

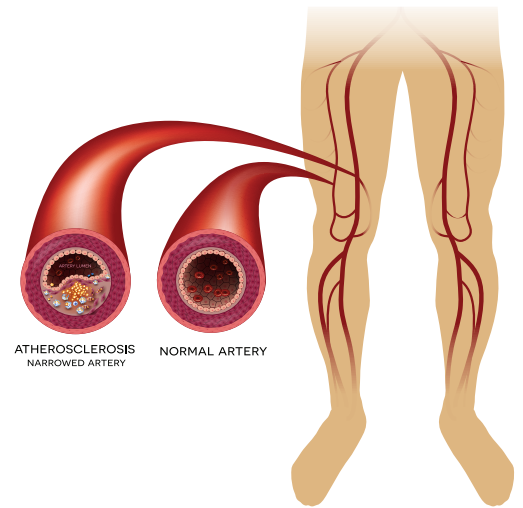
# Helping Your Patients with Peripheral Artery Disease (PAD)

## Peripheral Artery Disease

### Definition

Peripheral artery disease is a disease of the blood vessels outside the heart. This condition is caused by a narrowing of vessels that carry blood away from the heart to other parts of the body.

Peripheral artery disease (PAD) is often used interchangeably with the term "peripheral vascular disease (PVD)." The term "PAD" is recommended to describe this condition because it includes venous in addition to arterial disorders. PAD stems from structural changes in the blood vessels resulting from fatty buildup (atherosclerosis) in the inner walls of the arteries. These deposits hinder and block normal blood flow.



### Why is peripheral artery disease dangerous?

In the most common type of PAD, lower extremity PAD, blood flow is reduced to the legs and feet. Left untreated, PAD can lead to gangrene and limb amputation. Patients with PAD are at heightened risk for death from both heart attack and stroke. PAD can result in poor kidney circulation, leading to high blood pressure, or blood pressure that is difficult to control with lifestyle changes and medications. In some cases, blockage of the kidney arteries may progress to loss of kidney function or kidney failure.

### What are the symptoms of PAD?

The most common symptom of PAD is "claudication," which is cramping, fatigue, aching, pain or discomfort in the legs and buttocks caused by poor blood circulation. The symptoms occur during activity and usually go away with rest. Claudication can often decrease the distance you can walk, and can negatively affect your ability to function at home and at work.



Leg or foot  
wounds that are  
slow to heal



Unexplained leg  
pain or cramping,  
especially during  
exercise or walking



Skin problems or  
discoloration on  
your legs and feet,  
poor nail growth



A CLINICIAN'S GUIDE

# Helping Your Patients with Peripheral Artery Disease (PAD)



A history of smoking



Type 2 Diabetes



Advanced age (>65 years)



High blood pressure



A family history of PAD



High cholesterol

## What are the risk factors for PAD?

The risk factors for PAD include a family history of the disease, older age (>65 years), age 50–64 years with risk factors for atherosclerosis, age <50 years with Type 2 diabetes and another risk factor for atherosclerosis and previously diagnosed atherosclerosis in vessels including those supplying the heart, brain and kidneys. There are also other conditions and lifestyle factors that can raise your risk for PAD. These include diabetes, smoking, high blood pressure, high cholesterol and a sedentary lifestyle. You may find it reassuring to know that many of these risk factors can be controlled with medical therapy and lifestyle changes. As a result, your PAD symptoms may improve. These therapies can also help prevent PAD from getting worse.

## How is PAD diagnosed and treated?

Diagnosing PAD begins with a medical history and physical exam. Your health care professional may also perform a simple noninvasive test called an ankle brachial index (ABI) which compares the blood pressure in your arms and in your legs to look for a decrease in circulation. Treatment for PAD may include medication and heart-healthy lifestyle modifications. Medications that are often used for PAD include antiplatelet agents to prevent blood clots, cholesterol-lowering medications and high blood pressure drugs.

Lifestyle changes that can help control PAD include smoking cessation, controlling diabetes and high blood

pressure, and eating a heart-healthy diet. Regular exercise prescribed by your health care professional is particularly important to reduce the pain and other symptoms of intermittent claudication. With a structured exercise program, you can improve your walking distance and your quality of life.

## Procedures for PAD

When medications, lifestyle changes and exercise are not enough to relieve claudication, an invasive procedure to improve blood flow may be needed. This is called “revascularization.”

Less invasive procedures to relieve PAD include angioplasty, a procedure that opens up narrowed or blocked arteries. In angioplasty, a thin tube or catheter with a deflated balloon on its tip is passed into the narrowed artery to the location of the blockage. The balloon is inflated, which pushes open the narrowed segment. Other procedures use a stent (or wire mesh tube). The stent is used to prop the artery open during angioplasty. Then it stays in place in the artery permanently, keeping the artery open.

If the narrowed artery segment is unable to be treated with angioplasty or stent placement, bypass surgery may be considered. In bypass, a vein from another part of the body or a synthetic blood vessel is attached above and below the blocked area to detour blood around the blocked area.

## HOW CAN I LEARN MORE?

Call **1-800-AHA-USA1** or visit [heart.org](http://heart.org) to learn more about PAD, PVD, heart disease and stroke.

Sign up for *HeartInsight*, a free monthly e-newsletter for heart patients at [HeartInsight.org](http://HeartInsight.org).

Connect with others with similar conditions by joining our Support Network at [heart.org/SupportNetwork](http://heart.org/SupportNetwork).

Visit [heart.org/PADtoolkit](http://heart.org/PADtoolkit) to learn more.