

# 3

# Lifestyle Physical Activity



## *In this chapter...*

### **Lesson 3.1 Lifestyle Physical Activity: Level 1 of the Physical Activity Pyramid**

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## Lesson 3.1

# Lifestyle Physical Activity: Level 1 of the Physical Activity Pyramid

### Lesson Vocabulary

CDC, FITT, NASPE, PCPFS, pedometer

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One type of activity in the Physical Activity Pyramid introduced in chapter 1 is lifestyle physical activity. Can you describe what lifestyle activity is? What lifestyle activities do you perform? How do lifestyle activities benefit you? When you finish this lesson, you'll know the answers to these questions. You'll also know about the FITT formula and some guidelines for participating safely in physical activity.

## What Is Lifestyle Physical Activity?

In chapter 1 you were introduced to lifestyle physical activities. This type of physical activity is placed at level 1 of the Physical Activity Pyramid because it has many benefits and because it's easy for people of all ages to perform. Among adults, it's the most common form of physical activity.

The name "lifestyle activity" was chosen by experts to recognize the health benefits of activities of daily living. Lifestyle activities can be done by anyone. However, level 1 of the pyramid includes activities other than walking to school and working in the yard. In fact, level 1 includes all activities that are moderate—meaning equal in intensity to brisk walking—rather than those that are light or vigorous. For example, it includes moderate sports such as bowling and golf, and moderate recreational activities such as fishing. So although this book uses the term "lifestyle activity" to mean activities at level 1 of the pyramid, remember that all moderate activities are part of level 1.

## What Is the FITT Formula?

The letters in FITT help you remember the four parts of a formula for determining how much physical activity is enough.

- **F** stands for frequency, which is how often you should be active, or the number of days you should take part in physical activity each week.
- **I** stands for intensity, which is how hard you should exercise. Should it be light, moderate, or vigorous?



**Moderate lifestyle activities are good for beginners and for people with limited activity choices.**

- The first **T** stands for time, which is how long you should do your daily activities, or how many minutes you should be active each day.
- The final **T** stands for type. The many types of physical activity are described in the Physical Activity Pyramid in chapter 1 (see page 4).

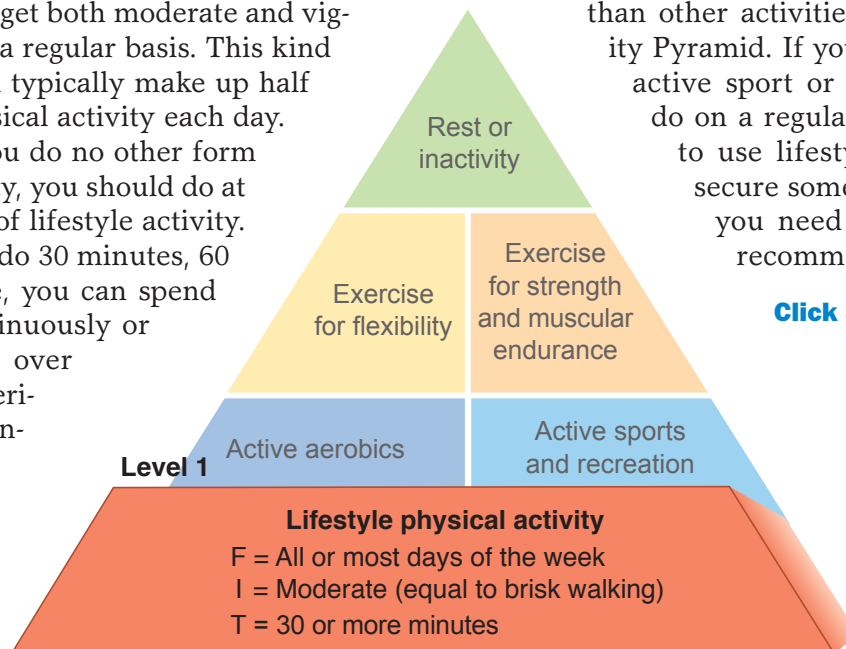
Each type of physical activity from the first three levels of the Physical Activity Pyramid for teens has its own frequency, intensity, and time. For this reason, each type of activity has its own FIT formula. The final T is not needed because the activity's type is already known. The type of activity to be discussed in this chapter is lifestyle activity.

