

# Unit **II**

# Becoming and Staying Physically Active



## Healthy People 2010 Goals

- ▶ Increase daily moderate physical activity of teens.
- ▶ Improve fitness, health, and wellness through lifestyle change.
- ▶ Increase information to teens concerning healthy lifestyle change.

## Unit Activities

- ▶ Line Exercise
- ▶ Circuit Workout
- ▶ Fitness Trail
- ▶ Elastic Band Exercise Circuit
- ▶ School Stepping
- ▶ Walking for Wellness

# How Much Is Enough?

## 4



### *In this chapter...*

#### **Activity 1** **Line Exercise**

#### **Lesson 4.1** **How Much Physical Activity Is Enough?**

#### **Self-Assessment** **Assessing Your Posture**

#### **Lesson 4.2** **How Much Fitness Is Enough?**

#### **Taking Charge** **Choosing a Good Activity**

#### **Self-Management Skill** **Choosing a Good Activity**

#### **Activity 2** **Circuit Workout**

### **Activity 1**

#### **LINE EXERCISE**

Music adds to the enjoyment of exercise. Line exercise is a form of group exercise that is done to music and is fun and easy to learn. It can be done in a relatively small space and produces many health and wellness benefits. After you have tried a planned line exercise routine you can create routines of your own.

# Lesson 4.1

## How Much Physical Activity Is Enough?

### Lesson Objectives

After reading this lesson, you should be able to

1. Name and discuss the three basic principles of exercise.
2. Explain how the FITT formula helps you build fitness.
3. Explain how to use the Physical Activity Pyramid to plan a physical activity program.

### Lesson Vocabulary

FITT formula (p. 62), frequency (p. 62), intensity (p. 62), principle of overload (p. 61), principle of progression (p. 61), principle of specificity (p. 62), target ceiling (p. 62), target fitness zone (p. 62), threshold of training (p. 61), time (p. 62), type (p. 62)



[www.fitnessforlife.org/student/4/1](http://www.fitnessforlife.org/student/4/1)

How much physical activity is enough? This question might seem very simple, but the answer can be complicated, especially if you are just beginning an activity program. In this lesson you will develop an understanding of several basic exercise principles as a good first step in answering the “how much is enough” question.

### Basic Principles of Physical Activity

Mia has been exercising for several months. Every day she does the same physical activities for about 15 minutes. Her activity program has not changed since she started. Initially Mia saw some positive results from her program. She no longer was tired at the end of her exercise, and a self-assessment showed that her cardiovascular fitness had improved. However, lately Mia is disappointed because her strength does not seem to be improving as it did at first. She has noticed improvement in her cardiovascular fitness but her flexibility has not improved as much as she would like. Mia wants to know whether she is doing something wrong. A look

at the three basic principles of exercise might give some clues about what Mia might do differently.

### Principle of Overload

The **principle of overload**, the most basic law of physical activity, states that the only way to produce fitness and health benefits through physical activity is to require your body to do more than it normally does. An increased demand on your body (overload) forces it to adapt. Your body was designed to be active; so if you do nothing (underload), your fitness will decrease and your health will suffer.



[www.fitnessforlife.org/student/4/2](http://www.fitnessforlife.org/student/4/2)

If Mia is not overloading when she exercises, she will not gain fitness and health benefits. Mia will need to increase the amount of her physical activity if she expects to continue improving her strength and flexibility.

### Principle of Progression

The **principle of progression** states that the amount and intensity of your exercise should be increased gradually. After a while your body adapts to an increase in physical activity (load) and your activity becomes too easy. When this happens, increase your activity slightly.

Notice in the following diagram that the minimum amount of overload you need to build physical fitness is your **threshold of training**. Activity above your threshold builds fitness and promotes health and wellness benefits. Having exercised for several months at the same level, Mia might now be exercising below her threshold of training for some of the parts of fitness.





