

# Fitness

You have probably heard by now that physical activity is good for you. It helps you manage your body weight and prevent gradual weight gain. This may reduce your risk of certain health problems. Yet with all the benefits of being physically active, maybe you haven't *quite* gotten around to starting a regular activity routine.

If you are having trouble becoming physically active, you are not alone. In fact, only 48 percent of U.S. adults get the minimum recommended level of physical activity each week. What you should know is that regular physical activity may help prevent heart disease, as well as breast and colon cancers, stroke, type 2 diabetes, and osteoporosis. All you need to get started is a good pair of walking shoes.

## **What is healthy physical activity?**

When some people think of physical activity, they think of playing sports or working out at a gym. If you don't like doing those sorts of things, then the whole idea of being physically active may not be appealing.

But being physically active doesn't have to mean playing basketball, doing push-ups, or jogging. Activities that require as much or more effort as 10 minutes of brisk walking count as healthy physical activity. For instance, if you manage a household and spend much of your day running up and down stairs, vacuuming floors, and chasing after toddlers, you may be getting plenty of healthy physical activity at home. If you work at a job that involves a lot of walking or lifting, you



may be getting plenty of healthy physical activity at work.

One type of physical activity is aerobic activity, in which you move large muscles



in your arms, legs, and hips over and over again. During aerobic activity, you breathe faster and more deeply and your heart beats faster.

If your breathing and heart rate increase to a moderate degree, your activity is considered moderate intensity. Put another way, moderate-intensity physical activity is any activity that burns 3.5 to 7 calories per minute. An example would

be walking on a level surface at a brisk pace (about 3 to 4 miles per hour).

If your breathing increases so much that it is difficult to carry on a conversation, your activity is considered vigorous intensity. Vigorous-intensity activity is any activity that burns more than 7 calories per minute. An example would be jogging.

Below are some moderate and vigorous physical activities that you might consider.

<b>Moderate and Vigorous Physical Activities</b>		
	<b>Moderate activities</b>	<b>Vigorous activities</b>
<b>Leisure activities</b>	Walking, ballroom dancing, leisurely bicycling, roller skating, canoeing	Jogging, bicycling fast or uphill, jumping rope, swimming continuous laps
<b>Sports</b>	Golfing, softball, badminton, downhill skiing	Singles tennis, beach volleyball on sand, basketball, soccer, cross-country skiing
<b>Home activities</b>	Pushing a power lawn mower, gardening, raking the lawn, moderate housework	Pushing a hand mower, heavy or rapid shoveling (more than 10 pounds per minute), carrying items weighing 25 pounds or more up a flight of stairs
<b>Occupational activity</b>	Maid service, waiting tables, feeding or grooming farm animals, manually milking cows, picking fruits or vegetables, walking while carrying a mailbag	Teaching an aerobic dance class, heavy farm work

## Who should see a doctor before becoming physically active?

To design a safe, effective physical activity program, talk with your doctor before becoming physically active if you:

- have a chronic, or long-term, disease (such as coronary artery disease or diabetes) or have risk factors for a chronic disease
- are older than 50 and plan to do vigorous physical activities
- are pregnant

## How much physical activity do I need?

To reduce the risk of chronic disease, adults should engage in:

- moderate-intensity physical activity for 30 minutes or more on 5 or more days of the week, OR
- vigorous-intensity physical activity for 20 minutes or more on 3 or more days of the week

This physical activity should be in addition to your routine activities of daily living, such as cooking or spending a few minutes walking from the parking lot to your office.

If you are older than 65, you should still engage in regular physical activity. Doing so will:

- help you keep your strength so that you can stay independent
- improve your balance so that you are less likely to fall and break bones

- help prevent or delay some of the diseases linked with aging, such as osteoporosis (OSS-tee-oh-puh-ROH-suhss)
- help prevent constipation
- help you sleep better at night

If you have not been physically active for a long time, you may need to start slowly and then work your way up as you become more fit. For example, if you do not feel up to walking for 30 minutes, try walking for 10 minutes. Then increase your walking time by 5 minutes each week until you reach 30 minutes.

If walking at a speed of 3 to 4 miles per hour is too fast for you, it's okay to walk at a slower pace. As long as you are breathing hard, it's considered moderate intensity. A good rule of thumb is to pay attention to how hard it is for you to talk while being active. If you can talk without any trouble at all, you are not working hard enough. If you can't talk at all, you're working too hard.

## Other ways to be active

As mentioned, one form of physical activity is aerobic activity. There are also three other types of physical activity:

- strength-training activities
- stretching activities
- balance activities

To be physically fit, adults should do a combination of aerobic, strength-training, and stretching activities. In addition to these three, older adults should also do balance activities.

