

The National Center on Physical Activity and Disability

General Exercise Guidelines



Exercise is a key factor in maintaining and improving overall health. Approximately half the population of the United States has or will acquire a disability that could be prevented or altered by some form of physical activity. Structured exercise programs provide the most benefits, as the Surgeon General

stated in 1996, "significant health benefits can be obtained with a moderate amount of physical activity, preferably daily." What follows are general exercise guidelines.

Potential Benefits of Exercise

- Increased cardiac (heart) and pulmonary (lung) function
- Improved ability to perform activities of daily living
- Protection against development of chronic diseases
- Decreased anxiety and depression
- Enhanced feeling of well-being
- Weight control
- Lowered cholesterol and blood pressure

Preliminary Steps to Exercise

1. Inform your physician or primary caregiver that you are considering starting an exercise program.
2. If possible, participate in a graded exercise test to determine your current level of fitness.
3. Find out the effects of your medication on exercise.
4. If possible, consult a trained exercise professional for an individualized exercise prescription.

General Safety Principles to Being Active

- Stop exercising if you experience pain, discomfort, nausea, dizziness, lightheadedness, chest pain, irregular heart beat, shortness of breath, or clammy hands.



- Drink plenty of fluids, especially water.
- Wear appropriate clothing.
- Set realistic short-term and long-term goals.
- Find and follow an exercise program that meets your specific goals.

Exercise Settings

- Outside, park, trail
- Fitness center, community center
- Work/home facility (take the stairs or walk to lunch)

Types of Exercise

- Cardiovascular (aerobic endurance)
- Strength and muscle endurance
- Flexibility

Common Exercise Terms

1. **Heart Rate (HR):** Determine your heart rate by finding your pulse: place a finger on the thumb side of the bottom of your forearm or against the side of your neck, and count your pulse beat for 15 seconds. Multiply this figure by four to calculate your heart rate per minute. Note that as you exercise more regularly, your heart rate should decrease.
2. **Maximum Heart Rate:** Subtract your age from 220 to determine your maximum heart rate. Example: a 40-year-old person would have a maximum heart rate of 180 (220 - 40 = 180).
3. **Target Heart Rate:** Calculated at 60% to 80% of your maximum heart rate. For the range's lower cutoff point, multiply .60 to your maximum heart rate; for the top cutoff point, multiply .80 to your maximum heart rate. In the previous example, this calculates a range of 108 to 144 beats per minute.
4. **Blood Pressure (BP):** A measure of the blood's pressure upon the arterial walls which consists of two values: systolic blood pressure, as the heart contracts or pumps the blood to the circulatory system (90 to 140

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mmHg), and diastolic blood pressure, as the heart fills up with blood following a contraction (60 to 90 mmHg). If possible, have a trained professional monitor your blood pressure throughout the exercise session.

5. **Ratings of Perceived Exertion (RPE):** This is a scale of how hard you feel you are exercising. The Borg scale ranges from 6 to 20. To use the scale, monitor how you feel while exercising, with a general goal of 12 to 13 RPE.

6	
7	Very, very light
9	Very light
11	Fairly Light
13	Somewhat hard
15	Hard
17	Very hard
19	Very, very hard
20	

Major Exercise Principles

- Intensity: (*how hard?*) - Intensity can vary from very light to very hard and can be monitored using training or the Ratings of Perceived Exertion scale.
- Frequency: (*how many?*) - Start with three days a week and work towards seven days a week.
- Duration: (*how long?*) - Begin with a minimum of 20 minutes throughout a day with a goal of increasing to 60 minutes a day. This can be done in multiple 10-minute sessions or in 1 longer session.
- Mode: (*what kind?*) - Structured (walking, running, cycling, swimming, resistance training) or unstructured (gardening, household cleaning, walking to work)

Major Components of an Exercise Session

- Warm-up: 5 minutes of light activity, such as slow walking or cycling
- Activity: Cardiovascular, muscular strength or flexibility training
- Cool down: 5 minutes of light activity with some flexibility exercises built in

Suggestions for Each Type of Exercise

Cardiovascular:

- Vary your workout each session.
- Be creative! Enhance your exercise routine by walking throughout the day: during lunch and coffee breaks, around the house during commercials.

- Choose a pace that feels good to you; use the Ratings of Perceived Exertion scale or the "Conversation Rule": you should be able to converse while exercising.
- Take slow, deep breaths and "think tall" to maintain good posture.
- **Types of cardiovascular training:** walking (outside, treadmill), cycling (outside, stationary bicycle, ergometer) and swimming.



Strength:

- Perform each movement through a complete range of motion.
- Do not hold your breath while strength training. Instead, exhale or breathe out while pushing the weight up or out and inhale or breathe in while letting the weight down or in. "Think tall" to maintain your posture.
- If your goal is to increase your muscular endurance, you should use lighter weights and perform eight to 12 repetitions.
- If your goal is to increase your muscular strength, you should use heavier weights and perform five to eight repetitions.
- **Types of strength training:** Weight machines, free weights, plastic tubing, "toys" (medicine balls, plastic buoys), and circuit training

Flexibility/ Functionality:

- The focus of flexibility/functionality work is to improve range of motion, balance, coordination, and ability to carry out the regular activities of daily living.
- Flexibility training should be incorporated before and after every cardiovascular and strength workout.
- Be sure to hold stretches and progress slowly.
- Every muscle group used in a workout should be thoroughly stretched. Spend more time on tight muscle groups.
- Stretching should not be painful.
- **Types of flexibility training:** Stretching, Yoga, Pilates

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