that are used for building, maintaining, and repairing tissues and cells. Proteins help the body break down and use nutrients for energy. Proteins also help protect the body from germs that cause sickness. Meat, poultry, and fish are good sources of proteins. Milk and cheese are also good sources of proteins. You can also get proteins from beans, nuts, tofu, eggs, whole grains, and vegetables.

carbohydrate

protein
and fat

carbohydrate

protein and fat

protein and fat

carbohydrate

Figure 6 Most foods contain more than one class of nutrient, but they are often a good source of only one class.

Hands-on ACTIVITY

BROWN BAG TEST

1. Cut a brown paper bag into small squares.
2. Gather a variety of foods, such as cookies, fruit, chips, chocolate, and popcorn. Place a piece of each type of food on a different square.
3. Leave the food on the squares overnight.

Analysis

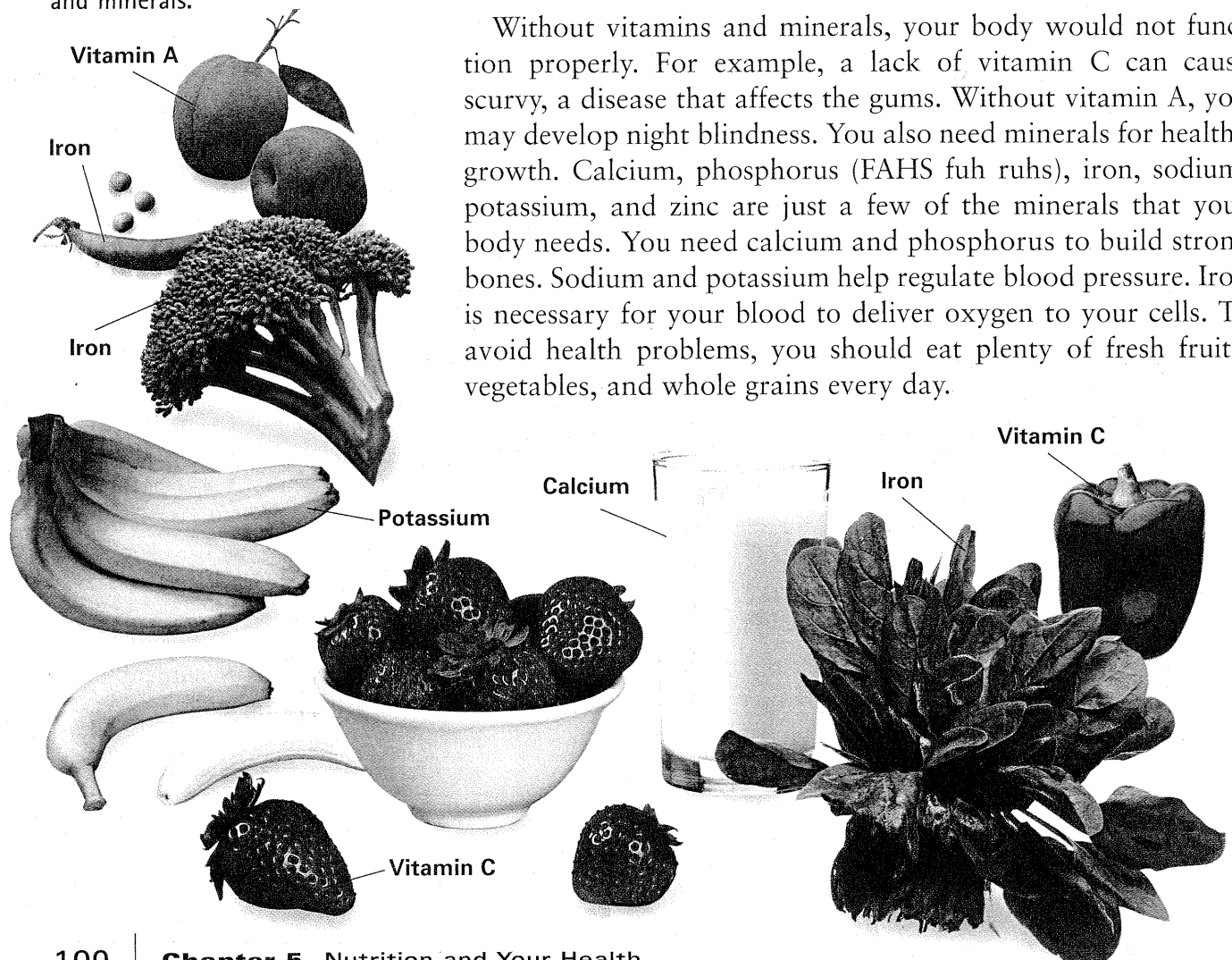
1. Remove each piece of food from its square. How much oil did each food leave behind?
2. Which foods had the most oil? Which foods had the least?