## How Much Lifestyle Physical Activity Do I Need?

Several reports have described the physical activity needs of youth. A report of the National Association for Sport and Physical Activity (NASPE) indicates that youth need at least 60 minutes and up to several hours of physical activity each day. The Centers for Disease Control and Prevention (CDC) also recommend 60 minutes of activity for youth. The CDC is a U.S. government agency charged with protecting the health of citizens. Finally, a group of several hundred experts developed physical activity guidelines for teens. This group recommends that teens get both moderate and vigorous activity on a regular basis. This kind of activity should typically make up half of your total physical activity each day. On days when you do no other form of physical activity, you should do at least 60 minutes of lifestyle activity. But whether you do 30 minutes, 60 minutes, or more, you can spend the minutes continuously or spread them out over several activity periods lasting 10 minutes or more.

### FIT FACT

The American Heart Association and the American Cancer Society recommend at least 60 minutes of daily physical activity for teens to enhance lifelong health.



**Lifestyle or moderate physical activities are the base of the Physical Activity Pyramid.**

**Table 3.1**

### FIT Formula for Lifestyle Physical Activity

F = Frequency	Perform lifestyle physical activity on all, or most, days of the week. Teens should be active a minimum of five days per week.
I = Intensity	Moderate; equal in intensity to brisk walking. Your heart rate goes up a bit but not as much as it does in vigorous activity.
T = Time	At least 30 minutes per day.
T = Type	Lifestyle and other moderate physical activities

Based on the recommendations of experts, we can describe the amount of lifestyle physical activity teens need by using the FIT formula (see table 3.1).

If you're involved in active sports and recreation, you might meet the recommendation for physical activity (at least 60 minutes a day) without even counting your lifestyle physical activity. However, as you move into adulthood, you might not participate in active sports and recreation as frequently as you do now. Adults are more likely to participate in moderate lifestyle activities than other activities in the Physical Activity Pyramid. If you have not yet found an active sport or recreational activity to do on a regular basis, you might need to use lifestyle physical activity to secure some of the activity minutes you need each day to reach the recommended level.

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## Why Is Lifestyle Physical Activity at the Bottom of the Pyramid?

As noted at the beginning of this chapter, one reason lifestyle activity is at the bottom of the pyramid is that it's a very basic type of activity that most people can do. Many people with limitations that keep them from doing more vigorous activities can walk or do some other moderate physical activity that is equal to brisk walking. For example, people who rely on a wheelchair to get from place to place can navigate in their chair (wheelchair walking), as it qualifies as a lifestyle activity. Walking can be done by most people of all ages, including very old people. Other activities equal in intensity to brisk walking (such as taking the stairs rather than an elevator, doing yard work or other work around the house, or having an active occupation) count as moderate lifestyle activities. You can do these activities throughout your life.

A second reason lifestyle physical activity is at the bottom of the pyramid is that it provides many benefits for all people. Of course, it's best to do all types of activity from the pyramid each week. However, if for some reason you're limited in the types of activity you can perform, moderate activity is a good choice. For example, if you get injured, if you get sick, or if you're away from home and have little opportunity to be active, you can do moderate lifestyle activity. It can be done anywhere and with little equipment. It's a good starting point for beginners and for those who are getting back to exercise after an injury or illness. Because it's a basic type of activity, it fits well at the base of the pyramid.

### ***FIT FACT***

If your step is as long as the average 10- to 14-year-old (slightly less than a yard or a meter), you could walk from San Francisco to New York City in about 5,587,200 steps. It would take you about 47,811,840 steps to walk around the world at the equator.

### ***The Pedometer***

A **pedometer** is a computerized device that counts every step you take. You place it on your belt and wear it throughout the day to measure the amount of moderate activity you're getting. Each morning you push a button that



sets the pedometer to zero, and each evening you read the number of steps on the pedometer and record it in an activity log. If your school has pedometers, you might be able to test one out to see how many steps you take each day. Because pedometers count all the steps you take each day, if you do both lifestyle activity and vigorous activity, you won't know

how much of each type you performed. You may want to record more details about your activities or reset your pedometer before and after activities of different types.

Different groups recommend different numbers of steps per day for students. Since being active every day is important, the President's Council on Physical Fitness and Sports (**PCPFS**) offers a President's Active Lifestyle Award for people of all ages. It is meant to encourage people to be active every day by providing a way to record their activity and by offering awards for those who are active over a six-week period. You can count the time you're active, or you can count the number of steps you take each day using a pedometer. While this program was created in the United States, the step counts and amounts of time necessary to earn awards are appropriate for people in other countries as well.