## Strength-training activities

Strength-training activities increase the strength and endurance of your muscles. Examples of strength-training activities include working out with weight machines and free weights.

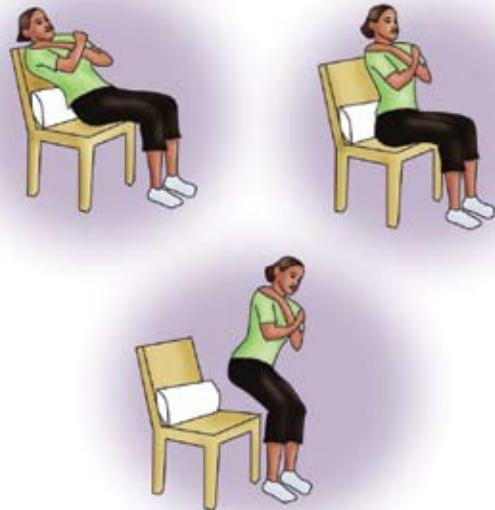
You do not need to invest in a gym membership or buy expensive home gym equipment to do strength-training activities. Hand, wrist, and ankle weights are less costly options. Also, homemade weights, such as plastic soft drink bottles filled with sand or water, may work just as well. You can also use your own body weight, doing activities such as push-ups, pull-ups, and sit-ups. You could also buy a resistance band at a sporting-goods store. It looks like a giant rubber band, and stretching it helps build muscle.

In each strength-training session, you should do 8 to 10 different activities using the different muscle groups throughout your body, such as the muscles in your abdomen, chest, arms, and legs. Repeat each activity 8 to 12 times, using a weight or resistance that will make you feel tired. When you do strength-training activities, slowly increase the amount of weight or resistance that you use. Also, allow 1 day in between sessions to avoid excess strain on your muscles and joints.

Don't hold your breath during strength-training activities. That could cause changes in your blood pressure. It may seem strange at first, but you should breathe out as you lift something, and breathe in as you relax.

Below is a strength-training activity that you can do at home, and all that you need is a chair and some pillows. It's called the "Chair Stand," and it strengthens muscles in your abdomen and thighs. It also helps improve your balance.

1. Place pillows on the back of a chair.
2. Sit toward the front of the chair, knees bent, feet flat on the floor.
3. Lean back on the pillows in a half-reclining position. Keep your back and shoulders straight throughout the activity.
4. Raise your upper body forward until sitting upright, using your hands as little as possible (or not at all, if you can). Your back should no longer lean against the pillows.
5. Slowly stand up, using your hands as little as possible.
6. Slowly sit back down. Pause.
7. Repeat 8 to 15 times.



## Stretching activities

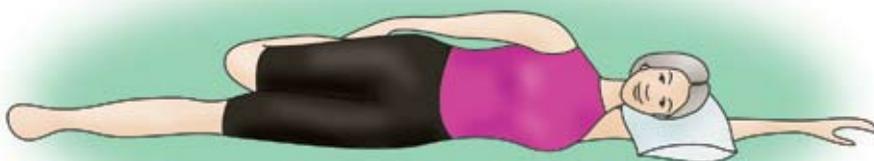
Stretching can help you be more flexible, allowing more freedom of movement. Moving more freely will make it easier for you to reach down to tie your shoes or look over your shoulder when you back the car out of your driveway.

You should do stretching activities after your muscles are warmed up—for example, after strength training. Stretching your muscles before they are warmed up may cause injury. Also, stretching should never cause pain, especially joint pain. If you feel pain when you stretch, you are stretching too far.

Below is an example of an activity that

stretches the muscles in the front of your thighs:

1. Lie on your side on the floor. Your hips should be lined up so that one is directly above the other one.
2. Rest your head on a pillow.
3. Bend the knee that is on top.
4. Reach back and grab the heel of that leg.
5. Gently pull that leg until the front of your thigh stretches.
6. Hold this position for 10 to 30 seconds.
7. Reverse position and repeat.
8. Repeat 3 to 5 times on each side.



## Balance activities

As you get older, your risk of falling due to losing your balance increases. To prevent falling injuries, you should do activities to maintain or improve your balance. Below are two balance activities that you can do almost anytime, anywhere, and as often as you like, as long as you have something sturdy nearby to hold onto if you become unsteady.

- Walk heel-to-toe. Position your heel just in front of the toes of the opposite foot each time you take a step.
- Stand on one foot (for example, while waiting in line at the grocery store or at the bus stop). Alternate feet.



