

Physical Activity for Adults

Physical activity means moving your body to use energy. Regular physical activity and physical fitness make important contributions to your health, sense of well-being, and maintenance of a healthy body weight.



For health benefits, the 2005 Dietary Guidelines for Americans recommends that adults get at least 30 minutes of moderate physical activity most days, preferably every day. This is above usual activity, unless your job includes lots of vigorous movement. Moderate physical activity is equal to walking two miles in 30 minutes, which uses about 150 calories a day, or approximately 1,000 calories a week.

Most people can obtain greater health benefits by exercising longer or more vigorously. Getting 60 minutes of moderate to vigorous physical activity on most days will prevent weight gain, while getting up to 90 minutes will lead to weight loss, if you do not consume more calories.

Over 50% of American adults do not get the recommended amount of regular physical activity, and 26% of all adults are not active at all. Inactivity is more common among women than men and increases with age. In general, people with higher income and education are more active than those with lower income and less education.

Being inactive is one of the greatest risks for obesity and for developing high blood pressure, cardiovascular disease, type 2 diabetes, certain

types of cancer, and osteoporosis. People with high blood pressure who do moderate regular exercise can lower their blood pressure and may reduce the amount of their medication. Sedentary, or inactive, people who walk briskly for just 30 minutes daily can cut their risk of death in half.

GETTING STARTED

Most of us are not completely inactive. You may clean your house, mow the lawn, rake the leaves, wash and wax your car, and haul the groceries. All these count as physical activity. When you are ready to do more than the activities created by your job or family responsibilities, you should consider changing from routine physical activity to a more formal exercise program.

Choose an Activity You Enjoy: Otherwise, you probably won't be able to stick with it for the rest of your life. Walking is one of the most convenient, inexpensive exercise programs. If walking doesn't challenge you, then try another activity like bicycling, swimming, a line-dancing class, or join a health club.

Make Physical Activity a Priority: It is the foundation of your wellness program. Start with a daily goal of at least 30 minutes of moderate intensity physical activity. Shorter spurts of activity, which can add up during the day, count toward that total, also. If time is tight, divide your activity into several 10-minute sessions throughout the day.

Make Small Changes Over Time: Gradually increase your level of activity. Take it slow and easy at first, building up your endurance gradually until you reach at least 30 minutes a day. Going slowly helps prevent sore muscles and injury. It is discouraging to wake up stiff and sore the morning after exercising.

COMBINE SEVERAL TYPES OF PHYSICAL ACTIVITIES

There are 3 different types of physical activity:

Aerobic activity strengthens the heart and lungs, uses lots of oxygen and burns many calories (e.g., brisk walking, bicycling, swimming, tennis, and using cardio machines).

Resistance, Strength Building, and Weight-bearing activities work the large muscles of the legs, arms, chest, and stomach (e.g., walking, carrying a child, using free weights and weight machines). This type of exercise helps increase the percentage of your body composition that is muscle, which makes it easier for you to lift, move, and carry things. Having more muscle also means you will burn more calories at rest than those who have less muscle, because your metabolism will be higher.

Balance and Stretching activities burn fewer calories, increases muscle length and movement of joints to help you reach, stretch and bend, reduces muscle tightness and prevents injuries. (e.g., yoga, gentle stretching, dancing and martial arts)

A well-rounded program should include all three types of physical activity every week, doing different types on alternate days. Aerobic exercise should be the center of your program, because it keeps your heart and blood vessels in good shape. Each aerobic session should include a five to 10-minute warm-up (walking/stretching), followed by continuous aerobic exercise for 20-30 minutes, then a 10 to 12-minute cool-down.

Generally, begin and end with stretching activities every time you exercise. Stretching is most beneficial during cool-down, when muscles are “warmed up” and flexible. Gradually work muscle-strengthening activities into your routine.

BUILDING AN EXERCISE PROGRAM

Using walking as the example, here are the steps for building an exercise program:

- Consult a health care provider (if you have a chronic health problem, are a man over age 40 or a woman over 50).
- Find your target heart rate.

- Choose a time of day and start walking twice a week.
- Gradually increase the number of times you walk each week, then increase the distance that you walk.
- When you can walk several miles without feeling tired, add some warm-up and cool-down exercises.
- Gradually add some muscle-strengthening activities to your routine.