Vitamins and Minerals

Although you need only small amounts of vitamins and minerals, they are very important to your health. **Vitamins** are organic compounds that control many body functions. **Minerals** are elements that are essential for good health. Vitamins and minerals are found in fresh fruits, vegetables, nuts, and dairy products. The figure below shows you foods that are good sources of some vitamins and minerals.

Without vitamins and minerals, your body would not function properly. For example, a lack of vitamin C can cause scurvy, a disease that affects the gums. Without vitamin A, you may develop night blindness. You also need minerals for healthy growth. Calcium, phosphorus (FAHS fuh ruhs), iron, sodium, potassium, and zinc are just a few of the minerals that your body needs. You need calcium and phosphorus to build strong bones. Sodium and potassium help regulate blood pressure. Iron is necessary for your blood to deliver oxygen to your cells. To avoid health problems, you should eat plenty of fresh fruits, vegetables, and whole grains every day.

Figure 7 Fruits and vegetables are great sources of vitamins and minerals.



Water

Water is a very important nutrient. Your body does not get energy from water, but water is needed for most of your body functions. A person can live for several weeks without food. However, without water, the person will die within a few days. The reason is that your body uses water to transport food and nutrients. Water is used to fill the cells and the spaces between the cells in your body. Your body uses water to fill spaces in your joints, and water in your spine is used to absorb shock. Your body uses water to keep your mouth and eyes moist. Your body also uses water to wash away the waste products that your body produces.

Water regulates your body temperature. When your body gets too hot, you sweat. As the water evaporates, you feel cooler and your body temperature returns to normal. This keeps you from overheating. If you don't drink enough water each day, you may *dehydrate*, or dry out. If you become dehydrated, your body will not function properly. As a result, you may faint. In extreme cases, you may die. You must drink plenty of water so that you don't dry out.

Drinking water is the best way to replace lost water. But you can get water from other food and drinks. Good sources of water are fruit juices, fruits, vegetables, soups, stews, and milk. A good rule of thumb is to drink 8 to 10 glasses of water every day. If you play sports, you should drink even more.

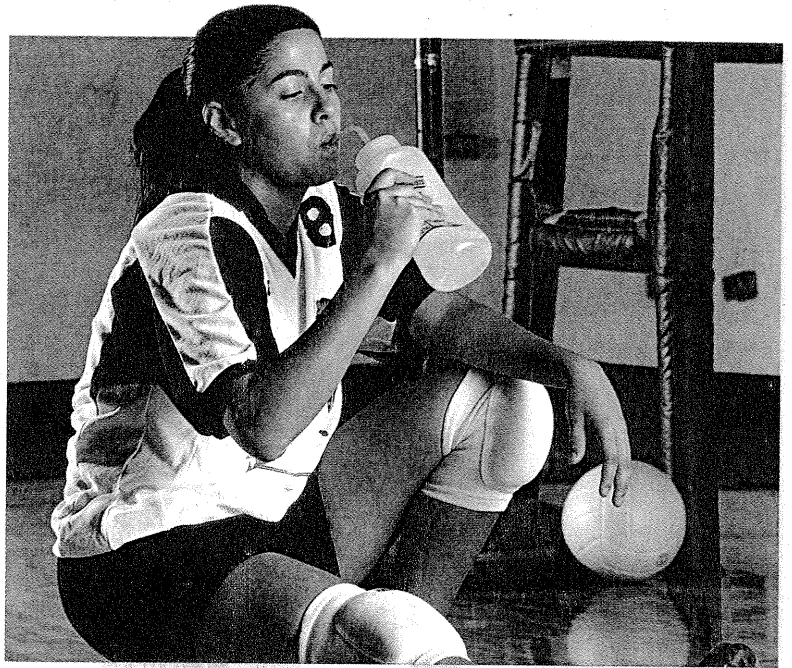


Figure 8 Drinking water is important, especially while you are being physically active.

Lesson Review

Using Vocabulary

1. What are carbohydrates?
2. What are vitamins?

Understanding Concepts

3. List the six classes of essential nutrients. What does each nutrient class do for your body?

4. List three foods that are good sources of protein.

Critical Thinking

5. **Analyzing Processes** Your friend asks you to go ride bikes. It is a very hot day. What will happen if you don't drink enough water?

HEALTH
LINKS.

www.scilinks.org/health

Topic: Nutrients

HealthLinks code: HD91055

Lesson 3

Balancing Your Diet

What You'll Do

- Describe the Dietary Guidelines for Americans.
- Describe how to use the MyPyramid food guidance system.
- Explain how to read a Nutrition Facts label.
- Explain the difference between a serving and a portion.

Terms to Learn

- Dietary Guidelines for Americans
- MyPyramid
- Nutrition Facts label

Start Off Write

Why is eating a balanced diet important?