It is possible to exercise too much and to go above your upper limit of activity, also called your **target ceiling**. Ideally you should do exercise that is above your threshold of training and below your target ceiling. This correct range of physical activity is called your **target fitness zone**.

When you do physical activity in your target fitness zone, you build fitness and other benefits. However, when you go above your target ceiling, you increase the chances of injury and you can develop muscle soreness. The principle of progression provides the basis for rejecting the “no pain, no gain” theory. If you have pain when you exercise, you are probably overloading too quickly for your body to adjust.

### Principle of Specificity

The **principle of specificity** states that the specific type of exercise you do determines the specific benefit you receive. Different kinds and amounts of activity produce very specific and different benefits. For example, Mia jogs around the track several days a week but she does not do stretching exercises as often as she should. Mia may also need to increase the resistance she uses for the exercises that she does to improve strength. An activity that promotes health benefits in one part of health-related fitness may not be equally good in promoting high levels of fitness in another part of fitness. Finally, exercises for specific body parts, such as the calf muscles, may provide benefits only for those body parts. For example, if Mia does only exercises for the calf muscles, she will not build the muscles in her back or shoulders.

## FITT Formula

You know that you must do more physical activity than normal to build fitness. You also know that you should gradually increase your physical activity in order to stay within your target fitness zone. But how much physical activity do you need?

You can use the **FITT formula** to help you apply the basic principles of exercise. Each letter in the word FITT represents an important factor for determining how much physical activity is enough:

► **Frequency refers to how often you do physical activity.** For physical activity to be beneficial, you must do it several days a week. As you will see later, **frequency** depends on the type of activity you are doing and the part of fitness you want to develop. For example, to develop strength you might need exercise two days a week, but to lose fat daily activity is recommended.



*Biceps curls are a good way for Mia to improve her strength.*

► **Intensity refers to how hard you perform physical activity.** If the activity you do is too easy, you will not build fitness and gain other benefits. But remember—extremely vigorous activity can be harmful if you do not work up to it gradually. **Intensity** is determined differently depending on the types of activity you do and the type of fitness you want to build. For example, counting heart rate can be used to determine the intensity of activity for building cardiovascular fitness, while the amount of weight you lift can be used to determine the intensity for building strength.

► **Time refers to how long you do physical activity.** The length of **time** you should do physical activity depends on the type of activity you are doing and the part of fitness you want to develop. For example, to build flexibility you should exercise for 15 seconds or more for each muscle group, while to build cardiovascular fitness you need to be active continuously for a minimum of 20 minutes or more.

► **Type refers to the kind of activity you do to build a specific part of fitness or to gain a specific benefit.** One **type** of activity may be good for building one part of fitness but may not work to build another part of fitness. For example, active aerobics is a type of activity that builds cardiovascular fitness but it does little to develop flexibility.

Throughout this book, you will learn how to apply the FITT formula to different activities that build specific parts of physical fitness. Each type of activity has its own formula. For simplicity we will use the phrase FIT formula. The final T will not be used when describing the frequency, intensity, and time for each type of activity.

## The Physical Activity Pyramid

The Physical Activity Pyramid on page 64 can help you understand the concept of specificity and will help you see which types of activity are best for your fitness, health, and wellness. Different types of activity in the pyramid build different parts of fitness and produce different health and wellness benefits. For optimal benefits you should perform activities from all parts of the pyramid each week. As you can see, those activities at or near the bottom of the pyramid may need to be done more frequently than those near the top of the pyramid.

### Lifestyle Physical Activity

Lifestyle physical activity, the bottom area of the pyramid, should be performed daily or nearly every day. Examples of this kind of activity include doing yard work or climbing stairs. This kind of activity is associated with many of the benefits of activity described in chapter 3. Lifestyle activity is helpful in controlling your level of body fat and building cardiovascular fitness, and it is well suited for people of all abilities.

### Active Aerobics

Aerobic activity, which you will learn about in chapter 8, is also associated with many of the health and wellness benefits described in chapter 3. It is especially beneficial for building high levels of cardiovascular fitness and helps in controlling levels of body fat. You should perform aerobic activity three to six times a week.



