



Intermittent Claudication

Causes, symptoms, and treatments of leg pain

This handout explains intermittent claudication. It includes information about its causes and symptoms, and how it is treated.

Walking and eating a healthy diet are things you can do to improve your symptoms. This handout will help you get started.

For people who have leg pain, everyday activities such as walking the dog, picking up the mail, or going shopping can be very difficult.

If you have pain in your legs when you walk, and the pain goes away when you rest, the problem may be *intermittent claudication*. This condition is a symptom of *peripheral arterial disease* (PAD). It is also called “hardening of the arteries” in the legs.

About PAD

Cardiovascular (heart) disease is one of the most common health problems in people age 65 years and older. *Atherosclerosis* is the buildup of *cholesterol*, *plaque*, and other fatty materials on the inside walls of the arteries. Arteries are the blood vessels that carry blood from the heart to the muscles and other tissues. The buildup inside the arteries narrows the vessel and reduces blood flow.

In PAD, atherosclerosis affects the arteries that carry blood to the legs. When not enough oxygen-rich blood reaches the legs, walking is painful. This condition is called intermittent claudication.

See Your Doctor

If you have leg pain when you walk, it is very important to see your doctor and be checked for PAD. PAD increases your risk of atherosclerosis in the arteries of your heart (*coronary* arteries) and brain (*cerebral* arteries). Coronary atherosclerosis increases your risk of having a heart attack, and cerebral atherosclerosis increases your risk of having a stroke.

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Symptoms

If you have intermittent claudication, the blood flow to your leg muscles is blocked. When you walk, you may feel:

- Aches or pains in your legs
- Leg cramps
- Easily tired
- Pain when walking uphill or walking quickly

You will also have less pain when you stop and rest. Pain is relieved when you are at rest because your muscles are not working as hard, and so they need less blood flow.

Risk Factors

These activities and conditions put people at higher risk for having PAD and intermittent claudication:

- Smoking
- High cholesterol
- Diabetes
- Obesity
- High blood pressure
- Increasing age
- Heredity

Treatments

You can do many things to lessen your pain from intermittent claudication. And, treatments for intermittent claudication may also reduce your risk of heart attack or stroke. Your doctor will recommend a treatment plan for you.

Lifestyle Changes

Some things you can do to treat your intermittent claudication are:

- Stop smoking, if you smoke.
- Eat a low-fat diet.
- Maintain a healthy weight, and lose weight if you are overweight.
- Exercise every day.

Medicines

Treatment for intermittent claudication may include medicines. If needed, your doctor may prescribe medicines that will:

- Lower your high blood pressure
- Lower your elevated cholesterol
- Reduce your risk of blood clots
- Open your blood vessels to increase blood flow

Surgery

Sometimes, surgery may be needed to increase blood flow to your legs. Talk with your doctor about whether surgery will help you.

Exercise

Before you begin any kind of exercise program, talk with your doctor.

Walking

Walking is a simple and very healthy form of exercise. It does not require any special equipment. All you need are a pair of comfortable, closed-toe shoes that do not cause calluses, and loose-fitting clothes.

You can walk anywhere – at the mall or inside your house, on a treadmill at home or at the gym, and outdoors. You can walk by yourself, in a group, or with a friend.

If you walk:

- Outside in the evening: Wear bright-colored clothes or reflectors.
- During the summer: Put on cool, lightweight clothes, a hat, and sunscreen. Bring a small water bottle that you can hang on your belt or carry.
- In the winter: Wear layers, a hat, and gloves.

Most rehabilitation programs involve walking 30 to 60 minutes every day. You can walk this all at once or in shorter sessions throughout the day.

Resting

For someone with intermittent claudication, a walking program must include both walking and resting. When your legs start to hurt, push yourself to walk as long as you can. When the pain is too much, stop and rest until it lessens. Then, start walking again. This causes the body to form new blood vessels around the ones with atherosclerosis.

Walking Tips

- **Push off with your toes.**
- **Land on your heel.**
- **Roll your foot from heel to toe, then push off again with your toes.**

Rest is the only way to relieve pain in your legs. But, once the pain lessens, it is good to continue your walk. Over time, you will likely be able to walk farther before the pain starts. Most people who walk regularly are able to walk farther without pain within 2 months.