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## Moving Together: Safe Physical Activity

You might know about safety precautions, but do you follow them? Which precautions do you follow? Do you wear seatbelts every time you're in a car? Do you also wear appropriate safety gear when in-line skating or riding your bike? Do you follow traffic safety rules when walking and biking? Do you remember to warm up before and cool down after playing sports?

LaVerne and Katie decided that they wanted to be more active. They decided to meet three days a week after school to be active together. They planned to do several different activities on different days: running, in-line skating, swimming, biking, and tennis. Occasionally, they planned to join some other friends to play volleyball. Before beginning, they wanted to be sure that their activities would be safe.



### Discussion Questions

1. Before beginning their first day's activity, how can LaVerne and Katie get ready for their activities?
2. What safety factors should LaVerne and Katie consider before they perform the activities they are planning?
3. What factors in the environment should LaVerne and Katie consider?
4. When playing sports or games with others, what can the girls do to ensure the safety of others as well as themselves?

### Guidelines for Safe Participation

Being physically active is important to good health, but safety precautions are important. Consider the following factors when preparing for participation in physical activity.

- ▶ **Be medically ready.** Before beginning a new program, especially if it is very active, you should be certain that you are medically ready. Experts have developed a questionnaire called the PAR-Q that is sometimes used to determine medical readiness. Your teacher can help you determine your medical readiness using the PAR-Q.

- ▶ **Warm up before and cool down after your workout.**

The warm-up gets your body ready for activity. It can help prevent injury and may improve your performance. The cool-down can help you recover after activity. For more on warm-ups and cool-downs, see page 6 in chapter 1.

- ▶ **Consider the weather.** If you're active outdoors, wear sunscreen. On hot days, dress properly and drink lots of water. Take frequent breaks and stop if you get too hot or feel dizzy or sick. In cold, wet, or windy weather, wear protective clothing. If the conditions are bad (such as too hot and humid, or too cold and windy), postpone activity or perform it indoors.

- ▶ **Wear protective gear when necessary.** Activities such as biking require a helmet; in-line skating requires a helmet and hand, elbow, and kneepads. Other activities also require special equipment. Find out what the appropriate protective equipment is for each activity you are going to try and learn to use it properly.

- ▶ **Get instruction and practice the activity to avoid accidents or falls.** When you learned to ride a bike, you likely got help and practiced to prevent falls. Good instruction and practice can help you avoid injuries in activities such as in-line skating and rock climbing.

- ▶ **Adhere to safety rules.** Some activities have rules to ensure your safety. For example, swimming in certain areas is prohibited because it can be dangerous. Diving in a shallow pool is against the rules for your protection.

- ▶ **Consider the safety of others.** A fast runner may want to jog more slowly when joining a friend who is a beginner. A beginner who tries to keep up with a more advanced runner may get blisters, become sore, and not have fun. In sports and games, take steps to ensure the safety of others by playing under control and having respect for other competitors.

- ▶ **Choose a safe play area.** Not all playgrounds are safe. Identify safe play environments in your area.

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## How Much Lifestyle Activity Do Most Teens Get?

Now that you know about how much lifestyle physical activity teens need, it might be interesting to see how much activity teens actually get. A national survey is done each year to see how many teens do at least five days a week of moderate lifestyle physical activity. Studies show that less than 30 percent of teens get enough lifestyle physical activity each week. Among boys, 27 percent get enough moderate physical activity each week, and only 23 percent of teen girls get enough. Preteens get more moderate activity than teens do, and young teens (13 to 14) get more moderate activity than older teens do (15 to 18). Do you get enough lifestyle activity each week? Are you more active than the typical teen?



**Fun recreational activities of moderate intensity are considered lifestyle activities.**

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### Take It Home

#### Making Changes

Nobody's perfect. Some people eat too much junk food. Some have other bad habits. Some people aren't as active as they should be. Many people want to change what they do, but changing behavior can be difficult. To make a change, you need to know where you are before you start and where you want to go. If you're planning to take a trip, you look on the map for your starting place and then get directions to the place you want to go. You do something similar when you want to change a behavior. You need to know where you are when you start. Then you can decide how to get where you want to go.

So where do you stand when it comes to physical activity? How about friends and family? Where do they stand? When it comes to physical activity, people range from couch potatoes to active exercisers.