## Physical activity and health problems

More and more, research is suggesting that physical activity can help prevent or even help treat certain health problems.

### Overweight and obesity

Being overweight or obese is a common struggle in the United States: Sixty-two percent of U.S. women older than 20 are overweight or obese. Being overweight or obese increases your chances of getting many diseases, including:

- coronary artery disease
- type 2 diabetes
- stroke
- cancer of the colon, breast, endometrium, thyroid, esophagus, kidney, gallbladder, and pancreas

When you're overweight or obese, extra fat is deposited in many places in your body. The body fat that is most dangerous to your health is visceral (VISS-ur-uhl) fat, which surrounds your stomach, intestines, and other internal organs. Having too much visceral fat increases your risk of heart disease, diabetes, and other diseases. It tends to increase in women after menopause. The good news is that becoming physically active can help overweight postmenopausal women reduce the amount of visceral, as well as total, fat.

### Coronary artery disease (heart disease)

Physical activity can help reduce your risk of heart disease. It doesn't have to be vigorous activity. Moderate physical activity for at least 30 minutes on 5 or more days of the week can help reduce your heart disease risk by:

- increasing HDL (good) cholesterol (koh-LESS-tur-ol)
- lowering blood pressure
- helping you maintain your weight (in addition to eating healthy foods and limiting how much you eat)
- improving the fitness of your heart

Although your risk of getting heart disease goes up after menopause, you should not wait until menopause to start becoming active. Research suggests that women who have high LDL (bad) cholesterol levels and other heart disease risk factors before menopause may be more prone to artery problems after menopause. So the sooner you get moving, the better.

For more information on coronary artery disease, see the *Heart Disease* chapter on page 15.



## Stroke

As is the case with coronary artery disease, the risk of stroke increases as women age. The most common type of stroke results when a blood clot blocks an artery carrying blood from the heart to the brain. Some research has shown that physical activity, including brisk walking, can lower women's chances of having this type of stroke. Research has also shown that women who had been inactive but became active in middle or older age had a lower stroke risk than those who stayed inactive. So it is never too late to start lowering your risk of stroke.

For more information on stroke, see the *Stroke* chapter on page 37.

## Type 2 diabetes

Physical activity can help people who have type 2 diabetes, as well as people who have pre-diabetes—higher than normal blood sugar levels that often lead to type 2 diabetes. In fact, research suggests that lifestyle changes—such as getting more physical activity, eating a healthier diet, and losing excess weight—are at least as effective as drug therapy for delaying type 2 diabetes.

If you already have type 2 diabetes, physical activity can help keep your blood sugar levels at a normal level. One research study showed that people with type 2 diabetes were able to lower their blood sugar levels with either aerobic activities or strength-training activities. People who did both activities were able to lower their blood sugar levels even more.



For more information on type 2 diabetes and pre-diabetes, see the *Type 2 Diabetes* chapter on page 69.

## Cancer

Research suggests that physical activity may reduce your risk of breast and colon cancers. Some experts think that one of the ways that physical activity may reduce your cancer risk is by reducing body fat. Fat may help cause cancer by releasing substances, including hormones such as estrogen and insulin, that may promote cancer cell growth.

Research also suggests that physical activity can help if you already have cancer. Although chemotherapy or radiation treatment can make you feel too tired for much physical activity, even some physical activity may:

- help you feel less tired, anxious, and depressed
- reduce pain
- help your immune system recover from chemotherapy

For patients with breast cancer receiving chemotherapy, physical activity may also:

- reduce hot flashes and sweats
- prevent muscle loss and inappropriate weight gain

For patients with cancer in general, once treatment is finished and the cancer is gone, staying active may help:

- prevent your cancer from returning
- reduce your chances of dying of cancer

If you are being treated for cancer or have recovered from an attack of cancer, be sure to talk with your doctor before starting any physical activity routine.

For more information on cancer, see the *Cancer* chapter on page 51.

### **Osteoporosis**

Research suggests that physical activity may help prevent osteoporosis, a disease that weakens bones. To help prevent osteoporosis, you should do weight-bearing activities. These are activities in which your body works against gravity. Jogging, walking, stair climbing, and dancing are all weight-bearing activities because you are holding up your body against the force of gravity. Weight lifting, or strength training, is another type of weight-bearing activity. In contrast, swimming is an example of an activity that is not weight bearing because the water is helping to hold up your body.

Engaging in weight-bearing activities helps reduce your risk of osteoporosis by:

- helping you grow healthy bones during your teenage years

- helping you maintain healthy bones in adulthood
- reducing your rate of bone loss during aging

For more information on osteoporosis, see page 225 of the *Healthy Aging* chapter.

