

Peripheral Arterial Disease (PAD)

Approximately 8-12 million people, slightly more than 10% of Americans older than 65 years, suffer from some form of peripheral arterial disease. The condition is more common in people who smoke or have high cholesterol levels or diabetes mellitus.

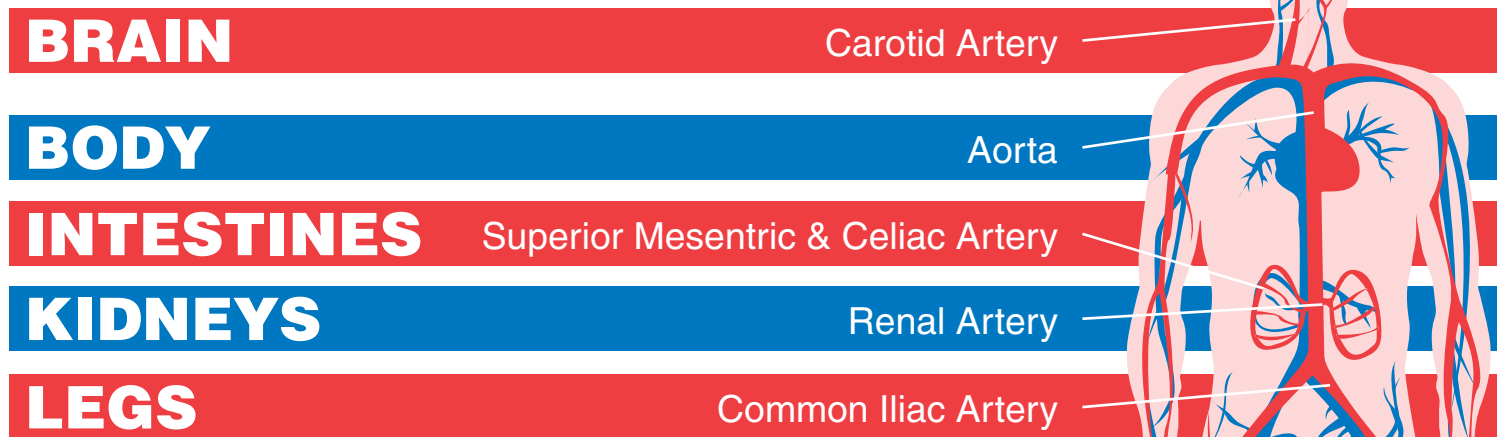


What is peripheral arterial disease?

Peripheral arterial disease (PAD) refers to diseases of blood vessels outside the heart and brain. PAD most commonly affects the legs, but can affect the arms, stomach or kidneys. Similar to heart disease, PAD involves the buildup of plaque and fatty substances on the inner lining of arteries. The buildup of plaque inside the arteries narrows the vessels and reduces the blood flow.

PAD is also a risk factor for heart disease. Individuals with Peripheral Arterial Disease are four times as likely to have a heart attack and have a two to three-fold greater risk for stroke, compared to individuals of the same age without PAD.

PAD can cause pain, disability and put limbs at risk. During early stages of PAD, symptoms are usually rare; however, as the buildup of plaque progresses, it blocks the flow of blood through the artery to tissues and organs. Many people who suffer from PAD experience pain in one or both calves, affecting their ability to walk. The pain usually subsides when the activity stops. Known as "intermittent claudication", symptoms may include cramping, fatigue, heaviness, pain or discomfort in the legs and buttocks. Many factors have been identified that increase the likelihood of PAD.



Risk factors for developing PAD include:

- Smoking
- Diabetes
- Family history of heart disease
- Overweight
- High blood pressure
- High cholesterol
- Age: over 50 years
- Inactive lifestyle

What are symptoms of peripheral arterial disease?

Depending on the location of the disease, one or more of the following symptoms may be present:

- Claudication (dull pain in the buttocks, thighs, calves, or feet following exercise or walking)
- Numbness or tingling in the leg, foot, or toes
- Changes in skin color (i.e., paleness or a bluish color) in the leg, foot, or toes
- Absence of a pulse

When left untreated, the following complications can develop:

- Permanent numbness, tingling, or weakness in legs or feet
- Permanent burning or aching pain in legs or feet
- Ulcers (sores) on the foot or toes that will not heal
- Gangrene - a very serious condition resulting from a leg or foot or other body part not getting enough blood. The tissues die and begin to decay. The only treatment is amputation of the affected body part.
- Hypertension (uncontrolled high blood pressure)
- Kidney failure

How is peripheral arterial disease diagnosed?

The ankle-brachial index (ABI) is one method of testing for PAD through the use of a Doppler probe and blood pressure cuffs. Circulation in the leg arteries is assessed by measuring blood pressures of both of your arms and your ankles, then calculating an ankle/brachial index. PAD is diagnosed if the blood pressure in the lower leg is lower than in the arm (ABI < 0.90).

Normal: > 0.95	Mild: 0.80-0.95	Moderate: 0.50-0.79	Severe: 0.30-0.49
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*Although the ABI is extremely reliable, this test may not be accurate in all patients. Some patients with long-standing diabetes, kidney disease, or some elderly patients, may have rigid blood vessels. These may be difficult to compress with the blood pressure cuff and, in these patients, the ABI reading may not be accurate.

What can I do if I have PAD?

People with PAD often can be treated with lifestyle changes, medications or both. Lifestyle changes include:

- Stop smoking (smokers have a particularly strong risk of PAD)
- Control diabetes
- Control blood pressure
- Be physically active (30 minutes most days of the week)
- Eat a low-saturated-fat, low-cholesterol diet

PAD may require drug treatment, too. Medications may include:

- Medicines to help improve walking distance
- Antiplatelet agents
- Cholesterol-lowering agents

When lifestyle modifications alone aren't sufficient, angioplasty or surgery may be necessary.

- **Angioplasty** is a non-surgical procedure that can be used to dilate (widen) narrowed or blocked peripheral arteries. A thin tube called a catheter with a deflated balloon on its tip is passed into the narrowed artery segment. Then the balloon is deflated and the catheter is withdrawn.
- **Stent** — a cylindrical, wire mesh tube — may be placed in the narrowed artery with a catheter. There the stent expands and locks open. It stays in that spot, keeping the diseased artery open. If the narrowing involves a long portion of an artery.
- **Surgery** may be necessary. A vein from another part of the body or a synthetic blood vessel is used. It's attached above and below the blocked area to detour blood around the blocked spot.