You know that your body needs the nutrients in food to stay healthy. However, you may not know which foods to eat or how much of them to eat to get all the nutrients you need.

Fortunately, three tools have been developed by nutrition scientists and public health agencies to help you make healthy food choices. These tools include the Dietary Guidelines for Americans, the MyPyramid food guidance system, and the Nutrition Facts label.

The Dietary Guidelines for Americans

The Dietary Guidelines for Americans are designed to help Americans get more nutrients without extra Calories. They recommend that Americans eat more fruits, vegetables, whole grains, low-fat milk products, fish, beans, peas, nuts, and seeds. The Dietary Guidelines for Americans also recommend minimizing the intake of saturated fat, *trans* fat, cholesterol, salt, and added sugar. These food items can contribute to disease risk. And because being healthy isn't just about making healthy food choices, the guidelines recommend that Americans engage in at least 60 minutes of physical activity every day to help maintain a healthy weight and reduce the risk of chronic disease. The table below provides more information about these guidelines.

TABLE 1 The Dietary Guidelines for Americans

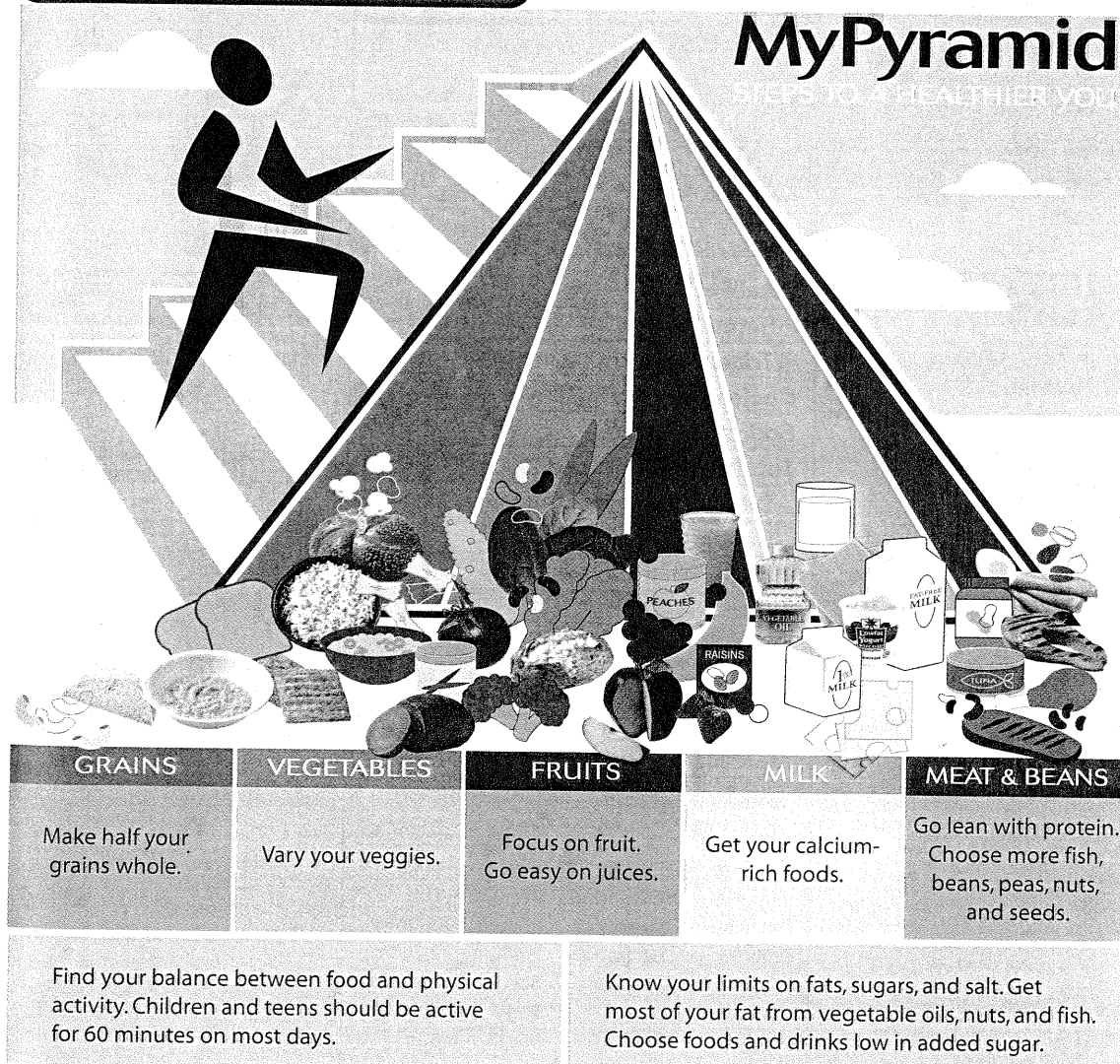
Choose healthy, nutritious food	Choose more whole grains, fruits, vegetables, and low-fat milk and get your protein from a variety of sources such as lean meats, fish, nuts, seeds, and legumes. Eat foods that are low in Calories but are rich in important nutrients.
Stay Fit	Aim to stay at a healthy weight by limiting high-Calorie foods and by being physically active every day.
Limit food items that increase disease risk	Choose foods that are low in salt, sugar, saturated fat and <i>trans</i> fat.