IMPROVE YOUR FITNESS

Exercise at a level that will improve your fitness without overdoing it. Here are two ways to determine if you are exercising at the appropriate level for you.

Talk Test: You should be able to talk easily during moderate intensity exercise. Test yourself by talking to a buddy, counting out loud, or reciting a nursery poem at intervals during your exercise period. If you become winded or too out of breath to carry on a conversation, then your activity level is vigorous.

Heart Rate: Check your heart rate, or pulse, during the intense (aerobic) portion of your exercise. Your heart rate is measured by counting your pulse beats for 10 seconds, counting the first beat as zero.

Maximum heart rate is the fastest your heart can beat during very hard exercise. It varies from person to person. To estimate your maximum heart rate, subtract your age from 220. For example, a 50-year-old’s estimated maximum age-related heart rate is: $220 - 50 \text{ years} = 170 \text{ beats per minute (bpm)}$.

Target heart rate is the number of times your heart should beat per minute during exercise. (It goes down as you age.)

During moderate-intensity physical activity: Your target heart rate should be 50 to 70% of your maximum heart rate. To figure the target heart rate of a 50-year-old with a maximum heart rate of 170 beats per minute:

- (50% level) $170 \times 0.50 = 85 \text{ bpm}$, and
- (70% level) $170 \times 0.70 = 119 \text{ bpm}$

This person’s target heart rate should be 85-119 bpm during moderate-intensity physical activity.

During vigorous-intensity physical activity: Your target heart rate should be 70 to 85% of your maximum heart rate. For example, a 35-year-old person's maximum age-related heart rate is: $220 - 35 \text{ years} = 185 \text{ beats per minute (bpm)}$.

The 70% and 85% levels of this are:

- (70% level) $185 \times 0.70 = 130 \text{ bpm}$, and
- (85% level) $185 \times 0.85 = 157 \text{ bpm}$

Therefore, a 35-year-old's target heart rate should be 130-157 bpm during vigorous physical activity.

To improve fitness, your heart rate should be kept within your target heart rate range for 20-30 minutes. Be aware that exercising at a higher intensity will raise your chances of muscle injury or heart problems.

When **beginning** an exercise program, aim for a target heart rate at the 60% level. This is 18 pulse beats for 10 seconds for a person 40 years old. An **intermediate** level is a target heart rate of 75%, and an **advanced** level is a target heart rate of 85%.

Two places to check your pulse easily:

The radial artery: One artery is located in each of your wrists. To find, place your index and middle finger at the base of your thumb and move them down toward your wrist until you feel your pulse.

The carotid artery: Located in the neck, the carotid artery is just under the jaw on either side of the windpipe. Use your fingers, not your thumb, and press in gently. *Never press both carotid arteries at the same time.*

WALKING

Walking is the perfect form of exercise for the majority of people. It is free and can be done anywhere. If you haven't exercised recently, consider wearing a pedometer to see how many steps you take per day.

Every step you make counts, whether it is around the local walking track or to and from your living room. For a healthy lifestyle, take 10,000 steps every day. According to a Harris poll, the average American walks 5,310 steps a day, or about half the number of steps needed for a good fitness level.

Find a place to walk on flat ground. Choose two routes and alternate so you won't get bored. Measure how long it takes you to walk the mile (5,280 feet) at a comfortable pace. This is your starting time, or baseline value.

If you have not walked recently, you will be out of breath at first. Stop when you get tired, but go back and walk again the next day. Gradually you will become more fit and it will be easier. Swinging your arms makes walking a total body activity. By walking fast, swinging your arms, and climbing some hills, you can become an aerobic walker.

You will need to walk longer to burn the same number of calories as running a particular distance. In other words, the number of calories you burn during exercise is usually determined by how far you go, not by how fast you go. This is true if your heart rate is at least 70% of your maximum rate while you are exercising.

Choosing Walking Shoes: Invest in a good pair of walking, not running, shoes. Wear shoes with good arch support and plenty of room for your toes to extend fully. Shoes should fit snugly so that your heels do not slip when you walk. Choose shoes made of a material that breathes, such as leather or nylon mesh.