The word *aerobic* means “with oxygen.” It is a scientific term that has been used for decades. In 1968 Dr. Ken Cooper wrote a book popularizing the term. The book *Aerobics* helped the average person understand how much activity is necessary to provide fitness and health benefits. In Brazil, no equivalent of the word *aerobics* exists, so Brazilians refer to active aerobic activity as “Cooper.” Dr. Cooper founded the Cooper Institute, a world-famous health and fitness research institution in Dallas, Texas.



*Aerobic activity helps to build cardiovascular fitness.*



[www.fitnessforlife.org/student/4/3](http://www.fitnessforlife.org/student/4/3)

### Active Sports and Recreation

Active sports and recreation are associated with many health and wellness benefits if done moderately or vigorously. It is helpful in maintaining many parts of fitness and in building skills. You can substitute active sports or recreation for some of the aerobic activities you do three to six times a week.

### Exercise for Flexibility

To build and maintain flexibility, you should perform flexibility exercises at least three days and as many as every day of the week. Exercising in this way builds flexibility and produces such benefits as better performance, improved posture, and reduced risk of injury.



### Level 4

#### Limit Sedentary Living

- ▶ Watching TV
- ▶ Playing computer games
- ▶ Surfing the Internet



Avoid inactive periods of two hours or more during the day (or during waking hours).

### Level 3

#### Flexibility Activities

- ▶ Stretching
- ▶ Yoga
- ▶ Gymnastics

**F** = 3-7 days/week  
**I** = Moderate stretch  
**T** = 15 to 30 seconds, 1 to 3 sets

#### Muscle Fitness Activities

- ▶ Resistance training
- ▶ Calisthenics
- ▶ Wall climbing

**F** = 2-3 days/week  
**I** = Moderate to vigorous resistance  
**T** = 8 to 12 reps, 1 to 3 sets



### Level 2

#### Active Sports and Recreational Activities

- ▶ In-line skating
- ▶ Basketball
- ▶ Tennis
- ▶ Canoeing
- ▶ Hiking
- ▶ Dancing

**F** = 3-6 days/week  
**I** = Moderate to vigorous (increased heart rate)  
**T** = 20 or more minutes

#### Active Aerobic Activities

- ▶ Biking
- ▶ Jogging
- ▶ Running
- ▶ Step aerobics
- ▶ Aerobic dance
- ▶ Swimming
- ▶ Treadmill
- ▶ Stair stepper

**F** = 3-6 days/week  
**I** = Moderate to vigorous  
**T** = 20 or more minutes



### Level 1

#### Lifestyle Physical Activities

- ▶ Walk rather than ride
- ▶ Take the stairs
- ▶ Do yard work
- ▶ Play golf
- ▶ Go bowling
- ▶ Play active games

**F** = All or most days of the week  
**I** = Moderate (equal to brisk walking)  
**T** = 30 or more minutes



**Accumulate moderate activity from the pyramid on all or most days of the week, and vigorous activity at least three days a week.**

**Eating well helps you stay active and fit.**

## ***Fitness Technology:*** **ACTIVITYGRAM**

You can now use computer technology to monitor or log your own physical activity. *ACTIVITYGRAM* is a computer program that helps you keep track of your physical activity over a three-day period. You enter the activity you performed for every 30-minute block of time during the day from 7 A.M. to 11 P.M. or whenever you go to bed. You also record the type of activity you do (from the pyramid) and whether the activity was rest, light, moderate, or vigorous. The computer will print a report showing the total number of minutes of activity each day, the amount of activity done at each level of the pyramid, and the amount of moderate and vigorous activity performed. Ask your instructor for more details on *ACTIVITYGRAM*.