MyPyramid: Steps to a Healthier You

To build a healthy diet, you must be able to choose foods that give you enough of the proper nutrients. The **MyPyramid** food guidance system is a tool that helps you understand how much of each type of food you should eat every day. The MyPyramid symbol, shown below, is made up of six colored stripes. Five of these stripes represent five food groups. (The sixth stripe represents oils, which are also part of a healthy diet.) A food group is made up of foods that contain similar nutrients. The width of each stripe represents the relative proportion of your diet that should be made up of foods from that group. The groups with the widest stripes are grains, vegetables, fruit, and milk. Each person needs a different amount of food from each group every day. The amount of food needed by a person depends on his or her age, sex, and level of daily physical activity. The person climbing the steps of the MyPyramid symbol shows that being active every day is important for good health.

When it comes to health, one size doesn't fit all! The United States Department of Agriculture named this food guidance system *MyPyramid* in order to emphasize that each person's nutrition needs are different. To find out MyPyramid's recommendations for you based on your age, sex, and daily activity level, visit go.hrw.com and type in the keyword **HOLT PYRAMID**.

Figure 9 The MyPyramid Symbol



Brain Food



Many teens in the United States do not get enough calcium or iron in their daily diet. They also do not get enough of vitamins A and C. Drinking low-fat milk and eating leafy green vegetables and fresh fruit will help you get these nutrients.

The Nutrition Facts Label

A useful tool for finding out what nutrients are in a food is the Nutrition Facts label. Found on the outside packages of food, the **Nutrition Facts label** states the number of servings in the container, the number of Calories in each serving, and the quantity of nutrients in each serving. The Daily Values section shows what percentage of your daily need for each nutrient is met by one serving of the food. For example, the chicken soup below meets 15 percent of your daily need for vitamin A. You can tell whether a food is high or low in a nutrient by looking at the percentage in the Daily Values section. If the percentage is 5 percent or less, the food is low in that nutrient. If the percentage is 20 percent or more, the food is high in that nutrient.

Figure 10 The Nutrition Facts Label

Serving information		Amount per Serving		Prepared
Serving Size 1/2 cup (120 ml)		Amount per Serving		Prepared
Servings per Container 2.5		Calories		70
Number of Calories per serving		Calories from Fat		25
		% Daily Value		
		Total Fat 2.5g		4%
		Saturated Fat 1g		5%
		Trans Fat 0g		
		Cholesterol 15mg		5%
		Sodium 960mg		40%
		Total Carbohydrate 8g		3%
		Dietary Fiber less than 1g		4%
		Sugars 1g		
		Protein 3g		
		Vitamin A		15%
		Vitamin C		0%
		Calcium		0%
		Iron		4%
*Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs:				
	Calories	2,000	2,500	
Total Fat	Less than	65g	80g	
Sat Fat	Less than	20g	25g	
Cholesterol	Less than	300mg	300mg	
Sodium	Less than	2,400mg	2,400mg	
Total Carbohydrate		300g	375g	
Dietary Fiber		25g	30g	
Protein		50g	60g	

What Is a Serving Size?

A serving size is a standard amount of food that allows foods to be compared with one another. The Nutrition Facts label shows you information about the nutrients in one serving of a packaged food. One serving of a fluid, such as fruit juice, is usually equal to one cup. Keep in mind that serving sizes for a food are not always the same, especially for packaged foods. Many packaged foods contain more than one serving. Also, remember that how much you actually eat is very important; the number of servings that you eat depends on you.

What Is a Portion?

A *portion* of food is the amount of food you want to eat. Often, a portion is not the same as a serving. For example, imagine you are going to eat a can of soup. The Nutrition Facts label states that the can of soup contains two servings. If you eat the whole can of soup, you would be eating two servings and twice the amount of nutrients found in one serving. Our portion sizes depend on how much we want to eat. It is important to note that most restaurants provide portions that are larger than one serving. For instance, in some restaurants, one hamburger (or one portion) could supply more than your daily recommended amount of meat. Be sure to use the Nutrition Facts label and the MyPyramid food guidance system to know how much food from each food group you need. Then, you can choose your portions wisely.

