

# Exercise and Health



Sanford  
Partners In Prevention

According to the Centers for Disease Control and the American College of Sports Medicine, "Every U.S. adult should accumulate 30 minutes or more of moderate-intensity physical activity on most, preferably all, days of the week." In addition to increasing muscle tone, strength and endurance, regular exercise has numerous health benefits. Consistent physical activity is a key factor to health risk reduction, such as:

- decreases total cholesterol, LDL and triglyceride levels
- increases HDL levels
- lowers blood pressure
- reduces the urge to smoke
- assists in weight loss/maintenance
- helps manage stress
- controls blood sugar level
- reduces platelet stickiness and blood clots

**A complete exercise program consists of:**

1. Stretching for flexibility
2. Aerobic conditioning
3. Resistance training or weight lifting.

**Warm-up & Stretch** to slowly increase heart rate, temperature and blood flow to the working muscles to reduce the risk of injury during exercise. To stretch properly:

- increase exercise pace slowly
- take stretch to point of mild tension
- hold stretch 10-30 seconds
- avoid jerky movements

**Aerobic Conditioning** is the repetitive movement/contraction of large muscle groups for prolonged periods of at least 10-15 minutes, resulting in elevated heart rate and energy expenditure. Examples of aerobic exercise include brisk walking, jogging, cycling, rollerblading, and swimming. Aerobic exercise should include warm-up, conditioning, and cool-down.

If you are not currently in a regular exercise routine, it is important to start slowly and gradually build your time and speed. With any exercise program, you should check with your doctor if you have known heart disease or a medical condition that may require special attention; if you have symptoms of chest pain at rest or with activity or shortness of breath; are male over 40 years old or female over 50 years old.

Determine your goals and then design your program to accomplish those goals:

**How often?**

- Aerobic exercise 3 days/week will maintain your current fitness level.
- To improve your current fitness level, you should exercise 4-5 days/week.
- To lose weight, you should exercise 6-7 days/week.

**How hard?**

For conditioning, it is important to work hard enough to increase your heart rate into the "target heart rate range."

To determine your target heart rate,

- Subtract your age from 220.
- Multiply that result by .50 and again by .85.
- Your target range will be between these two numbers.

**Example for 40 year-old:**

$220 - 40 = 180$  (Maximum Heart Rate - your heart rate should not exceed this number).

$180 \times .50 = 90$  (lower end of target heart rate range).

$180 \times .85 = 153$  (higher end of target heart rate range).

At 40 years old, a healthy person should keep the heart rate 90 to 153 while exercising.

**To take your heart rate:**

- Locate pulse on wrist with index and long fingers of opposite hand.
- Count the number of pulsations you feel in 10 seconds, beginning with "0".
- Multiply the number by 6 to determine the beats per minute.

**How long?**

- For overall conditioning, a person should accumulate at least 30 minutes of aerobic activity most days of the week. (If 30 minutes is impossible, aim for shorter bouts of 10-15 minutes, 2-3 times each day.)
- For weight loss, longer slower distances work well. If you want to lose weight, stay in the bottom half of your target heart rate range and work up to 60 minutes of exercise.

**Cool-down** consists slowing your aerobic exercise and gentle stretches following your workout to allow your heart rate and blood pressure to gradually return to pre-exercise levels. This prevents light-headed and muscle soreness and increases flexibility.

**Strength (Resistance) Training** should be included in your exercise program at least two days each week with at least 48 hours in between each session. Resistance training for increased strength and endurance can be accomplished with resistance bands, free weights or weight machines. One or two sets of 8-15 repetitions should be completed for each exercise. All major muscles such as the biceps/triceps; pectorals; deltoids; abdominals/back muscles; gluteals; hamstring/quadriceps should be included. Perform exercises throughout the full range of motion with controlled, deliberate movements. Use lighter weights and perform more repetitions to improve muscular endurance or use heavier weights and perform fewer repetitions to improve muscular strength.

**IMPORTANT TIPS**

Stop exercising and consult your physician if you experience:

- dizziness
- chest pain or pressure
- extreme shortness of breath
- pain in legs or joints

