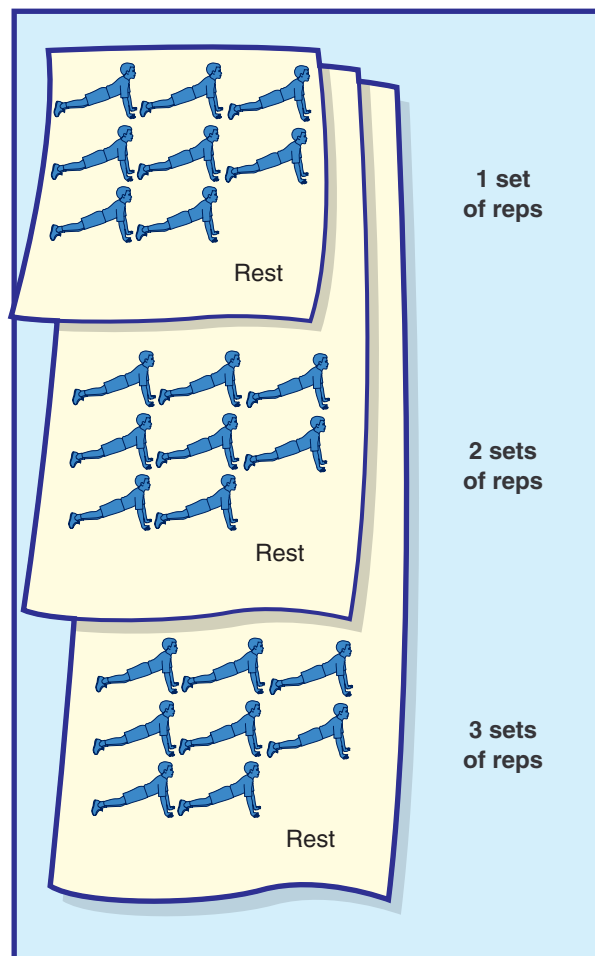


# REPETITIONS AND SETS



# MUSCULAR ENDURANCE TARGET ZONES

	<b>Threshold</b>	<b>Target zone</b>
<b>F</b> <b>Frequency</b>	3 days per week	3-6 days per week
<b>I</b> <b>Intensity</b>	20% of the maximum you can lift at one time	20-55% of the maximum you can lift at one time
<b>T</b> <b>Time</b>	1 set of 11-25 reps each exercise	1-3 sets of 11-25 reps for each exercise

Rest 2 minutes between sets.

## **GUIDELINES FOR MUSCULAR ENDURANCE EXERCISE**

- **Always warm up and stretch first.**
- **Breathe normally.**
- **Start with low intensity and progress slowly.**
- **Use good body mechanics and correct technique.**
- **Take your time and work rhythmically.**
- **Always use a full range of motion.**
- **Avoid working the same muscles in two consecutive exercises.**
- **Exercise each specific muscle group.**
- **Vary your routine.**

# ERGOGENIC AIDS

## Ergogenic aids

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### Anabolic steroids

A synthetic drug resembling the male hormone testosterone.

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### Androstenedione

A food supplement converted in the body to a substance similar to anabolic steroids.

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### Creatine

A naturally occurring substance that assists in anaerobic exercises. It can be taken in the form of a food supplement.

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### Human growth hormone

A dangerous and illegal drug that can result in deformity or death when used by teens.

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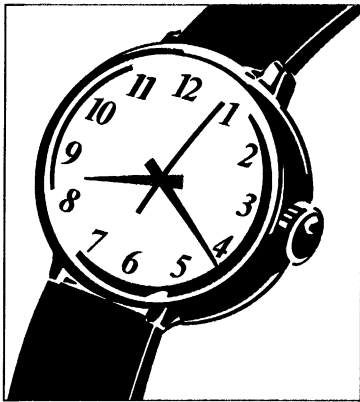
### Ephedra

A dangerous supplement often used to promote weight loss or to enhance athletic performance. It is known to cause serious side effects and is banned by many sport organizations and states.

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# TIME MANAGEMENT

## 12-E



### Keep track of your time.

Record your daily activities in three categories: school/work, committed time, and free time.

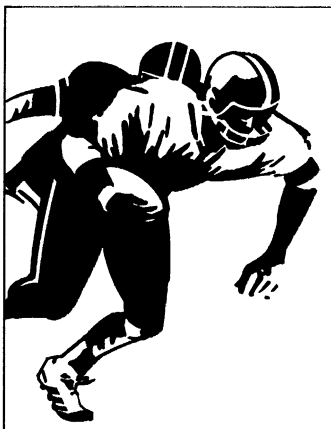
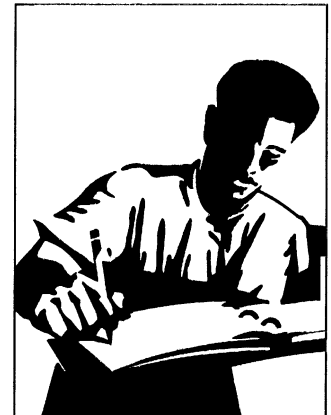
### Analyze your time use.