- Couch potatoes are inactive with no plans to become active.
- Inactive thinkers are inactive but thinking about becoming active.
- Planners are taking steps to become active.
- Activators are active but not on a regular basis.
- Active exercisers are active on a regular basis.

People are at different stages for all types of health behaviors, including eating, health habits such as brushing teeth and flossing, and bad habits such as smoking. Some are not thinking of change and some already have good health habits. If you're already active, maybe you can help a friend or family member become more active. If you're not an active exerciser, maybe friends and family can give you the support you need in order to become more active.

Use the worksheet supplied by your teacher to keep track of the different kinds of activities you perform on a typical day. Then use the information to see if you're getting the right amount of activity.

#### Lesson Review

- ▶ What is lifestyle activity, and what are some types of lifestyle activity?
- ▶ What is the FITT formula?
- ▶ How much lifestyle physical activity should teens perform?
- ▶ Why is lifestyle activity at the first level of the pyramid?
- ▶ What are some guidelines for participating safely in physical activity?
- ▶ How much lifestyle activity does the typical teen get?

## Lesson 3.2

# Benefits of Lifestyle Physical Activities

### Lesson Vocabulary

friction

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When you do lifestyle activity, you get health and wellness benefits. Can you describe some of these benefits? What about physical fitness? Does lifestyle physical activity improve your fitness? When you finish this lesson, you'll know the answers to these questions. You'll also understand the importance of friction to your performance in physical activity.

## Does Lifestyle Activity Improve My Health and Wellness?

Experts recommend lifestyle and other moderate physical activity for several different reasons. First, regular moderate lifestyle activity contributes to good health by improving the way some of the important body systems function. It helps keep the fat levels in the blood low, it helps blood pressure to stay at healthy levels, and it helps in maintaining a healthy body weight.

Lifestyle physical activity also helps people to resist common diseases such as heart disease, diabetes, and cancer. These are among the leading causes of death in our society. Although teens are less likely to develop these diseases than adults, diabetes has become more prevalent in teens in recent years, and changes in body systems that lead to deadly diseases begin early in life. Lifestyle activity can help resist these changes.

Improved wellness is another benefit of moderate lifestyle physical activity. Having good wellness means that you can function effectively in daily

living and that you feel and look your best. Performing lifestyle physical activities can also provide evidence of personal accomplishment. For example, doing yard work at home helps the family, and doing yard work as a part-time job can provide income for teens. Moderate lifestyle activities don't build high levels of physical fitness the way that activities from levels 2 and 3 of the pyramid do. However, for those who are low in fitness, especially cardiovascular fitness, lifestyle physical activities can help move a person into the healthy fitness zone.

A final but very important reason for doing lifestyle physical activity is that it's easy to perform as part of normal daily life by people of all ages and abilities. You can walk to school, work in the yard, ride your bike, and climb stairs without having special skills. Anyone can do it! People who do lifestyle activity get many benefits compared to those who are inactive. You get extra benefits if you do more activity than the recommended amount, such as vigorous physical activity or additional lifestyle physical activity. However, the biggest increase in benefits comes from doing the recommended amount of lifestyle activity, which dramatically increases health and wellness benefits. These benefits come with relatively little effort because lifestyle activities are easy to do.

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**Lifestyle physical activities have many health benefits.**



## Biomechanical Principles: Friction

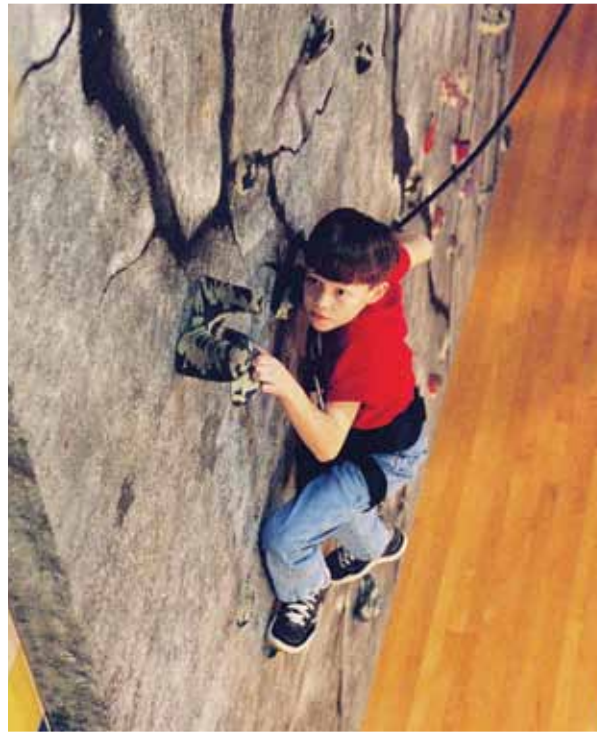
**To produce movement, some friction often is necessary. For some activities, it is helpful to increase friction while for others it is helpful to decrease friction.**