### **Arthritis**

Research suggests that physical activity can reduce your chances of getting osteoarthritis (OSS-tee-oh-ar-THREYE-tuhss). More common in women after 55 years of age, this type of arthritis causes pain most often in the hip, knee, spine, and finger joints.

For more information on osteoarthritis, see page 229 of the *Healthy Aging* chapter and page 360 of the *Pain* chapter.



## Does physical activity have positive effects on the mind?

### Depression and anxiety

Research suggests that regular physical activity:

- reduces feelings of mild to moderate depression and anxiety
- improves mood
- increases feelings of well-being

Physical activity is not a cure for depression or anxiety. But it may help you manage your symptoms by:

- giving you a sense of success, which can boost your confidence
- helping you meet other people
- taking your mind off your problems

Also, physical activity may help you feel better by:

- increasing the level of substances in the brain that improve your mood
- reducing levels of stress hormones

Research suggests that, for some people, physical activity can work as well as an antidepressant in treating major depression. But if you are now taking an antidepressant, do not stop taking it on your own. You should discuss with your doctor how physical activity might fit into your overall treatment plan before making any changes.

For more information on major depression and anxiety disorders, see the *Mental Health* chapter on page 207.

### Quitting smoking

As every smoker knows, quitting smoking can be hard to do. Every year, many smokers try to quit but only a few succeed. One research study suggests that vigorous physical activity can help women quit smoking, even women who have been heavy smokers for many years. As an added bonus, vigorous physical activity can also help you gain less weight after you quit.

It is not known for sure how vigorous physical activity might help you quit smoking. One way it might help is by reducing stress, which might reduce your urge to smoke.

### Cognitive decline during aging

As we age, we sometimes forget things. Maybe we no longer think as quickly as we used to. Experts call this “cognitive decline,” where “cognitive” refers to thinking, learning, and memory, as opposed to emotions.

It was once thought that cognitive decline was a normal part of aging. But



research now suggests that staying physically active as you get older may slow cognitive decline, at least for a while. Some experts think that physical activity may slow cognitive decline in part by increasing blood flow to the brain. In addition, physical activity may even help new brain cells grow.

### **Physical activity during and after pregnancy**

Health experts say that most pregnant women should get 30 minutes or more of moderate physical activity each day. Such activity offers many benefits. It can:

- lessen some of the discomforts of pregnancy
- give you more energy and make you feel better
- improve your posture
- increase your chances of an early recovery after delivery

Moderate activity during pregnancy may also reduce your risk of:

- preeclampsia (pree-ee-KLAMP-see-uh), a condition that involves high blood pressure and other problems during pregnancy
- depression

Physical activity during and after pregnancy can also help keep you from gaining too much weight. Women who gain too much weight during pregnancy and do not take it off afterward are more likely to be obese 8 to 10 years later.

When you are being active during pregnancy, do not push yourself to the point of exhaustion. If you cannot talk easily while you're active, you may be overdo-



ing it. Also, avoid being physically active during very hot weather. And be sure to drink plenty of water so that you do not become dehydrated.

### **Pregnancy**

Check with your doctor before becoming active to ensure the safety of you and your baby. Your doctor may ask you to avoid some or all physical activity if you have certain medical conditions or complications involving your pregnancy.

For information on preeclampsia, see page 179 of the *Pregnancy* chapter.

### **Physical activity and menopausal symptoms**

Menopause affects every woman differently. Common symptoms of menopause include:

- hot flashes (feelings of warmth)
- trouble sleeping through the night
- mood swings, feeling crabby, crying spells

If you have hot flashes, physical activity is probably not going to reduce them. But research suggests that being physically active may offer other benefits, such as:

- improved sleep quality
- fewer feelings of nervousness, anxiety, and depression

### **Physical activity tips**

With all the things that you have to do each day, finding the time and motivation to get moving can be challenging. Here are some suggestions for ways to get started:

- If you do not have 30 minutes in one stretch to set aside for moderate physical activities, try being active in three 10-minute periods throughout the day.
- Join a sports team. For example, you may work for a company that has a baseball team that you could join.
- Join a hiking or running club.
- Use stairs instead of the elevator.
- Walk or bike to work or to the store.
- Be physically active at lunch with co-workers, family, or friends.
- Take a break at work to stretch or take a quick walk.
- Go dancing with your partner or friends.
- Plan active vacations rather than only driving trips.
- Wear a pedometer (a small tool worn on your belt that counts the number of steps you take). Try to walk 10,000 steps each day.
- While watching TV, use a stationary

bicycle or treadmill. Another idea is to work out with hand weights.