Buy your shoes from a store with knowledgeable sales staff. Show your old shoes to the salesperson so they can see how the shoes have worn. For example, if your shoes are more worn on the outside edge of the heels, you need good heel cushioning. You need shoes with more stability if there is wear on the side of the soles or if the part of the shoe that holds your heel is rolling. If your feet bulge over the sides of the shoes, then you need a wider width.

BALANCE AND STRETCHING

Balance and stretching activities improve flexibility and physical stability to reduce risk of injuries. Stretching increases your flexibility and range of motion around a joint.

How flexible are you? Test the flexibility of the muscles in your back and the back of your legs by sitting on the floor with your legs straight out in front of you. Keep your knees slightly bent. Slowly stretch forward to see if you can touch your toes. Stretch slowly without bouncing. Repeat this

movement several times. Can you touch or nearly touch your toes? If you cannot, then you need to do some flexibility exercises.

Remember a few simple rules while stretching:

- Stretch slowly. Fast movements are more likely to cause injury.
- Don't stretch too far. Stretching should cause tension in the muscle but not pain.
- Don't bounce while you are holding the stretch. Bouncing tightens the muscle you are trying to stretch.
- Breathe slowly and naturally while you are stretching. Never hold your breath.
- Relax, enjoy, and feel good about yourself!

OLDER ADULTS NEED EXERCISE

You are never too old to benefit from the better health that comes from regular physical activity. You have more energy and vitality, joy, and peace of mind. Researchers at Tufts University in Boston found that weight training reverses the loss of muscle mass due to aging. Muscle-strengthening exercises can reduce the risk of older adults falling and fracturing bones and can improve their ability to live independently.

MAINTAINING A HEALTHY WEIGHT

Almost 2/3 of American adults are overweight or obese. Being overweight or obese increases the risk for chronic diseases, such as heart disease, stroke, high blood pressure, type 2 diabetes, osteoporosis, arthritis, breathing problems, and certain cancers.

A healthy weight is important to enjoying a long, healthy life. Think of exercise as long-term maintenance for a healthy body and healthy weight.

Regular physical activity is a key element of any weight loss effort and is important for controlling weight. It is a reliable predictor of successful permanent weight loss, according to the National Weight Control Registry. Eighty-nine per cent of its participants lose weight by combining physical activity with a well balanced, lower calorie diet.

Another key to controlling weight is eating fewer calories while increasing your physical activity. The Dietary Guidelines for Americans calls for a reduction of 500 calories per day to lose weight.

This can be achieved either by eating fewer calories and/or by exercising to burn more calories.

Turn off the TV: Replace sedentary behavior, such as watching TV and videos, with physical activities requiring more movement. The amount of time spent watching TV is the most powerful behavioral predictor of obesity. The risk of obesity increases by 25% for every two hours of TV viewed daily. This link is almost as strong as the relationship between smoking and lung cancer, according to Harvard's School of Public Health.

Get Moving: To prevent the gradual accumulation of excess weight in adulthood, up to an additional 30 minutes of physical activity may be required over the 30 minutes per day recommended for other health benefits and to reduce chronic disease risk. Calorie control in your diet is also advised.

Stay Lean and Prevent Chronic Disease: If you are of ideal weight, physical activity can help you maintain your weight and reduce your risk of developing a chronic disease. Adults should get a minimum of 30 minutes of moderate to vigorous physical activity most days, preferably every day.

Prevent Weight Gain: If you are overweight, exercise can help you lose weight by burning calories. Sixty minutes of moderate to vigorous exercise on most days prevents weight gain, provided there is no increase in calories eaten.

Lose Weight: Ninety minutes of moderate to vigorous physical activity daily will lead to weight loss. You are more likely to keep weight off if you are active.

Keep the Muscle, Lose the Fat: Combine exercise with dieting to keep muscle and lose body fat. Weight lost by dieting alone tends to come from both body fat and muscle. Losing active muscle tissue reduces the number of calories you burn. Exercise, on the other hand, burns calories and preserves or increases lean muscle mass, which enables you to burn more energy even when resting. Muscle burns more calories than fat. In other words, it takes more energy (calories) to keep muscle alive than it does to keep fat tissue alive.

