

Health & Wellness News

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In this Issue

Health Tip:
Maintaining a
Healthy Liver...2

Q & A:
Kidney Stones...3

Clinic News...5

Health Care
Calendar...6

Locations...7

Regional Focus...8

Peripheral Artery Disease Front and Center

For many people, it begins as a cramp in the leg or a tight feeling in the calf. For others, the symptoms may be too subtle to notice.

But according to the American Heart Association, whether you experience symptoms or not, you could be one of the 8 to 12 million Americans living with a potentially dangerous condition known as peripheral artery disease (PAD).

Also referred to as peripheral vascular disease, PAD affects the arteries outside the heart and brain, such as those leading to the kidneys, stomach, arms, legs or feet. The most common cause of PAD is atherosclerosis, a hardening and narrowing of the arteries caused by a buildup of plaque—deposits of fats, cholesterol and other substances.

“In a sense, although PAD occurs in areas outside the heart and brain, it really isn’t that different from coronary artery disease or carotid artery disease,” explains cardiologist Thomas C. Piemonte, MD. “They’re all atherosclerotic...meaning they’re all diseases of the arteries, they’re all typically brought on by the same risk factors, and they can all lead to bigger problems if undetected.”

**Between 8 and 12 million
Americans live with peripheral
artery disease (PAD).**

When plaque forms in a coronary artery, it can lead to a heart attack. Similarly, a blockage in a carotid artery—those that lead to the brain—can lead to a stroke. A blockage in a peripheral artery often results in pain, changes in skin color, sores or ulcers, or difficulty walking. In the worst cases, total loss of circulation to the legs and feet can occur, causing gangrene or loss of a limb.

“Although it’s common for a patient to have one vessel blocked and nothing else,” says Piemonte, “atherosclerosis often indicates a systemic problem. So if you treat a patient for 15 years, there’s a high likelihood you’re going to see a blockage somewhere else at some point. This means patients with PAD may also be at an increased risk for heart attack and stroke if they don’t minimize their risk factors.”

(Continued on page 4)

Peripheral Artery Disease (Continued from Page 1)

Recognizing Your Risk

Unfortunately, PAD sometimes goes undetected because patients either have no symptoms or mistake their symptoms for something else, such as “just old age.” That’s why recognizing early signs of the disease and understanding your risk factors are crucial to the detection and fast treatment of PAD.

“Probably the most common, early symptom of PAD is exercise-induced cramping of the leg or legs,” says Piemonte. Known as claudication, this type of pain occurs while walking or exercising but disappears when the person is at rest. If recognized early enough, claudication can usually be managed by making lifestyle changes and controlling risk factors.

A Collaborative Approach

Traditionally, cardiologists, radiologists and vascular surgeons all contributed to the diagnosis and treatment of PAD—but they did so separately. “This is changing,” explains Edward Jewell, MD, chair, Vascular Surgery. “One of the new things at Lahey is that we’re developing a more formalized, multidisciplinary approach to treating PAD. This team approach allows us to work closely together, optimizing talent and sharing knowledge from our different areas.”

says Jewell. “If lifestyle changes and medication won’t work or aren’t successful, interventional procedures or surgery are usually the next options.”

Innovative Therapies

According to Piemonte, the most common interventional technique for treating PAD is angioplasty. A minimally invasive procedure, angioplasty involves inserting a thin tube called a catheter within an obstructed artery and inflating a tiny balloon in order to open the narrowed area. Often, one or more stents—cylindrical, wire mesh tubes—are also inserted in order to keep the artery open.

“There are also a lot of new technologies available that can be used in addition to angioplasty and stenting, or on their own,” says Piemonte. “There’s arthectomy—another catheter-based procedure that allows us to shave plaque from an artery. Cryoplasty allows us to actually freeze plaque within a peripheral artery so it doesn’t regrow.”

“Our first choice is always to offer patients the least invasive options,” adds Jewell, “but if a patient presents with a limb-threatening problem such as pain while at rest, nonhealing ulcers or gangrene, surgical bypass may be necessary.” In bypass surgery, 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 spot.

Risk Factors for Peripheral Artery Disease

- Diabetes
- Smoking
- High cholesterol
- Being overweight
- A family history of heart or vascular disease
- Lack of exercise or physical activity
- Being over 50 years of age
- High blood pressure

Patients with PAD may also be at an increased risk for heart attack and stroke.

The most common diagnostic test to screen for peripheral artery disease of the legs is the ankle-brachial index (ABI) test, which measures blood pressure at the ankle and the arm while a person is at rest, and after five minutes of walking on a treadmill. A decrease in the ABI result after exercise is an indicator that significant PAD is probably present.

“At that point, the physician will make a determination as to what sort of treatment will most benefit the patient,”

Approximately 98 percent of limb-threatening problems can be fixed with bypass surgery.

“It used to be that all we could offer patients with PAD was surgery to save limbs or treat ulcer disease,” says Piemonte. “But now there are so many innovative therapies for patients with PAD that we’re able to treat people for quality of life issues as well.”

To learn more, visit www.lahey.org/heart.