



## Lab A7-I Calisthenics Circuit-Training Program

Calisthenics are rhythmic exercises that typically develop muscular strength, muscular endurance, and flexibility. Because calisthenic exercises require little or no equipment, they can be performed at home or while traveling. As commonly practiced, such exercises do not constitute a well-rounded fitness program because they do not develop cardiorespiratory endurance. However, a calisthenics program based on circuit training can be the basis of a complete fitness program.

Circuit training is a system of organizing a series of exercises that are performed consecutively. Exercises for different muscle groups follow each other, providing a well-rounded workout and helping to delay the onset of fatigue. When you have performed all the exercises in this model program, you will have completed one circuit; a workout consists of three trips around the circuit. The only equipment you need is a clock or watch with a second hand.

### Setting Up Your Program

1. Learn the exercises described in this lab. Be able to perform each exercise smoothly.
2. Set your work description—the number of repetitions of each exercise you will perform in each circuit—by determining the maximum number of repetitions of each exercise you can perform in the time listed in the table below. For example, count the maximum number of arm circles you can do in 30 seconds, and record that number in the “Max” column. Rest fully between exercises to obtain true maximums. Once you have filled the “Max” column, fill in half of this number in the work description column labeled “1/2 Max.” Once you have completed this step, you no longer have to worry about timing the individual exercises.

### Program Plan

Exercise	Time	Max	Work Description					
			1/2 Max	Date: _____	Date: _____	Date: _____	Date: _____	Date: _____
Arm circles	30 sec							
Jumping jacks	1 min							
Push-ups	1 min							
Squats	1 min							
Curl-ups	1 min							
Side leg raises	1 min							
Toe raises	30 sec							
Upper-back flies	30 sec							
Lunges	1 min							
Back bridges	1 min							
Bent-knee leg lifts	1 min							
Oblique curl-ups	1 min							
Run in place	3 min							

(over)

## LAB A7-I (continued)

### Performing the Circuit

1. Warm up before you begin the circuit by doing some walking, jogging, or easy calisthenics exercises. When you are ready to begin, note your starting time.
2. Perform the exercises in order, each for the number of repetitions in the “1/2 Max” column. Time no longer matters for each exercise—just work steadily.
3. Monitor your intensity by checking your heart rate or monitoring your rating of perceived exertion (RPE). Do not rest between exercises unless your heart rate or RPE goes above your target zone.
4. Complete three trips around the circuit. In the progress chart below, write the date and total time the three circuits took.
5. Cool down. Consider performing stretching exercises while your muscles are warm. (See the flexibility program in Chapter 5 in your text.)

### Progress Chart

Date												
Time												

### As You Progress

When you can perform the three circuits in 20 minutes, increase the number of repetitions (the work description) of each exercise by one-quarter of the present work description. For example, if your current work description for push-ups is 20 repetitions, your new work description will be 25. Record the date and the new work description values in the program plan table.

### Exercises

*Arm circles* Stand with your feet shoulder-width apart and your knees slightly bent. Maintain good posture to protect the lower back. Hold your arms out to the side at shoulder height with palms up. Rotate your arms forward in a circular motion. Keep your shoulders down. Halfway through the time limit or work description, reverse the direction of your circles.

*Jumping jacks* Start with your feet together and your hands at your sides. Jump into a straddle position and clap your hands over your head. Then jump back to the starting position. Always land with your knees slightly bent. Land on the balls of your feet and then press your heels down. If you prefer a low-impact movement, step to the side into the straddle position and then step back into the starting position; alternate legs.

*Push-ups* Depending on your level of muscular strength and endurance, you can perform either standard push-ups or modified push-ups. For push-ups, begin with your body supported by your hands and feet; for modified push-ups, begin with your body supported by your hands and knees. Lower your chest to the floor with your back straight and your fingers pointed forward. Return to the starting position.

*Squats* Stand with feet shoulder-width apart and toes pointed slightly outward. Keeping your head up and lower back straight, squat down until your thighs are approximately parallel with the floor. Don't let your knees extend out in front of your toes. Hold this position for about 2 seconds. Return to the starting position.

*Curl-ups* Lie on your back on the floor with your arms folded across your chest, knees bent, and feet on the floor. Curl your trunk up and forward by raising your head and shoulders from the ground. Lower to starting position.

*Side leg raises* Lie on your right side, with your right arm extended flat along the floor. Bend your right knee, keeping your knee and thigh in line with your torso. Place your left hand on the floor in front of your chest for balance. Keeping your left leg straight, foot flexed, and toes and knee facing forward (not up), lift your leg 1 to 2 feet off the floor. Then lower it to the starting position. Do half of your total repetitions on this side, and then do the same number of repetitions on the other side.

*Toe raises* Stand with feet shoulder-width apart and toes pointed slightly outward. Press down with your toes while lifting your heels. Return to the starting position. Don't bounce.

(over)

## **LAB A7-I** (continued)

*Upper-back flies* Stand with your feet 1½ to 2 times shoulder-width apart and your knees slightly bent. Keeping your back straight, lean forward until your torso is diagonal to the floor. Let your arms hang forward, with elbows slightly bent and hands fisted. Leading with your elbows, open your arms to the side and pull your shoulder blades together. Return to the starting position. Lift your arms smoothly and with resistance; don't bounce or swing them.

*Lunges* Begin with your feet shoulder-width apart and your hands at your sides or resting on your shoulders. Step forward onto your right foot until your right thigh is almost parallel to the floor. Your right knee should be directly above your right ankle and should not push out in front of your toes. Your left knee should be directly below your torso and in line with your left ankle; your lower left leg should be about parallel to the floor. Return to the starting position, using the gluteal muscles to push off the floor. Contract the abdominals to relieve pressure on your knees and lower back. Alternate legs. (*Note:* Do not perform lunges if you have knee problems.)

*Back bridges* Lie on your back with knees bent and arms extended to the side. Tuck your pelvis under and then lift your tailbone, buttocks, and lower back from the floor. Hold for about 5 seconds, with your weight resting on your feet, arms, and shoulders. Then return to the starting position.

*Bent-knee leg lifts* On your hands and knees, lift one leg so that it extends straight behind you at hip level. Lower your head by bending your elbows and leaning forward, placing your body weight over your forearms. From this starting position, bend the knee of your lifted leg with your foot flexed (the sole of your foot faces the ceiling). Lift your leg in this position several inches and then lower it to hip level. As you perform the lifts, keep your back straight by contracting your abdominal muscles. Do not lift your leg above hip level or turn your hip out. Do half of your total repetitions on one leg and then switch to the other leg.

*Oblique curl-ups* Lie on your back on the floor with your arms folded across your chest and your feet on the floor. Curl your trunk up and forward by raising your head and shoulders from the ground. Once your shoulder blades are off the floor, twist your upper body so that one shoulder is higher than the other; reach past your knee with your upper arm. Return to the starting position and repeat on the opposite side.

*Run in place* Run with your knees lifted and land with the ball of your foot first. Follow through by pressing your heel to the floor. If you prefer a low-impact movement, march in place lifting your knees high. (When you count repetitions of running or marching, count alternate steps.)