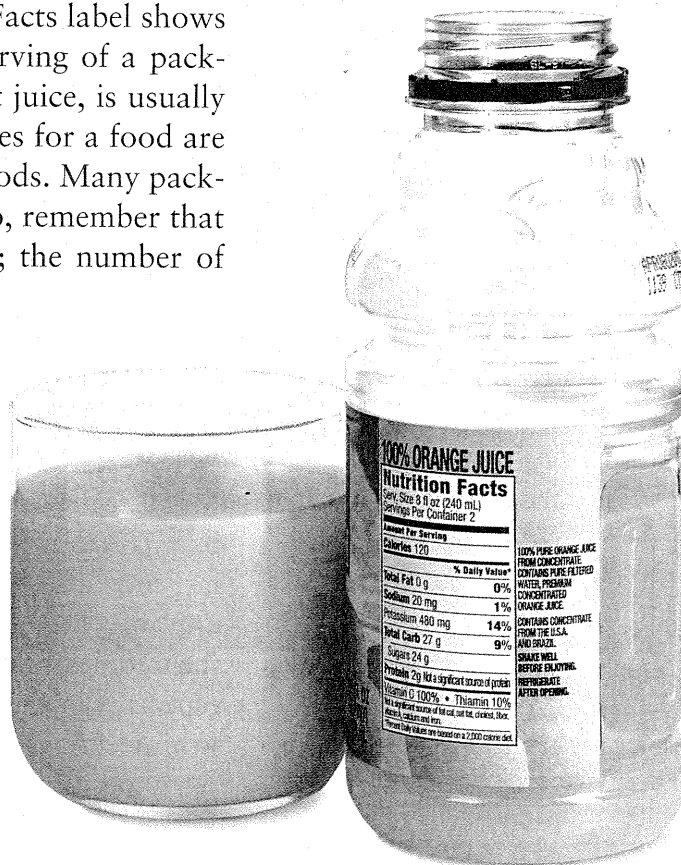


Figure 11 The glass you see here contains 1 cup of juice. How does that amount compare with the amount in the bottle?

Lesson Review

Using Vocabulary

1. What are the Dietary Guidelines for Americans?
2. What is MyPyramid?

Understanding Concepts

3. What are the five food groups represented by the five widest stripes on the MyPyramid symbol?

Critical Thinking

4. **Analyzing Ideas** Describe how you would use the Nutrition Facts label to eat foods that are low in fat.
5. **Making Inferences** Suppose you are keeping track of how many Calories you eat. Why is it important to pay attention to the portion size of each food you eat?

HEALTH LINKSSM
www.scilinks.org/health
Topic: Food Pyramids
HealthLinks code: HD90598

Lesson 4

Building Healthful Eating Habits

What You'll Do

- Explain why eating a healthy breakfast is important.
- Describe three strategies for making healthy snack choices.
- List seven ways to eat healthily at a fast-food restaurant.
- List six ways to eat healthily at home.

Start Off Write

How does eating breakfast affect your ability to concentrate in class?

Every morning, Jimmy's dad makes Jimmy eat breakfast. But Jimmy isn't always hungry in the morning. Why do you think his dad wants him to eat breakfast?

Breakfast is a very important meal because it gives you the energy you need to start the day.

Eating a Healthy Breakfast

Many teens skip breakfast in the morning. Often, they are too busy to eat, or they do not feel hungry. However, skipping breakfast may affect a person in many ways. First, most people who don't eat breakfast become hungry, irritated, or light-headed by the middle of the morning. They may have trouble concentrating, especially in class. Eating a healthy breakfast usually prevents you from feeling this way. In the morning, your body has been without food all night and needs nutrients from food. The nutrients you get from breakfast will be used for energy at different times. So, if you eat breakfast, you will continue to have energy over a length of time. If you can't eat breakfast in the morning, be sure to bring a healthy, mid-morning snack to school. The figure below shows some ideas for a healthy breakfast.