The Most Effective Way to Lose Weight:

Research shows that combining a reduced-calorie diet with exercise is best. Cutting calories helps reduce overall body weight. However, exercisers lose more body fat while dieters lose more muscle. If you diet without exercising to lose weight, you most likely will regain most of the weight within a year or two.

Lose Weight Gradually: If you need to lose weight, you can improve your health and feel better just by losing five or 10 pounds over the next few months. Set a reasonable weight loss goal of one to two pounds a week.

Metabolism Slows with Age: After the age of 40, the average inactive person's resting metabolic rate slows down 10% every 10 years. To maintain your weight as you age, move more and eat less.

What is resting metabolic rate? It is the energy (calories) your body burns to maintain involuntary functions, or basic needs like breathing, perspiring and circulating your blood. Here is how your body uses the calories from foods eaten every day: basic metabolism (60%); physical activity (30%); digesting food and absorbing nutrients (10%).

MAKE EXERCISE A REGULAR PART OF YOUR DAY

Be patient. Once you've made physical activity a part of your daily routine, stick with it.

- Develop a group of supportive co-workers, friends or family members who will help you stay motivated. They can join you for evening walks, weekend hikes, bike rides, golf or tennis.
- Vary your activities so exercise does not become monotonous. Remember that it takes about 6 months for a new behavior to become a lifestyle change.
- Reserve time in your schedule for physical activity. Lack of time is a common excuse for not exercising.
- No matter what activity you choose, it can be done all at once, or divided into two or three sessions during the day. Even activities lasting only 10 minutes count toward your total. The accumulated total is what is

important, both for health and for burning calories.

- The ideal time to exercise is early in the morning. This “jump starts” the metabolism and keeps it elevated for up to 24 hours, allowing you to burn more calories throughout the day. If you are unable to exercise in the morning, however, make sure that you do it later in the day.
- Never use bad weather as an excuse to stop exercising. Go to the mall for a walk, rent or buy exercise videos, investigate exercise programs on TV, or join a health club for a limited period of time.
- Don't blame yourself for missing a session and give up. There will be times when you can't exercise due to job demands or a sick child. Focus on your successes, and start again tomorrow or as soon as possible.
- There will be some days when you can't bear the thought of exercise. Take the first few steps anyway, and you will most likely complete your entire workout. Listening to music while you exercise will help you work harder without even realizing it.
- Plan for the long haul. Choose activities that can become lifetime habits. Make your exercise program fun, flexible and varied. If you enjoy it, you will continue it.
- Be consistent. It is what you do over time that counts. Balance what you eat with your physical activity over several days. No need to worry about just one day or one meal.
- Be proud of your progress. Reward yourself for continuing your exercise program. For example, go out to breakfast with friends after walking a total of 25 miles. Or, treat yourself to new CD, a massage, a health club membership, or tickets to a sporting event. You'll be hooked on exercise before you know it!

Think exercise makes you hungry? Most people find that physical activity makes them less hungry. Low fat, high carbohydrate snacks provide quick energy needed during physical activity, plus your body breaks these down and digests them more quickly than high fat foods.

DRINK PLENTY OF FLUIDS

To avoid dehydration, drink at least eight cups of fluid every day. Make water your primary beverage. Drink a cup of water before exercise, at least ½ cup every 15 minutes during exercise, and additional water afterwards. When involved in an active sport that makes you sweat, drink plenty of water throughout the day, not just during the activity.

THE BOTTOM LINE

- Get at least 30 minutes of moderate physical activity on most days, preferably every day.
- If you are inactive, become active.
- If you are already active, maintain or increase your activity.
- If you are over age 40 (men) or over 50 (women) or have a chronic health problem, see a health care provider before increasing your activity level.
- Help children get at least 60 minutes of moderate physical activity daily.
- Choose activities, recreational events or structured programs that fit your lifestyle.
- Stay active throughout your life.

For more information about USDA's latest recommendations on physical activity for all age levels, request [HGIC 4030, *Physical Activity Pyramid*](#) and [HGIC 4032, *Physical Activity for Children*](#). For related information, ask for: [HGIC 4000, *2005 Dietary Guidelines for Americans*](#); [HGIC 4010, *MyPyramid*](#); [HGIC 4011, *MyPyramid for Kids*](#); and [HGIC 4151, *Fluid Needs*](#).

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