[www.fitnessforlife.org/student/4/4](http://www.fitnessforlife.org/student/4/4)

### **Exercise for Strength and Muscular Endurance**

To develop strength, exercise for muscle fitness at least two days a week. You will need to exercise at least three days a week to improve muscular endurance. The exercises you do for strength and muscular endurance also produce such benefits as better performance, improved body appearance, a healthier back, good posture, and stronger bones.

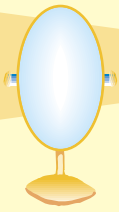
### **Inactivity and Sedentary Living**

We need to take time to recover from daily stresses and prepare for new challenges, so periods of rest and sleep are important to good health. Some activities of daily living—such as studying, reading, and even watching moderate amounts of television—are appropriate. But general inactivity or sedentary living is discouraged during the hours when you are awake. Choices from active areas of the pyramid should exceed those from the inactivity area. The information in the space below each level of the pyramid summarizes the amount of time you should perform activity from each level of the pyramid.

In the chapters that follow you will learn more about the Physical Activity Pyramid and how much physical activity from each area of the pyramid you need for building specific fitness and benefits to your health and wellness. You will see that the frequency, intensity, and time of activity will vary for each type of activity.

### **Lesson Review**

1. What are the three basic principles of exercise?
2. How does the FITT formula help you build physical fitness?
3. How can you use the Physical Activity Pyramid to begin planning a physical activity program?



## Self-Assessment



Record Your Results  
on the Record Sheet

### Assessing Your Posture

You need to practice good posture at all times. You can use this self-assessment to determine whether your posture is as good as it should be. Wear exercise clothing or a swimsuit when taking this self-evaluation. Work with a partner to determine each other's scores. Write your results on your record sheet.

1. Stand sideways next to a string hanging from at least 1 foot above your head. The string should be weighted at the bottom so that it hangs straight. Position yourself so that the string aligns with your ankle bone.
2. Have your partner answer "yes" or "no" to each question that follows.
  - ▶ Head: Is the ear in front of the line?
  - ▶ Shoulders: Are the shoulders rounded? Are the tips of the shoulders in front of the chest?
  - ▶ Upper back: Does the upper back stick out in a hump?
  - ▶ Lower back: Does the lower back have excessive arch?
  - ▶ Abdomen: Does the abdomen protrude beyond the pelvic bone?
  - ▶ Knees: Do the knees appear to be locked or bent backward?
3. Now stand with your back to the string so that the string is aligned with the middle of your back.
  - ▶ Head: Is more than one half of the head on one side of the string?
  - ▶ Shoulders: Is one shoulder higher than the other?
  - ▶ Hips: Is one hip higher than the other?
4. Add the total number of "yes" answers. Check the score against table 4.1. Do you think your posture is as good as it should be? How might you improve your posture all of the time, not just when standing?



Posture test.

Table 4.1

#### Rating Chart: Good Posture Test

Score ("yes" answers)	Rating
0-1	Good posture
2-4	Posture can use some improvement
5+	Posture definitely needs improvement



## Lesson 4.2

# How Much Fitness Is Enough?

### Lesson Objectives

After reading this lesson, you should be able to

1. Discuss fitness ratings and how they apply to your physical activity program.
2. Identify factors that contribute to fitness.
3. Describe several factors to consider when creating a personal physical activity program.

### Lesson Vocabulary

criterion-referenced health standards (p. 67), maturation (p. 67)



[www.fitnessforlife.org/student/4/5](http://www.fitnessforlife.org/student/4/5)

You now know that physical activity is necessary to build each of the different parts of fitness. But exactly how much fitness do you need? In this lesson you will learn some ways to decide how much fitness is enough for you.

## Fitness Rating Categories

Sometimes people judge their fitness by comparing themselves to others. If they score higher on a fitness test than most other people, they consider themselves fit. This type of comparison creates several problems. First, it suggests that only a few can be fit. Second, it suggests that only high test scores are adequate for fitness.