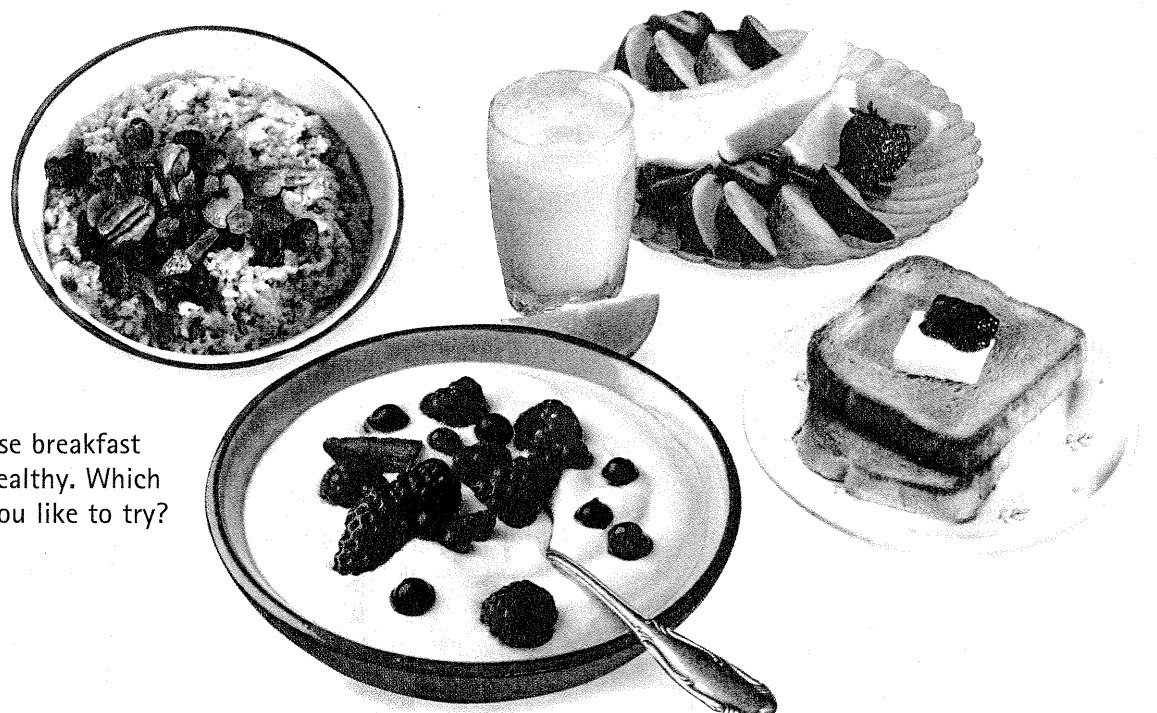


Figure 12 These breakfast choices are healthy. Which ones would you like to try?



HEALTHFUL SNACK IDEAS

Instead of these ...

Candy, chocolate bars,
or ice cream

Potato or corn chips

Creamy dips or cheese sauce

Soda

...Try these!

Raisins, bananas, cherries,
apples, cranberries, or apricots

Baked chips, pretzels,
sunflower seeds, or nuts

Salsa or plain yogurt

Milk, water, or fruit juice

Figure 13 Many snack foods are high in fat, sugar, or salt. Try these snack ideas for a healthy treat.

Snacking Well

Snacks are the foods you eat between meals. Believe it or not, eating snacks is not a bad thing! In fact, eating a snack is a good idea because doing so gives you energy to keep going between meals. Choosing healthy snacks helps you get all the nutrients you need. Eating healthy snacks can also keep you from getting too hungry between mealtimes. If you are too hungry before a meal, you may eat more food than your body needs.

Unfortunately, many snack foods, such as cookies and chips, are high in Calories, fat, sugar, and salt and low in vitamins and minerals. Also, eating too many snacks may lead to excess weight gain and cause you to be too full to eat healthy meals.

Choosing snacks that are good for you is easy. First, choose to eat sugary or salty snacks only once in a while. These snacks include candy bars, chocolate, hard candies, and chips. Second, choose foods that are low in fat. For example, choose to eat fresh fruit, crackers, yogurt, or vegetables. Bring a snack with you if you know you will be away from home. Bringing a snack from home will keep you from buying a snack from the vending machine. Third, choose healthful snack foods that you will enjoy. You will be more likely to eat healthfully if you are eating something you like! Take a look at the figure above for some healthy snack ideas.

Building Character

GOOD JUDGMENT

People with *good judgment* consider all the consequences of a decision and then act to achieve the best outcome. Using good judgment in daily decisions can help you achieve a long-term health goal. For example, you probably would never think "If I eat well today I'll be healthy." Nor would you think "I ate badly today so I'm not healthy." A healthy diet means using good judgment over a period of time—making good choices in most of your diet allows for occasional treats. Describe how good judgment could help you realize the goal of making a healthy breakfast part of your diet.

LIFE SKILLS ACTIVITY

MAKING GOOD DECISIONS

You and your friends decide to eat dinner at Charlie's Take-Out in the mall. The menu at this restaurant is shown at right. Next to each item, you will find how many grams of carbohydrates (C), protein (P), and fat (F) are found in each food. Based on what you have learned, choose a healthy meal from the menu.

Main Meals			Sides & Drinks				
	C	F	P	C	F	P	
Hamburger	45	21	36	French Fries	30	13	2
Grilled Chicken Sandwich	38	13	27	Side Salad	4	0.3	1
Bean Taco	25	16	1	Baked Potato	82	0.3	7
Hot Dog	0	13	5	Soda	51	0	0
Tuna Sandwich	29	4	27	Iced Tea	1	0	0

Eating Out

Eating out is a normal part of most people's lives. Many teens choose to eat at fast-food restaurants. It is OK to eat fast-food meals once in a while. But if you eat fast-food meals more than once a week, you may be eating more fat and salt than you need.