Stretching

Begin each walk with gentle stretching. After you are done with your walk, repeat your stretching exercises to help cool down your muscles. This will help prevent muscle soreness. Talk with your doctor about the right stretches for you before you begin.

Here is a stretching exercise you may find helpful:

- Stand facing a wall, with your toes a few inches from the wall.
- Lean lightly against the wall, on your hands or forearms.
- Move one foot back about two foot-lengths. Keep your toes pointed toward the wall, with your back heel on the floor.
- Feel a stretch in the calf of your back leg. Hold the stretch for 5 to 10 seconds.
- Gently push away from the wall to release the stretch.
- Repeat 5 to 10 times on this leg.
- Repeat with your other leg.

Make Walking Fun

An exercise program needs to be fun. Be creative about where and when you walk, and who you walk with. A change in your routine can be very motivating and refreshing. One day you may want to check out fall leaves with a friend. Another day, you may want to walk to the library with a grandchild or neighbor. No matter what you do, with planning and creativity your walk can become something you look forward to every day.

Here are some things you can do to help make walking more enjoyable:

- Listen to music.
- Sing to yourself.
- Look at things around you – gardens, trees, and other scenery.
- Chat with a friend.
- Walk a dog – either your own, or borrow a friend or neighbor's.
- Plan your schedule for the next day, including when and where you will walk.
- Think of pleasant thoughts and memories.
- Walk through town and look in shop windows.

Staying on Track

Keep a Walking Diary

Keeping a walking diary may help you stay on track with your walking program. Each day, mark in your diary how far and how long you walked. You may also want to keep track of other things about your walk, such as what you wore, what you saw, what you did while you were walking, and how you felt afterward.

At the end of each week, add up the minutes you walked. It may take a little while to see benefits from walking, but be patient – over time, you should see progress.

Set Goals

You might find it helpful to set small goals for yourself, like walking past a certain mailbox, reaching a certain store in the mall, or doing a specific route in your neighborhood. When you reach these goals, write them down in your diary and congratulate yourself. You deserve it!

Stick with It

Be patient with yourself – remember, it takes time to build strength and stamina. If you stick with your walking program, you should be able to walk more in your daily life. If you miss a day or more of walking, get back on track as soon as you can.

When to Call Your Doctor

Call your doctor if you:

- Have questions about how long you should walk
- Have leg pain that does not go away when you rest
- Are resting more than walking
- Find that your ability to walk is getting worse
- Have any foot wounds

If you see a *podiatrist* (foot doctor), make sure this doctor knows you have intermittent claudication.

Other Lifestyle Changes

If You Smoke, Stop

Smoking makes intermittent claudication worse. If you smoke, and you want to walk without leg pain, your first goal should be to quit smoking. Ask your doctor to recommend a program to help you quit smoking.

Questions?

Weekdays from 8 a.m. to 4 p.m., call the Surgical Specialties Nurse Advice Line at 206-598-4549.

After hours and on weekends and holidays, call 206-598-6190 and ask for the Vascular Surgery Resident on call to be paged.

Or, call your attending vascular surgeon,

Dr. _____.

Eat a Healthy Diet

Try eating:

- A variety of foods
- Low-fat foods
- Lean meat, poultry, and fish
- Foods with enough starch, fiber, and calcium
- Plenty of fresh fruits and vegetables and whole grains

Limit:

- High-calorie, high-fat foods such as cakes, cookies, candies, and other sweets
- Alcohol
- Refined sugar
- Salt
- Foods high in saturated fat

If you have diabetes, you are already on a special diet. Talk with your diabetes care provider for more tips on healthy eating.

Walking Programs

Contact any of these groups for information on walking programs:

- **American Diabetes Association**
Seattle-Tacoma: 206-282-4616
Spokane: 509-624-7478
www.diabetes.org/food-and-fitness/fitness/
- **Evergreen State Volkssport Association**
Washington state walking club.
210-659-2112
www.esva.org
- **Municipal Research and Services Center of Washington**
Resource for many walking programs and other exercise options in Washington state.
www.mrsc.org/subjects/humanservices/healthyActivity.aspx#Walking
- **Start! Walking Program**
Program sponsored by the American Heart Association.
800-242-8721 (800-AHA-USA-1)
<http://startwalkingnow.org>

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Surgical Specialties Center

Box 356165

1959 N.E. Pacific St. Seattle, WA 98195
206-598-4549