Most experts agree that you should judge your fitness using standards of health and wellness, also called **criterion-referenced health standards**, rather than using standards that require you to compare yourself to others. Health and wellness standards require you to have enough fitness to

- ▶ reduce risk of health problems,
- ▶ achieve wellness benefits,
- ▶ work effectively and meet emergencies, and
- ▶ be able to enjoy your free time.

During this course you will learn to do self-assessments that you can use to determine whether your fitness is as good as it should be and whether you are fit enough to meet the important goals listed above. You will use one of the four categories shown in the Fitness Rating box on the next page to rate each of the five parts of health-related physical fitness. If you achieve the good fitness category, you will have achieved basic health and wellness standards of physical fitness.

## Factors Influencing Physical Fitness

Physical activity is the most important thing you can do to improve and maintain health-related physical fitness. Physical activity is something that you can control. You can choose the kinds of activities you want to do and schedule a regular time to do them. But as the diagram on page 69 shows, physical activity is not the only factor that contributes to physical fitness. Other important factors contributing to physical fitness are **maturation**, age, heredity, the environment, and lifestyle choices including nutrition and stress management. You will learn more about nutrition in chapter 14 and stress management in chapter 17.



*Your fitness should be compared to the criterion-referenced health standards rather than to your friends' fitness.*

## ***Fitness Rating***

### **High Performance Rating**

Most experts agree that reaching a high performance rating is not necessary for good health, for meeting normal daily emergencies, or for performing daily activities. However, if you want to be an athlete or perform a job such as being a firefighter, soldier, or police officer, a high performance rating increases your chance of success.

### **Good Fitness Rating**

A good fitness rating indicates that you have the necessary level of fitness needed to live a full, healthy life. In fact, achieving a good fitness rating is the goal of most people. However, to maintain this level of fitness, you will have to continue to be physically active.

### **Marginal**

#### **Fitness Rating**

Moving from the low to the marginal rating shows important progress in fitness. However, if you have marginal ratings you should continue to work for a good fitness rating.

#### **Low Fitness Rating**

If you have low fitness ratings, you have an above-average risk of developing the health problems described in chapter 3. You might not look your best, feel your best, or work and play most efficiently.



***Your friends (and other environmental factors) can indirectly affect your physical fitness.***

## Factors that influence physical fitness



### Maturation

Physical maturation refers to becoming physically mature or fully grown and developed. In the early teens, maturation begins because of hormones that promote growth and development of tissues such as muscle and bone. Some people mature earlier than others. Early developers often do better on physical fitness tests than those who mature later.

## FIT FACTS

The amount of medicine prescribed for an illness is often referred to as a dose. The amount of activity you need to get health benefits is sometimes referred to as an exercise prescription and is measured in doses. To a certain point, people who do more doses get more benefits, but too many doses can be harmful. Following the FIT formula for each type of physical activity can help you get just the right number of doses to achieve good health and fitness.

### Age

Studies show that older teens perform better on fitness tests than younger teens. In the same class, those who are older will typically do better than those who are younger. This difference is mostly because the older you are, the more you have grown and the more mature you are likely to be. However, sometimes younger people mature earlier than those who are older, and therefore could have an advantage on physical fitness tests.

### Heredity

Heredity plays a role in determining the physical characteristics we inherit from our parents that influence how we do on different physical fitness tests. For example, some people have more of the muscle fibers that help them run fast, and others have more of the muscle fibers that help them run a long time without fatigue. Still others have more fat cells because of heredity. Fortunately, fitness is composed of many different parts. Your heredity



**Find an activity you enjoy and will be able to do later in life.**





## Taking Charge: Choosing a Good Activity

You can help yourself be active by choosing activities you are likely to do both now and throughout your life. One way to evaluate an activity is to find out the number of people who participate and how long they stay involved.

At a recent high school reunion, the alumni enjoyed seeing their former classmates again. Everyone remembered Norma as an active participant in sports. She played soccer, basketball, and softball. What a surprise when her classmates discovered 10 years later that Norma did very little physical activity! The closest she got to participating in any sport was to watch her son's T-ball games. According to Norma, "It was too hard to find people who wanted to play the team sports I once enjoyed."