Are you using your time as you would like to use it?

### Decide what to do with your time.

If the activity is important to you, make it a priority. Ask yourself:

- Which activities took too much of my time?
- How much less time would I spend on each of these?
- Do I have control over the activities I want to change?
- Which activities do I want to spend more time on?
- How much more time would I spend on each of these?

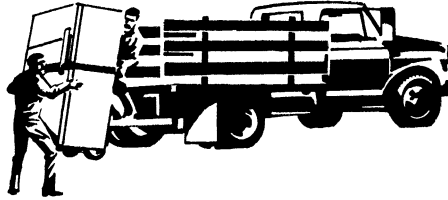


### Schedule your time.

- Write out a schedule for one full day. If regular physical activity is important to you, commit time to doing it.
- Evaluate your schedule and make necessary changes.

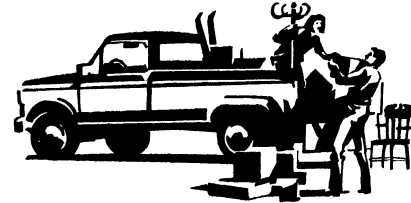
**Application****APPLY SOME MUSCLE****12**

1. Look at the following pictures. Decide whether endurance, strength, cardiovascular fitness, or some combination of the three is needed for each activity. Write the type (or types) of fitness needed in the space below each picture.



a. \_\_\_\_\_

\_\_\_\_\_



d. \_\_\_\_\_

\_\_\_\_\_



b. \_\_\_\_\_

\_\_\_\_\_



e. \_\_\_\_\_

\_\_\_\_\_



c. \_\_\_\_\_

\_\_\_\_\_



f. \_\_\_\_\_

\_\_\_\_\_

2. Read the following list of exercises. Mark an X in the blank for each exercise that builds muscular endurance.

- \_\_\_\_\_ a. Doing 2 sets of 25 push-ups  
 \_\_\_\_\_ b. Lifting a 100-pound weight once  
 \_\_\_\_\_ c. Jogging 3 miles  
 \_\_\_\_\_ d. Holding your chin above a chin-up bar for a count of 16  
 \_\_\_\_\_ e. Squeezing an old tennis ball for 3 sets of 8 repetitions



# 12

## Reinforcement

### MUSCULAR ENDURANCE WORD GRID

Complete the sentences by using words from the chapter. The words or word parts are found in the chart. Use the clues provided to check your answers. The first one is done for you.

	1	2	3	4
A	resistance	exercises	muscle	exercises
B	fast-	fibers	iso	strength
C	set	metric	muscle	fibers
D	muscular	calisthenics	resistance	muscles
E	twitch	endurance	slow-	tonic
F	training	repetitions	intermediate	fibers
G	iso	muscle	skeletal	twitch

- Muscles can contract many times without tiring if you have muscular endurance. D1 + E2
- The amount of force a muscle can exert is \_\_\_\_\_. B4
- Body parts do not move when you perform \_\_\_\_\_. B3 + C2 + A4
- Muscles that make movement possible are \_\_\_\_\_. G3 + D4
- Body parts move when you perform \_\_\_\_\_. G1 + E4 + A2
- A force that acts against the muscles is \_\_\_\_\_. D3
- Muscle fibers that are primarily used in cardiovascular activities are \_\_\_\_\_. E3 + G4 + G2 + C4
- Muscle fibers that are primarily used in strength activities are \_\_\_\_\_. B1 + E1 + A3 + F4
- Muscle fibers that are used in activities for both strength and cardiovascular fitness are \_\_\_\_\_. F3 + C3 + B2
- The number of consecutive times you do an exercise is called \_\_\_\_\_. F2
- Using free weights or machines in your workout is a form of \_\_\_\_\_. A1 + F1
- Body weight is used as resistance in \_\_\_\_\_. D2
- One group of repetitions in an exercise is a \_\_\_\_\_. C1



# 12

## **Personal Project**

## **LOGGING AND PLANNING RESISTANCE TRAINING EXERCISES FOR ENDURANCE**

### **Part 1—Logging Endurance Resistance Exercises**

Use this form to record your participation in endurance training exercises for one week. Record the number of sets and reps you complete for each exercise each day. Remember to do resistance training exercises for endurance on non-consecutive days. Refer to the FIT formula chart in your textbook for guidance. Answer the questions provided when you have finished your weekly log.

From *Fitness for Life: Teacher Resources and Materials, Fifth Edition* by Karen McConnell, Charles B. Corbin, and Darren Dale, 2005, Champaign, IL: Human Kinetics.