- Spend time in active play with your kids. While you're at it, you could also teach your kids about the health benefits of physical activity. Children and adolescents should be engaging in at least 60 minutes of moderate-intensity physical activity on most, and preferably all, days of the week.
- If you are having trouble finding the time or motivation to be physically active, figure out what is holding you back and then brainstorm with family and friends about ways to overcome these barriers.

Perhaps the most important tip, though, is to find physical activities that you enjoy. You are more likely to keep physically active if you are having fun. ■

### **Safety Tips**

While you are being physically active, be sure to keep safety in mind. We have already mentioned some safety tips, such as starting slow if you have not been physically active for a long time. Below are a few more safety tips:

- Use safety equipment. For example, wear a helmet for bike riding or the right shoes for walking or jogging.
- Drink plenty of fluids when you are physically active, even if you are not thirsty.
- Always bend forward from the hips, not the waist. If you keep your back straight, you're probably bending the right way. If your back "humps," that's probably wrong.

# One Woman's Story

After turning 40, I realized that I was at my highest weight ever and my blood pressure was borderline high. Since I have a strong family history of heart disease, I knew that I needed to take action.

I started by walking on the treadmill. After losing the first few pounds, I really liked the feeling of getting healthy, so I started to add to my home gym. The first addition was a set of dumbbells and a bench purchased at a yard sale. I had absolutely no clue how to use them, so I read countless books and researched on the Internet. I wanted to learn everything I could about physical activity and fitness.

I'll admit that there were days when I wanted to give up. I was working out on my own, but it would have been very helpful to have someone to keep me motivated. However, I didn't quit, and after 24 weeks I managed to lose 48 pounds! I loved physical activity and challenging myself, and I also loved the fact that I felt better at 40 than I did when I was 20.

For Christmas, my husband gave me a gift certificate for time with a personal trainer. Working out with a trainer helped me realize how important it could be to have someone there to count on for inspiration and support. For many people, having that helping hand can make the difference between success and failure.

I knew then that I wanted to be a trainer myself. I began by training family and friends; after great success, I became certified through the American Council on Exercise. I wanted to help people take control of their health and maybe learn something about themselves along the way. I truly want all my clients to succeed. I want them to have the feeling I had when I reached my goal—a feeling of accomplishment and well-being that comes from making healthy choices.

I eventually opened a private studio. I want to help the people who might not want to go to a conventional gym for one reason or another, but want the guidance and structure needed to be successful with their specific goals. I have improved my quality of life and want to help others do the same.

*Colleen*

**Oakdale, Pennsylvania**

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## For More Information...

### **Office on Women's Health, HHS**

200 Independence Ave SW, Room 712E  
Washington, DC 20201

Web site: [www.womenshealth.gov/  
FitnessNutrition](http://www.womenshealth.gov/FitnessNutrition)

Phone number: (800) 994-9662,  
(888) 220-5446 TDD

### **U.S. Department of Health and Human Services**

200 Independence Ave, SW  
Washington, DC 20201

Web site: [www.healthierus.gov](http://www.healthierus.gov)  
[www.smallstep.gov](http://www.smallstep.gov)

### **Division of Nutrition, Physical Activity and Obesity, CDC**

4770 Buford Highway NE, MS K-24  
Atlanta, GA 30341-3717

Web site: [www.cdc.gov/nccdphp/dnpa](http://www.cdc.gov/nccdphp/dnpa)  
Phone number: (800) 232-4636,  
(888) 232-6348 TTY

### **The President's Challenge**

501 N Morton, Suite 203  
Bloomington, IN 47404

Web site: [www.presidentschallenge.org](http://www.presidentschallenge.org)  
Phone number: (800) 258-8146

### **The President's Council on Physical Fitness and Sports**

Department W

200 Independence Ave SW, Room 738-H  
Washington, DC 20201-0004

Web site: [www.fitness.gov](http://www.fitness.gov)

Phone number: (202) 690-9000

### **Weight-Control Information Network, NIH**

1 WIN Way

Bethesda, MD 20892-3665

Web site: [www.win.niddk.nih.gov](http://www.win.niddk.nih.gov)

Phone number: (877) 946-4627

### **National Center on Physical Activity and Disability**

1640 W Roosevelt Rd

Chicago, IL 60608-6904

Web site: [www.ncpad.org](http://www.ncpad.org)

Phone number: (800) 900-8086 voice and  
TTY

### **Women's Sports Foundation**

1899 Hempstead Turnpike, Suite 400  
East Meadow, NY 11554

Web site:

[www.womenssportsfoundation.org](http://www.womenssportsfoundation.org)