**Friction** is a force caused by one surface rubbing against another. The force of friction resists slipping between the two surfaces. Friction is important in physical activity for two reasons: slipping and gripping. In activities such as walking and running, gripping is necessary to get you going, to help you change directions, and to keep you from slipping. For lifting and holding objects and for activities such as rock climbing, gripping is good and slipping is not so good. In activities such as skiing and ice-skating, slipping is good and gripping is not so good. Likewise, slipping is good when you are pushing or dragging objects across the floor.

There are different ways to increase friction when it's needed or to reduce friction when it's not needed. Here are four examples:

- ▶ Friction is increased when the surfaces that rub together are rough or irregular rather than smooth. Rubbing two pieces of rough sandpaper creates more friction than rubbing two pieces of regular paper.
- ▶ The harder you press two objects together, the more friction you create. Weight creates pressure, so sliding a heavy object along a floor is harder than sliding a light object.
- ▶ Applying a slippery substance to the surface of an object can decrease friction. For example, wet or greasy surfaces have less friction than dry surfaces.
- ▶ Applying substances that prevent slipping can increase friction. For example, gymnasts use a chalky substance on their feet to keep them from slipping on the balance beam.

You can use the information about friction to aid you in performing various activities. Rock climbers want friction in order to resist slipping movements of their hands along the rocks. They can increase friction and improve their grip by grabbing a rough rock rather than a smooth one, or by grabbing a dry rock rather than a wet one. They can get more friction and a better grip if they press their fingers against the rock more tightly. This means that improving your grip strength is important for better rock-climbing performance. Climbers also use special powders on their hands to increase friction.



***Using chalk to prevent slipping helps to increase your grip while climbing.***

In normal daily activities, you also can benefit from knowing about friction. When trying to turn a doorknob or hold a bottle upright, you don't want your fingers to slip. You can tighten your grip to increase the friction force. In walking or running, you need friction between your shoes and the ground so that your feet can push against the ground to move you forward or to help you turn without slipping. Running tracks often have a rough surface and shoes have a tread to increase friction and grip for running and turning. The deck of a boat should have rough surfaces to reduce your chance of slipping when the deck gets wet.

In some activities, you don't want a lot of friction. Skiers want to reduce friction between the snow and their skis so they can slide down the hill easily. The snow is smooth and wet. The skis may be waxed to reduce friction and increase sliding. Skiers also lift their feet slightly to reduce the friction between the snow and the skis when trying to turn the skis. Then they push down harder to get enough friction to be able to change directions. Of course, if there is too little friction because the ski slope is packed with ice, it may be too slippery to ski safely. Even in skiing, some friction is good, particularly for changing directions and slowing down.



When you push or pull a heavy object across the floor, it will move more easily if you reduce friction. You can reduce friction by putting the object on something smooth, like a carpet square, and making sure the floor is as smooth as possible. You can also reduce the force pressing the object downward by reducing its weight. For example, when moving a desk, you can remove the drawers or the contents of the drawers. You can also reduce friction by pulling up on the object to reduce its weight on the floor.

Friction is a force that affects the movement of many different kinds of objects. For this reason it relates to Newton's laws of motion. You may want to review these laws by visiting the *Fitness for Life: Middle School* Web site (see page 11).

### Applying the Principle

To use friction in order to move effectively, you need to know when friction is good and when it's not so good. You also need to understand the factors that can increase or decrease friction. If you're walking on ice or driving on a wet road, you may not have enough friction to be able to start, slow down, or turn. Instead, you might slip, which could be very dangerous. In these activities, you would like to increase friction if possible, perhaps by spreading sand on the surface to make it rougher or by using shoes or tires with rough surfaces. You could also use weight to increase friction. Some people place a heavy weight in the trunk of their cars in the winter to increase the weight over the rear wheels of the car so the tires will be less likely to slip in the snow.

Some dancers need to slide gracefully across the floor, so they wear shoes with smooth soles to reduce friction. If you're trying to slide down a snowy slope, open a sliding door, or raise a window, friction can make it hard to accomplish your goal. In these cases, you would like to reduce friction. Do you know any tricks people use to decrease friction to accomplish these tasks?