<b>Write the sets and reps you complete for each exercise each day. See your textbook for FIT guidelines and descriptions of the exercises.</b>	<b>Day 1 Date: / sets/reps</b>	<b>Day 2 Date: / sets/reps</b>	<b>Day 3 Date: / sets/reps</b>
Stride Jump			
Side Leg Raise (Right)			
Side Leg Raise (Left)			
Trunk Lift			
Bridging			
90° Push-Up or Knee Push-Up			
Curl-Up With Twist			
High Knee Jog			
Prone Arm Lift			
Other:			
Other:			
Other:			

Did you complete all of the basic exercises at least two times during the week?

\_\_\_\_\_

How might you adjust your physical activity to better maintain or improve your muscular endurance?

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

What short-term goals might you have for improving your muscular endurance?

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



# 12

**Personal  
Project**

## LOGGING AND PLANNING RESISTANCE TRAINING EXERCISES FOR ENDURANCE *(continued)*

### Part 2—Planning Endurance Resistance Training Exercises

Make a plan for the following week incorporating changes that might help you reach your goals. Use the chart to indicate the number of sets and reps you will do for each of the exercises listed.

Write the sets and reps you plan to complete for each exercise each day. See your textbook for FIT guidelines and descriptions of the exercises.	Day 1 Date: / sets/reps	Day 2 Date: / sets/reps	Day 3 Date: / sets/reps
Stride Jump			
Side Leg Raise (Right)			
Side Leg Raise (Left)			
Trunk Lift			
Bridging			
90° Push-Up or Knee Push-Up			
Curl-Up With Twist			
High Knee Jog			
Prone Arm Lift			
Other:			
Other:			
Other:			

Does your plan match up with the FIT guidelines for your endurance needs?

\_\_\_\_\_

Identify some strategies you can use that will help you achieve your plan.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



# 12

## Chapter Test

### MUSCLE FITNESS: MUSCULAR ENDURANCE AND GENERAL MUSCLE FITNESS INFORMATION

Choose the letter of the *best* answer for questions 1-14.

Use what you learned throughout the chapter to answer the final question.

1. Which of the following is NOT a benefit of muscular endurance exercise?
  - a. increased resting heart rate
  - b. decreased body fat
  - c. ability to work longer without tiring
  - d. stronger bones
2. When weight training for muscular endurance, you should increase the weight when you can easily do
  - a. 3 sets of 11 reps.
  - b. 3 sets of 25 reps.
  - c. 9 sets of 11 reps.
  - d. 11 sets of 25 reps.
3. Which of the following is a guideline for muscular endurance exercise?
  - a. Start with high-intensity exercise and progress rapidly.
  - b. Work the same muscle groups in consecutive exercises.
  - c. Work several muscle groups at the same time.
  - d. Breathe normally during the exercise.
4. Of the following, the term that is least closely related to the others is
  - a. muscular endurance.
  - b. cardiovascular endurance.
  - c. strength.
  - d. balance.
5. A good backpack
  - a. has shoulder straps that are thin.
  - b. has a waist strap.
  - c. can hold 50% or more of your body weight in it.
  - d. has one large compartment only.
6. A machine that measures muscle tension is called
  - a. an EMG.
  - b. an EKG.
  - c. an MTD.
  - d. an MTG.
7. Drugs that are similar to the male hormone testosterone are called
  - a. creatines.
  - b. anabolic steroids.
  - c. plyometrics.
  - d. ergogenic aids.
8. A food supplement that can act like anabolic steroids in the body is
  - a. creatine.
  - b. androstenedione.
  - c. plyometrics.
  - d. carbohydrates.
9. Jumping drills done to improve power are examples of
  - a. pioneering.
  - b. ergogenic aids.
  - c. periodization.
  - d. plyometrics.
10. Spending 5 weeks on endurance training, followed by 5 weeks on strength training, followed by 5 weeks on both strength and endurance training is an example of
  - a. plyometrics.
  - b. periodization.
  - c. ergogenic aids.
  - d. creatine use.
11. Using steroids as a teenager might cause
  - a. bones to stop growing.
  - b. toenails to turn black.
  - c. skin to dry up and wrinkle.
  - d. bones to grow too fast.
12. Drugs are different from supplements in that they
  - a. must be injected into the blood.
  - b. must be taken with food.
  - c. require testing and approval from the Food and Drug Administration.
  - d. can be sold over the counter.
13. The best way to begin to manage your time better is to
  - a. keep track of your time.
  - b. keep busy to eliminate free time.
  - c. get other people to do things for you.
  - d. spend time avoiding others.
14. Muscular endurance exercises should be done
  - a. 1-2 days per week.
  - b. 3-6 days per week.
  - c. 6-7 days per week.
  - d. less than once per week.
15. What are some important guidelines to follow when doing muscular endurance exercises?
 

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