Kim Lea was the opposite of Norma. In high school she'd always go to the games and cheer for the teams, but she never dreamed of taking part in a sport. Kim Lea



would be the first to admit that she was the original couch potato. Now Kim Lea goes biking with her two children. She also organizes the neighborhood aerobics class. "Every Tuesday and Thursday morning we all get together and talk while we work out. No one cares how we dress or how good we are at doing the exercises, and we all seem to be energized as we go on to our next activities."

### For Discussion

**Why was it no longer feasible for Norma to continue participating in the same sports she played in high school? What might help her get involved in a physical activity again? Why do you think Kim Lea started to participate in activities? Fill out the questionnaire provided by your teacher to find out what factors determine the popularity of an activity. Consider the guidelines on page 71.**

will partly determine the parts of fitness in which you will do well and not so well. Each person will have some areas in which heredity enables better performance and some areas in which it will be harder to perform well.

### Environment

Where you live (city, suburbs, country), your school environment, availability of places to play and do other types of physical activity, and even your social environment including the friends you choose have an effect on your fitness. You will learn more about environmental factors in chapter 16.

## Anyone Can Succeed

Because many factors contribute to physical fitness, it is possible for some people who do relatively little physical activity to achieve relatively good fitness scores while they are in their teens. These people probably matured early and have inherited physical characteristics that help them to do well on physical fitness tests. They may conclude that they do not need to do physical activity. This idea may be true if they only care about doing well on fitness tests while they are young, but it will not be true for a lifetime. As people get older, physical maturation and age no longer result in a fitness advantage. Sooner or later physical inactivity starts to catch up with even those who have a hereditary advantage. Regular physical activity and healthy lifestyle choices

are absolutely necessary if fitness, health, and wellness are to occur for a lifetime.

Just as some people have fitness advantages because of age, maturation, and heredity, others have disadvantages. Even if these people do physical activity, they may find it hard to get high fitness scores, and therefore they become discouraged. If you are one of these people, avoid comparing yourself to others. Try to achieve a good fitness rating rather than worrying about getting a high performance rating. Good fitness is something that all people can accomplish, but it may be harder for some than others to reach this rating. Studies show that people who were good in sports in school, but are not active later in life, die earlier and are less healthy than those who do regular activity all of their lives, even if they were not especially good performers when they were young.

Anyone can do physical activity. No matter who you are, physical activity is important to good health and wellness as well as fitness development. With regular physical activity all people can achieve good fitness ratings in all parts of fitness.

### Lesson Review

1. What are the four fitness ratings? How do they apply to your physical activity program?
2. Identify several factors that contribute to fitness.
3. Describe the factors you should consider in selecting a good personal physical activity.



## *Self-Management Skill*

### **Choosing a Good Activity**

We know that the most active people in our society are those who have a special activity they enjoy. For example, some people love tennis, golf, running, or some other activity and participate on a regular basis. Others like variety and choose cross-training. These people do a variety of activities but are very regular in their participation. They might not have become as active as they are if they were not able to do the activities they especially enjoy. Follow these guidelines to help you find a physical activity that is especially good for you:

► **Consider your physical fitness.** How well you do in an activity depends on all parts of fitness, health-related as well as skill-related. Choose activities that match your abilities in both kinds of fitness.

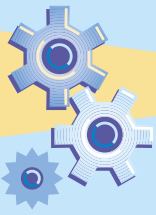
► **Consider your interests.** If there is an activity that you really enjoy or always wanted to do, don't avoid it just because it doesn't match your fitness profile. However, be aware that it may take you longer than others to learn the activity even with practice. Finding an activity that is fun is very important.

► **Consider an activity that you can do with others.** Try to find others of your own ability so that you won't be discouraged if you do not learn the activity as quickly as you would like.

► **Consider the benefits of the activity.** As you progress through this book you will learn a lot about the benefits of different activities. Selecting activities from each area of the pyramid is a good idea if you want to get optimal fitness, health, and wellness benefits.

