

All About Peripheral Arterial Disease

What is peripheral arterial disease?

Peripheral (puh-RIF-uh-rul) arterial (ar-TEER-ree-ul) disease, also called PAD, happens when blood vessels in your legs are narrowed or blocked by fatty deposits. Blood flow to your feet and legs decreases, causing pain and circulation problems. When blood flow is reduced, your muscles can't get enough oxygen. If you have PAD, your risk for heart attack, stroke, and amputation goes up. About one-third of people with diabetes over the age of 50 have PAD. But many of them don't know they have it.

What does diabetes have to do with PAD?

If you have diabetes, you're much more likely to have PAD. You're also at high risk for a heart attack or a stroke. But you can cut your chances of having those problems by taking care of your health.

How do I know whether I'm at risk for PAD?

Just having diabetes puts you at risk. But your risk is even greater if you

- smoke
- have high blood pressure
- have abnormal blood cholesterol levels
- already have heart disease
- already had a heart attack or a stroke
- are overweight
- aren't physically active
- are over age 50
- have a family history of PAD, heart disease, heart attacks, or strokes

You can't change some of these risk factors. But you can lower your risk for PAD by tackling some of the other risk factors, such as losing weight if you're overweight.



If you have warning signs of PAD, talk with your health care provider.

What are the warning signs of PAD?

Many people with PAD don't have any warning signs. Some people may have mild leg pain when they walk, a condition called claudication (CLAW-dih-KAY-shun), weakness, or trouble walking. But they might think these are just signs of getting older. Warning signs include

- pain in your legs that occurs while you walk but disappears after a few minutes of rest
- tiredness or cramps in your legs
- numbness, tingling, or coldness in your feet or the lower part of your legs
- sores or infections on your feet or legs that heal slowly
- dry, cracked skin on your feet
- pain in your feet or toes, even when you're resting

How is PAD diagnosed?

Your health care provider will check your pulses—the rate of blood flowing through your blood vessels—in your feet. You should also tell your provider if you have warning signs of PAD. Your provider also will look at your feet.

Another test is the ankle brachial (BRAY-kee-al) index (ABI). This test uses sound waves (ultrasound) to compare the blood pressure in your ankles to the blood pressure in your arms. If the blood pressure in your

ankles is lower than the pressure in your arms, you may have PAD. The ABI also tells whether the amount of blood flow in your legs is reduced. Your health care provider should

- check your ABI if you're over the age of 50 and have diabetes
- check your ABI if you have warning signs of PAD (for people of all ages)
- consider a check of your ABI if you're 50 or younger but have other risk factors, such as having diabetes for more than 10 years or being a smoker

If your results are normal, your health care provider should check your ABI every 5 years.

These tests also can be used to diagnosis PAD:

- In **contrast angiography** (AN-gee-AH-graf-ee), the health care provider injects dye into your blood vessels and then takes X rays to see whether your arteries are narrowed or blocked.
- In an **ultrasound test**, sound waves produce images of your blood vessels on a viewing screen.
- **MRA** and **CTA** tests use special scans to see whether your blood vessels are blocked.

How is PAD treated?

Exercise, such as walking, can be used both to treat PAD and to prevent it. Medicines may help relieve symptoms. Regular foot care helps prevent problems.

Some people need surgery for PAD.

- In **angioplasty** (AN-gee-oh-plas-tee), also called **balloon angioplasty**, a narrow tube with a balloon attached is inserted and threaded into an artery. Then the balloon is inflated, opening the narrowed artery. A wire tube, called a stent, may be left in place to help keep the artery open.
- In an **artery bypass graft**, a healthy blood vessel is taken from another part of the body and is attached to bypass (go around) a blocked artery.

How can I take care of my PAD and also lower my risk for a heart attack or a stroke?

Take these steps:

- If you smoke, talk with your health care provider about how to quit.
- Aim for an A1C below 7% or an eAG below 154 mg/dl. The A1C test measures your average blood glucose (sugar) over the past 2 to 3 months.
- Keep your blood pressure below 130/80 mmHg.
- Aim for an LDL cholesterol level below 100 mg/dl.
- Talk with your health care provider about taking aspirin or other antiplatelet medicines.
- Make smart food choices.
- Be physically active, aiming for at least 30 minutes of exercise, at least 5 days a week.

Real-Life Stories from People with Diabetes

Last summer my leg muscles had been hurting, even when I walked a short distance. The pain would stop when I rested, but then it would come back. At first, I thought it was just part of getting older. I told my health care team about the pain and also showed them a sore on my foot that wasn't healing. They did some tests and said I had PAD. Now the pain is gone. I take pills for the PAD and I go for a walk almost every day.

— Sylvia P., age 60 • type 2 diabetes

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