

## VASCULAR, ENDOVASCULAR, & GENERAL SURGERY

H. Charles-Harris, MD & Associates

A Center of Excellence

*A Surgical Newsletter Joining Physicians in Podiatry and Surgery*



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APRIL IS  
FOOT  
HEALTH  
MONTH!



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*Questions?*

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*Contact Us!*

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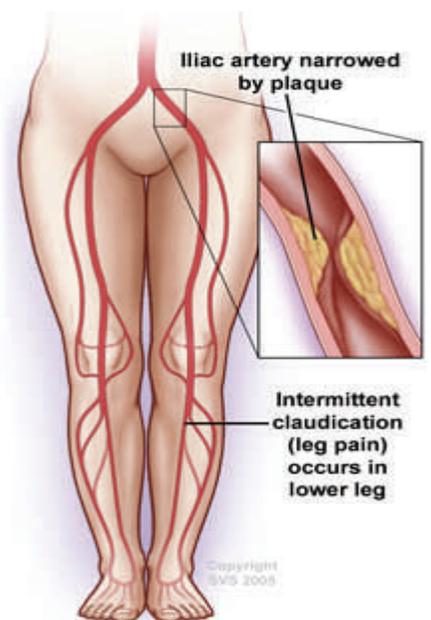
### SYMPTOMS OF PERIPHERAL ARTERIAL DISEASE (PAD)

The most common early symptom of PAD is **intermittent claudication**: reproducible ischemic muscle pain. This involves discomfort or pain in the legs when walking and goes away at rest. Common complaints by patients are a feeling of tightness, heaviness, cramping, or leg weakness with activity. These patients suffer from atherosclerosis, however, keep in mind that only about 50% of those with leg artery disease have blockages severe enough to experience intermittent claudication.

Advanced PAD will often be demonstrated by **limb ischemia** caused by lack of oxygen. These patients often complain about pain in their feet or toes. **Ulcers** can also form due to ischemia, beginning as dry, gray, or black sores, and eventually becoming gangrene. Often diabetic patients develop **foot ulcers**, in particular insulin users, and those with diabetes-related kidney, eye, and heart disease. Other risk factors are being overweight as well as alcohol and tobacco use. Especially at risk are African Americans, Hispanics, Native Americans and older men. These symptoms are treated locally but are often also a sign of underlying vascular problems. It is recommended that these patients be tested for vascular disease prior to foot surgery, if possible, to improve the chances for healing and decreasing the complication rate.

### PATIENT'S "ABI" USEFUL IN DIAGNOSING PAD

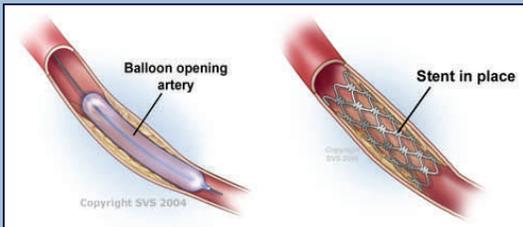
- The ankle-brachial index (ABI) is helpful in assessing a patient with claudication. This is calculated as the ratio of systolic blood pressure at the ankle to the arm.
- By determining the ABI, an assessment can be made of the impact that the PAD is having on the patient. A normal ABI is 0.9-1.1. However, any patient with an ABI less than 0.9, by definition, has some degree of PAD. The lower the ABI number, the worse the PAD.
- Of note, patients with diabetes who also have PAD may have inaccurate ABI numbers. Peripheral vessels in patients with diabetes may have extensive medial layer calcinosis, rendering the vessel resistant to compression by the pneumatic cuff. It is recommended that when in doubt these patients be referred to the surgeon for further evaluation.



## ENDOVASCULAR PROCEDURES

### PAD Screening & Diagnostics

Simple screening using **ABIs** and **non-invasive arterial dopplers** usually are enough to diagnose most patients at risk. After this, depending on the circumstances, usually a **CTA** or **MRA** can be done. Many times Dr. Charles-Harris may elect to perform a **diagnostic angiogram** with the possibility for an intervention.



### PAD Intervention: Angioplasty & Stenting

Conservative treatment options include addressing the risk factors. Many patients with PAD who have persistent symptoms despite conservative management or those who present more acutely, can be treated successfully with minimally invasive techniques such as **balloon angioplasty (PTA)** and **stenting**. Angioplasty involves inflation of a balloon catheter in the diseased artery at the site of narrowing or blockage. This area is stretched open, re-establishing better blood flow. Often a vascular stent is deployed concurrently at the site of blockage to mechanically support the diseased artery. The stent decreases the chance that the blood vessel will re-stenose or occlude again.

Vascular surgery for PAD is generally reserved for those symptomatic patients who do not respond to conservative treatments and whose vascular anatomy and arterial blockages are not optimal for angioplasty and stenting. Whether it is minimally invasive procedures or major vascular surgery, Dr. Charles-Harris provides all of these various treatment options.

## BIMONTHLY NEWSLETTER

Interested in reading our bimonthly practice newsletter?

In it, we discuss news and current events our practice is involved in as well as discussing the various procedures we offer in the specialties of general, vascular, and endovascular surgery.

Call us at: **305.691.2941** or email us at: **gvsurgeon@gmail.com** to request to be added to our mailing list! You can also visit us online at **www.all-surgery.com** and download the newsletter in PDF format.



Want to read more about a specific diagnosis, problem, or surgical procedure? Email us with suggestions for future newsletters. We appreciate your feedback!

Email: **gvsurgeon@gmail.com**

## SURGERIES

The Various Procedures Our Practice Specializes In

- Ultrasound-Guided Breast Biopsy
- Stereotactic Breast Biopsy
- Uterine Fibroid Embolization
- Aortogram with Peripheral Angiograms
- Peripheral & Visceral Arterial Stenting
- Aneurysm Repair & Excision
- Abdominal Aortic Aneurysm
- Carotid Stenosis
- Vena Cava Filter
- Permanent Dialysis Access: AV-Fistula & AV-Graft
- Stomach Cancer & Disorders
- Colorectal Cancer & Disorders
- Breast Cancer & Disorders
- Gallstones & Cholecystitis
- Biliary Cancer & Disorders
- Pancreatic Cancer & Disorders
- Goiters & Thyroid Disorders
- Hernia Repairs
- Appendix Surgery
- Circumcision
- Hemorrhoids
- Anal Fissures & Fistulas
- Various Vascular Access: Catheters & Infusion Ports

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## RISKS FOR PAD

**Atherosclerosis** causes Peripheral Artery Disease. Other factors that increase the chances of developing the disease include:

- Smoking
- Diabetes
- High blood pressure
- High cholesterol or triglycerides
- High levels of homocysteine, an amino acid in the blood
- Weighing over 30% more than ideal weight
- Sedentary lifestyle
- Family history of vascular disease