► **Practice, practice, practice.** Becoming skilled in a sport or activity increases your enjoyment. If you choose an activity that is new to you, there is no substitute for practice. Taking lessons in the particular sport or activity can help you because it makes your practice more productive.

► **Consider activities that do not require high levels of skill.** Some activities do not require high levels of any part of skill-related fitness. Of activities in the Physical Activity Pyramid, sports provide the most benefits to skill-related fitness, but they also require relatively high levels of it. In addition, most sports require you to have good skills as well as to have good skill-related fitness. Sport skills such as throwing, catching, hitting, and kicking are different from skill-related fitness abilities such as agility, balance, and coordination that help you learn skills more easily. Learning skills of sports requires a lot of practice if you are to perform them well. Lifestyle and aerobic activities generally require fewer skills than sports. Even people with relatively low scores on most or all parts of skill-related fitness can find a lifestyle or aerobic activity that can be enjoyed. Jogging, walking, and cycling are only a few of these activities. Because they also do not require many skills, extensive practice is not necessary to perform them. You may want to consider one of these activities if you are not willing to take the time necessary to learn more complicated activities. In chapter 9 you will learn more about which sports and activities are best for improving the various parts of health-related physical fitness.



## Activity 2

# Circuit Workout



Record Your Results  
on the Record Sheet

Circuit training consists of several different exercises done consecutively. You move from one exercise station to the next. At each station, you complete an exercise. When you have completed the exercises at all stations, you have completed the exercise circuit. Many kinds of exercise circuits exist. This one is designed to help you build all parts of health-related physical fitness.

You can use circuit training to increase your exercise overload. As you improve in a certain exercise, you can increase the number of times you complete it. In other words, you can increase the repetitions. If you try to complete the circuit more quickly, take extra care to do each exercise properly.

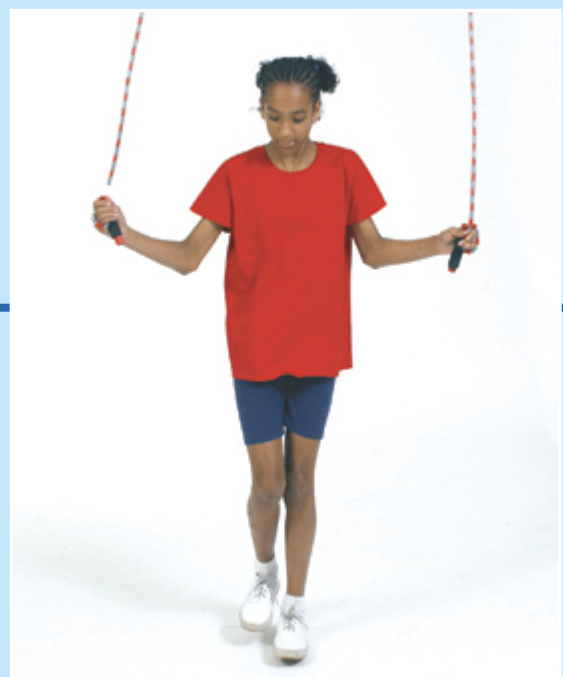
For a total fitness circuit such as this one, exercises for all parts of physical fitness and all body parts should be included. You may use a variety of equipment at the exercise stations. If no special equipment is available, you can perform calisthenics at each exercise station. Circuit training is usually planned by an exercise specialist, but you can learn to plan your own circuit course. Try the starter circuit training workout described here. Record your results on your worksheet. You can start by performing the circuit one time. You may increase the number of times you perform it as you improve.



## Side Stretch

1. Stand with your feet shoulder-width apart.
2. Clasp your hands behind your neck.
3. Bend your trunk sideways to the left as far as possible.
4. Repeat the exercise to the right.

**Safety Tip:** While doing the Side Stretch, do not twist your body, bend forward, or push your hips sideways.



## Jump Rope

Use either the jog step or the two-foot jump.