### Principle in Practice

Walk around in a circle, changing speeds. Think about the way your feet might slip as you do this. What are you doing when you feel your foot is most likely to slip? In order for you to push against the ground in any direction (to start, turn, or stop), your foot must have enough friction not to slip.

Practice holding an object, such as a book, between your thumb and fingers. First try holding the object when it's wrapped in slick paper. Then try holding the object when it's wrapped in a rough cloth. Notice how you need friction to prevent gravity from making the object slip through your fingers. What do you do to increase or decrease friction when holding each object? Which object is easier to hold between your fingers—the one with rough sides or the one with smooth sides?

Look at the soles of different shoes to see if they're likely to have much friction with the floor. Try dragging them across the floor to see if you can feel the difference in friction (resistance) you predicted. What kind of activities would each pair of shoes be good for?

Use the worksheet supplied by your teacher to look at how you can increase and decrease friction in two physical activities.



**A shoe with a smooth sole (top photo) reduces friction on a surface such as snow, while one with a rough tread (bottom photo) can increase friction.**

## Does Lifestyle Activity Improve My Fitness?

Lifestyle activity is good for increasing health and wellness, but it's not one of the best types of activity for building physical fitness. Moderate activities can help low-fit people to improve and get into the healthy fitness zone in some areas, but they're not as good as more vigorous activities for building high-level fitness. As you'll learn in later chapters, you'll need to do activities from level 2 of the Physical Activity Pyramid to build cardiovascular fitness, and activities from level 3 of the pyramid to build strength, muscular endurance, and flexibility. Activities from the first three levels of the Physical Activity Pyramid will help you to maintain a healthy body fat level and a healthy body weight. Moderate lifestyle activities are especially good for controlling body fatness because you can do them for long periods of time without getting tired.

### **FIT FACT**

Students who walk to school accumulate more steps per day than those who ride in a car or bus. Students who participate in after-school physical activities accumulate more steps per day than students who don't participate.

As you learned in chapter 1, teens are generally more active than adults. This is especially true for more vigorous activities at level 2 of the pyramid. However, it's not true for moderate activity. Adults do more moderate activity than teens. If teens do a lot of activity from levels 2 and 3 of the pyramid, it's OK for them to do less moderate activity. As mentioned earlier, however, doing regular moderate lifestyle activities early in life can help to develop habits that last a lifetime.



**Moderate lifestyle activities enhance wellness by helping you feel good and enjoy life.**

### **Lesson Review**

- ▶ How does lifestyle physical activity improve your health and wellness?
- ▶ How is friction important to performance in physical activity?
- ▶ How does lifestyle physical activity improve your physical fitness?

# 3

## Chapter Review



Number your paper from 1 to 5. Read each question. After the number for the question, write a word or a phrase that best answers the question. The page number where you can find the answer is listed after the question.

1. In the FITT formula, what does the letter F stand for? (page 27)
2. Which government group works to prevent and control diseases in the United States? (page 28)
3. According to this chapter, what is the minimum number of minutes of physical activity that teenagers need daily? (page 28)
4. What is the name of a type of small computer that you can attach to your waist to count the number of steps you take? (page 29)
5. What is the name of the questionnaire used to help people decide if they're medically ready for physical activity? (page 30)

Number your paper from 6 to 10. Next to each number, write the letter of the best answer.

- |                      |  |
|----------------------|--|
| 6. intensity         | a. refers to different kinds of activity         |
| 7. type              | b. force caused by two surfaces rubbing together |
| 8. moderate activity | c. a kind of lifestyle physical activity         |
| 9. raking leaves     | d. activity equal in intensity to brisk walking  |
| 10. friction         | e. an indicator of how hard an activity is       |

Number your paper from 11 to 15. Follow the directions to answer each question or statement.

11. What is the FITT formula, and why is it important?
12. Explain why lifestyle physical activity is placed at the bottom of the Physical Activity Pyramid.
13. Give examples of guidelines for being safe in physical activity.
14. Give examples of how friction can help or hurt performance in physical activity.
15. Give examples of some of the benefits of lifestyle physical activity.

### Ask the Author

Why does this book sometimes use FITT and other times use FIT?

Get the answer and ask your own questions at the *Fitness for Life: Middle School* Web site.

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### Unit Review on the Web

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