



What is Peripheral Artery Disease?

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If you, or anyone you know, smokes, has high blood pressure, diabetes, high cholesterol, heart disease, or has a family history of these conditions, chances are that Peripheral Arterial Disease, or PAD, will touch your life.

Patients with PAD have blockages in the blood vessels going to their legs. PAD is caused by atherosclerosis, or hardening of the arteries; a build-up of plaque, or fatty deposits, in the walls of blood vessels. This is the same disease that can block arteries going to the heart (coronary artery disease) and the brain (cerebrovascular disease). Therefore, patients with PAD are at an increased risk of having a stroke or a heart attack. PAD affects up to 12 million Americans; 12 percent to 20 percent of those over the age of 65.

What are the symptoms of PAD?

Many patients with PAD have no symptoms at all. The most common early symptom is called Intermittent Claudication (IC). This is pain in the

muscles of the legs that occurs when walking. When you walk, your leg muscles are working much harder, and need more blood. With arteries that are blocked by PAD, however, you can't get enough extra blood to your muscles, so after walking for a few minutes, your legs may get tired, feel heavy, ache or begin to hurt, forcing you to stop. When you rest, the pain goes away, but it comes back after you walk again for a few more minutes. Mild claudication may be just a nuisance, but it can become very disabling.

Severe PAD is called Critical Limb Ischemia (CLI). This occurs when the legs are not getting enough blood, even when you are resting. Patients with CLI will often have pain in their feet or toes. They can also develop ulcers or sores on their feet and ankles, which can progress to dead tissue, or gangrene. Untreated, patients with CLI can eventually lose their leg.

Who is at risk for PAD?

Because PAD is caused by hardening of the arteries, patients that get PAD are the same patients that are at risk for heart disease. Your risk increases as you age. While women get PAD, it is more common in men. Other risk factors for PAD include:

- ▶ Smoking
- ▶ Diabetes
- ▶ High blood pressure
- ▶ Family history
- ▶ Obesity

How is PAD diagnosed?

Your doctor will take a history and check the pulses in your arms and legs. Patients with PAD will commonly have decreased or absent pulses in their feet, but some with significant PAD and claudication, still have pulses in their feet. If your doctor suspects that you have PAD, they can order some simple, painless tests. The most common is

an Ankle Brachial Index (ABI), which compares the blood pressure in the arms and the legs. More sophisticated testing involves blood pressure checks of the entire legs (called a Noninvasive Arterial Test), often done before and after exercise. X-Rays, such as an MRI or CT scan of the blood vessels are sometimes done, particularly if the PAD will need to be treated.

How is PAD treated?

Even patients without symptoms need treatment for the disease that causes PAD: Atherosclerosis. Your doctor will likely recommend a mild blood thinner such as aspirin, a cholesterol-lowering medication and blood pressure medicines. All of these have been shown to protect patients with PAD against problems such as heart attacks and strokes. A medication called Cilostazol is helpful for some patients with claudication. Your doctor may also make recommendations about your diet, and about an exercise program. It is vital that patients with PAD not smoke!

Patients with more severe, lifestyle-limiting claudication, and those with CLI, will need procedures to improve their leg circulation. Traditionally these patients were treated with surgical bypasses. Today, many patients are treated with minimally invasive "endovascular" techniques, that require only a tiny needle puncture, and use tools such as angioplasty balloons (which are inflated to open up blockages) or stents (which are wire tubes that hold the arteries open). This is all done under x-ray guidance, with local anesthesia and light sedation. While still done in hospitals, many vascular specialists are now often able to perform these minimally invasive procedures in their offices. Ask your doctor. +

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