1. For the two-foot jump, jump on both feet simultaneously with each rope swing. Beginners should jump twice with each rope swing. This second jump is a small bounce.
2. For the jog step, jog or step from one foot to the other foot.





## Curl-Up

1. Lie on your back with your hands folded across your chest.
2. Bend your knees at a 90-degree angle.
3. Flatten your back, then roll your head and shoulders forward and upward. Roll far enough to feel tension in the abdominal muscles. Your shoulder blades should come up off the floor, but do not lift your back off the floor.
4. Return to the starting position.

## Bench Step

1. Step up to a bench with your right foot, then up with your left foot.
2. Step down with your right foot, then down with your left foot.
3. Repeat this 4-count (up, up, down, down) stepping at an even rhythm about 25 times per minute.



## Inchworm

1. Support your body with your arms and feet in a push-up position.
2. Slowly walk your feet forward as far as possible while your hands remain stationary on the floor.
3. Slowly walk your hands forward, away from your feet, until you are again in the push-up position.



## Sprint the Line

1. Run from one line to another 10 yards away.
2. Walk back and repeat the sprint.



## Knee Lift

1. Stand with your feet together and arms at your sides.
2. Raise your left knee as high as possible, grasping your thigh with your hands.
3. Pull your knee against your body while keeping your back straight.
4. Return to the starting position and repeat the exercise with your right knee.

## Jog in Place

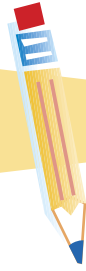
Jog in place at a rate of 120 steps a minute.

**Table 4.2**  
**Circuit Workout**

Exercise	Repetitions
Side Stretch	15 within 2 min
Jump Rope	60 jumps/min for 2 min
Curl-Up	5-10 within 2 min
Bench Step	50 within 2 min
Inchworm	5-15 within 2 min
Sprint the Line	6 within 2 min
Knee Lift	5 on each leg within 2 min
Jog in Place	120 steps/min for 2 min



# 4



## Chapter Review

### Reviewing Concepts and Vocabulary

Number your paper from 1 to 4. Next to each number, write the word or words that correctly complete the sentence.

1. For optimal benefits, you should perform activities from \_\_\_\_\_ parts of the Physical Activity Pyramid each week.
2. The minimum amount of overload needed to achieve physical fitness is called \_\_\_\_\_.
3. If you are exercising in your target fitness zone, you are between your threshold of training and your \_\_\_\_\_.
4. If you achieve a \_\_\_\_\_ fitness rating, you probably are at the level of fitness needed to live a full, healthy life.

Number your paper from 5 to 10. Next to each number, choose the letter of the best answer.

#### Column I

5. target ceiling
6. frequency
7. intensity
8. progression
9. specificity
10. overload

#### Column II

- a. how hard you perform physical activity
- b. increasing exercise gradually
- c. the upper limit of your physical activity
- d. how often you exercise
- e. doing more exercise than you normally do
- f. exercise for one fitness part

Number your paper from 11 to 15. Write a short answer for each statement or question.

11. How do age and maturation affect physical fitness?
12. Why should you develop a lifetime physical activity plan even if you are in the good fitness zone now?
13. Explain why your physical activity program should include activities from all parts of the Physical Activity Pyramid.
14. Why should you not exercise above your target ceiling?
15. Explain why you should not compare yourself to others when assessing your fitness levels and needs.

### Thinking Critically

Write a paragraph to answer the following question.

A friend tells you that he thinks it is important for everyone to attain a high performance fitness rating. He says that if a good rating is the goal for all people, then a high performance rating must be even better for everyone. How would you respond? Explain your answer.



### Project

Keep a record of your daily activities for one week. At the end of the week review your record. When during the day do you seem to have the most time and energy? During what times would it be easiest for you to participate in regular physical activity? Make a new schedule for the coming week incorporating a physical activity schedule into your plan.