Lower Extremity Peripheral Arterial Disease (PAD)

![Image](image1.jpg)

**WHAT IS PERIPHERAL ARTERIAL DISEASE?**

Peripheral Arterial Disease or PAD is a form of atherosclerosis (hardening of the arteries) that occurs anywhere in the body outside of the heart. Lower extremity PAD is disease occurring in the torso and legs. Patients who have lower extremity PAD are usually not aware that they have the condition until plaque builds up inside the artery obstructing blood flow. Half the patients with PAD have no symptoms at all.

Plaque build up inside the arteries of the legs can progress to the point of severely narrowing or even completely occluding the artery. Many patients experience “intermittent claudication” which is pain that starts during exercise or activity and goes away when resting. Other symptoms include weakness, numbness and pallor to the affected leg(s).

**WHAT CAUSES LOWER EXTREMITY PAD?**

Lower Extremity PAD is usually caused by atherosclerosis in the affected artery. Patients who are at higher risk include:

- Diabetics
- Smokers
- People with high cholesterol and atherosclerosis in other areas of their body (for example people with coronary artery disease are at higher risk for PAD
- Hypertension
- Age (55 and over)

**HOW IS LOWER EXTREMITY PAD DIAGNOSED?**

The most accurate and least expensive test to assess for lower extremity PAD is called an ABI (ankle-brachial index). The test will evaluate your pulses and blood pressure to determine if narrowing or blockage of an artery is present. If abnormalities are detected, an ultrasound of the affected artery is typically performed. The ultrasound allows a direct picture of the affected artery and a better understanding of the degree of blockage. With this information, your doctor can determine the best course of treatment for you. Other non-invasive tests include MRA, CTA (see list of Diagnostic Studies)
HOW IS LOWER EXTREMITY PAD TREATED?

Treatment typically depends on the amount of blockage and the symptoms the patient is experiencing. There are four categories of treatment:

- **Lifestyle changes** – these changes are aimed to halt the progression of disease. Typically patients are asked to quit smoking, maintain a healthy, low cholesterol diet and exercise. Exercise is considered the cornerstone of therapy for most patients with PAD.

- **Pharmacologic** – may include cholesterol lowering medications, aspirin, or other forms of antiplatelet therapy and medications called vasodilators that may dilate the arteries in the legs.

- **Intervention** – Similar to a cardiac catheterization and intervention, the patient is taken to the “Cath Lab” where a catheter is inserted into an artery more commonly in the groin region (femoral artery) and dye is injected into the artery. Pictures are taken of the dye, allowing the doctor to determine the location and degree of blockage. Once this is determined the doctor may proceed with a procedure to re-open the blocked artery. Commonly performed procedures include balloon angioplasty, stents, atherectomy and laser angioplasty. During a balloon angioplasty, the doctor inserts a tiny balloon into the blockage and opens it, pressing the plaque up against the sides of the artery wall. This allows blood to flow freely through the artery. Usually the doctor will then insert a stent (a small metal coil that acts like scaffolding to keep the artery open). Today at Austin Heart a new procedure has been used known as Atherectomy which removes plaque from the artery using a cutting device. Usually the patient is monitored overnight and discharged the next morning. See a more detailed discussion on atherectomy under the HeartFacts heading “Cardiac & Vascular Procedures/Interventions.”

- **Surgery** – in some cases may be the more appropriate option. Just as with the heart, a “bypass” can be created to shunt blood around the blocked area. Length of the hospital stay varies on the procedure performed and can be anywhere from 3-5 days.

Since the primary cause of lower extremity PAD is plaque build up in the arteries of the legs, follow up care will be similar to follow up care for atherosclerosis, including:

- Smoking cessation
- Lowering cholesterol (which may require medication)
- Maintaining a healthy diet
- Exercise
- Close monitoring for progression of the disease
- Controlling risk factors such as diabetes and hypertension (high blood pressure)