If you must eat at fast-food restaurants, choose healthful meals. Many restaurants offer salads or grilled meals. Grilling is a method of cooking that is usually low in fat. If low-fat choices are not available, you can choose not to eat the entire portion.

There are several ways to make your fast-food meal healthier. For example, when you use dressing, ask for one that is low in fat. You can use mustard or ketchup instead of mayonnaise. You should try to avoid using mayonnaise because it is high in fat. Also, you can avoid the extra foods that come with your meal, such as bacon or extra cheese on a hamburger. Try eating salsa instead of cheese sauce. Finally, you can order water with your meal instead of ordering a soda.

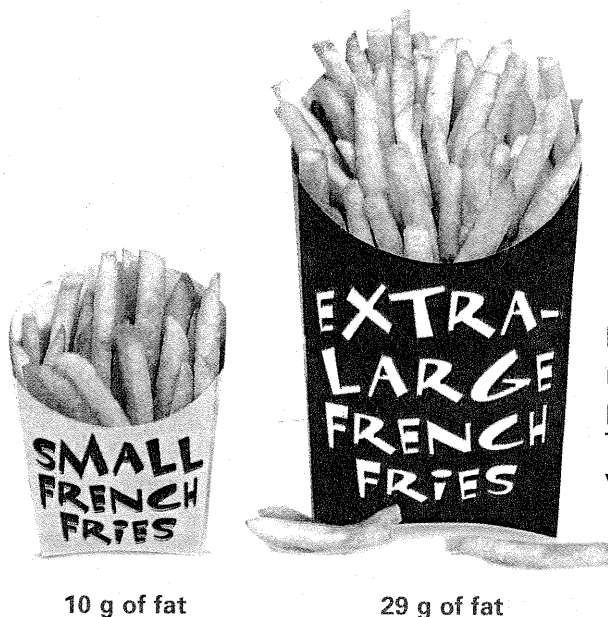


Figure 14 Many fast-food restaurants offer extra-large portions of their meals. These portions are usually very high in fat.

Eating at Home

Eating healthy meals at home can be fun and easy. Encourage whoever prepares meals at home to make healthy choices by using the MyPyramid food guidance system and the Dietary Guidelines for Americans. If you prepare a meal for yourself, you can follow these suggestions, too. Choose whole-wheat bread for a sandwich. Use a tomato sauce on pasta rather than a creamy sauce. Be sure to have plenty of vegetables with your meals. You can easily prepare a salad with lettuce, tomatoes, carrots, and other fresh vegetables that you like. If you like eggs, choose to eat an omelet or scrambled eggs instead of fried eggs. You can also try jam on whole-grain breads and bagels instead of butter. Finally, try drinking water, milk, or juice instead of soda.

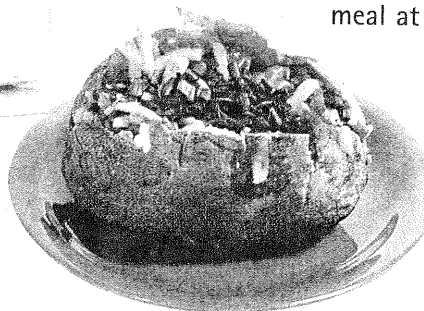
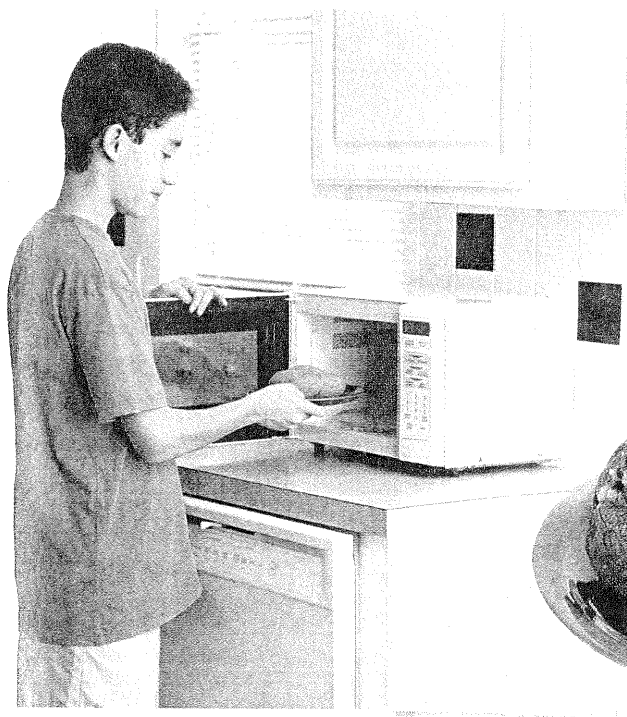


Figure 15 Eating a healthy meal at home can be easy!

Health Journal

For 1 day, write down everything that you eat. Then, on a second day, plan what you are going to eat on that day. Follow your plan. Compare what you ate when you didn't plan and what you ate when you did plan. Which day did you eat more healthful foods?

Lesson Review

Understanding Concepts

1. Explain why eating a healthful breakfast is important.
2. List three ways to make healthy snack choices.
3. Describe seven ways to make healthy choices at a fast-food restaurant.

4. List six strategies for eating healthily at home.

Critical Thinking

5. Imagine that you have to stay after school for soccer practice. What can you do to make sure that you have a healthy snack before practice?

Chapter Summary

■ Nutrition is the study of how your body uses the food you eat to maintain your health. ■ Your diet is a pattern of eating that includes what you eat, how often you eat, and how much you eat. ■ The six classes of essential nutrients are carbohydrates, fats, proteins, minerals, vitamins, and water. ■ The Dietary Guidelines for Americans, the MyPyramid food guidance system, and the Nutrition Facts label are tools you can use to make healthy food choices. ■ Eating a healthy breakfast prevents you from feeling hungry, irritated, or lightheaded during the first half of the school day. ■ Eating a healthy snack between meals prevents you from eating too much at mealtimes. ■ Choosing foods low in fat and salt when you eat out will help you maintain a healthy diet. ■ Including plenty of fruits and vegetables in your meals at home will help you maintain a healthy diet.

Using Vocabulary

For each pair of terms, describe how the meanings of the terms differ.

- ① MyPyramid/Nutrition Facts label
- ② carbohydrate/protein

For each sentence, fill in the blank with the proper word from the word bank provided below.

nutrients	digestion
diet	carbohydrate
fats	proteins
vitamin	mineral
Dietary Guidelines for Americans	Nutrition Facts label
	MyPyramid

- ③ A ___ is a pattern of eating.
- ④ Nutrients that supply the body with energy for building and repairing tissues are ___.
- ⑤ Nutrients that store energy and protect nerves are ___.
- ⑥ The food guidance system that shows you the relative amounts of each type of food to eat every day is called ___.

- ⑦ The process in which food is broken down into a form your body can use is called ___.

Understanding Concepts

- ⑧ Explain how your feelings may affect your food choices.
- ⑨ Name the six classes of essential nutrients. For each nutrient class, give one example of a food in which that type of nutrient can be found.
- ⑩ Explain what water does for your body.
- ⑪ Which nutrients provide your body with energy?
- ⑫ What is the difference between a serving and a portion?
- ⑬ Why can eating a snack between meals be good for you?
- ⑭ What are some healthy breakfast choices?
- ⑮ How many glasses of water and fluids should you drink every day?

Critical Thinking

Applying Concepts

- 16 Imagine that you are planning a meal to eat before your volleyball game. From which food groups will you choose most of your foods?
- 17 Explain how you can use the Nutrition Facts label to choose a food that is high in calcium.
- 18 Given what you now know about eating healthfully, list two eating habits that you would like to change. Then, list two ways you could change those habits.
- 19 If the MyPyramid food guidance system recommends that you need 3 cups of milk a day, how many days will a gallon of milk last you? (Hint: There are 16 cups in a gallon.)
- 20 The cheeseburger you ate for lunch today contained 14 grams of fat, 35 grams of carbohydrate, and 12 grams of protein. If 1 gram of carbohydrate contains 4 Calories, 1 gram of fat contains 9 Calories, and 1 gram of protein contains 4 Calories, how many Calories did the cheeseburger contain?

Making Good Decisions

- 21 You are trying to decide what to eat for a snack. After looking around the kitchen, you find a bag of potato chips, a bagel, some strawberries, and a banana. Suppose that you have basketball practice in 1 hour. Which foods will you choose for your snack? Which foods will give you the most energy for basketball practice?

Interpreting Graphics

Nutrition Facts

Serving Size 1 cup (228 g)
Servings per Container 2

Amount per Serving
Calories 250

	% Daily Value
Total Fat 12 g	18%
Saturated Fat 5 g	25%
<i>Trans</i> Fat 3 g	
Cholesterol 30 mg	15%
Sodium 470 mg	20%
Total Carbohydrate 31 g	10%
Dietary Fiber 1 g	4%
Sugars 7 g	
Protein 5 g	
<hr/>	
Vitamin A	4%
Vitamin C	2%
Calcium	20%
Iron	4%

Use the Nutrition Facts label for macaroni and cheese above to answer questions 22–27.

- 22 How many Calories are in the entire box of macaroni and cheese?
- 23 Which vitamins and minerals are found in this box of macaroni and cheese?
- 24 Would a serving from this package be considered high or low in sodium?
- 25 Is this food high in calcium? Explain your answer.
- 26 How many total grams are in this box of macaroni and cheese?

Reading Checkup

Take a minute to review your answers to the Health IQ questions at the beginning of this chapter. How has reading this chapter improved your Health IQ?