

THE DAILY CHECKUP BY KATIE CHARLES

A threat to life and limb

Peripheral vascular disease, cutting blood flow to the legs and feet, can lead to pain, gangrene, even heart attacks. Fortunately, treatment is often simple

► The specialist: Dr. Peter Faries on peripheral vascular disease

Faries, the chief of vascular surgery at the Mount Sinai School of Medicine, treats patients who have problems with their blood vessels. He specializes in procedures on the legs, the carotid artery and the aorta.

► Who's at risk

Though it affects about 10 million Americans, peripheral vascular disease (PVD) is hardly a household term. "Peripheral vascular disease typically refers to the impairment of blood flow to the legs," says Faries. "The disease results when blockages in the blood vessels restrict the flow of blood to the feet and legs." The term peripheral arterial disease (PAD) is also commonly used to describe this phenomenon.

PVD is the result of atherosclerosis, the buildup of plaque in the arteries. "The lining of the artery itself develops cholesterol plaques, and as they get larger in size they narrow the channel," says Faries. "Eventually, when they reach a severe stage, the blockages close off the vessel."

Age is considered the primary risk factor for PVD. "It becomes increasingly prevalent with age," says Faries. "The threshold when it usually starts to occur is age 50." Somewhere between 15% and 25% of those who are older than 65 have PVD, with men slightly more likely to be affected than women.

Many of the other risk factors for PVD are the same as those for heart disease: tobacco use, high cholesterol, high blood pressure, diabetes and obesity. People with kidney disease are also predisposed to PVD. In turn, patients with PVD are four to five times as likely to have a heart attack or stroke, which makes diagnosing and treating the disease all the more important. "PVD has very significant implications not only for the legs but the overall body, including the heart and brain," notes Faries.

► Signs and symptoms

In about half of those with PVD, the disease causes no symptoms, and as a result it all too often goes undiagnosed. "The disease is building up in the arteries, but they don't necessarily know," says Faries. Because of this, being aware of the risk factors is especially important.

The other 50% develops a set of warning signs that is fairly characteristic and recognizable. "The first symptom to develop is usually pain with walking, which is called claudication," says Faries. "It develops from a lack of blood



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Pain when walking is a red flag, says Dr. Peter Faries, but even when there are no symptoms, there are known risk factors.

flow to the exercising muscle." This signature pain is most likely to occur when walking up stairs or up an incline, and it goes away with rest.

As the disease progresses, the next step is pain that develops when you aren't walking. "Rest pain most commonly occurs at night in the feet," says Faries. "The patient is trying to sleep, and they often try to alleviate the pain in their feet by hanging them over the side of the bed." By that point, people are at high risk of losing their leg if they don't have a procedure to correct the blockage. The skin is unable to heal itself without sufficient blood, so people with PVD develop ulcerations, hair stops growing in the affected areas, and eventually gangrene forms as skin and other tissues of the feet and toes start to die.

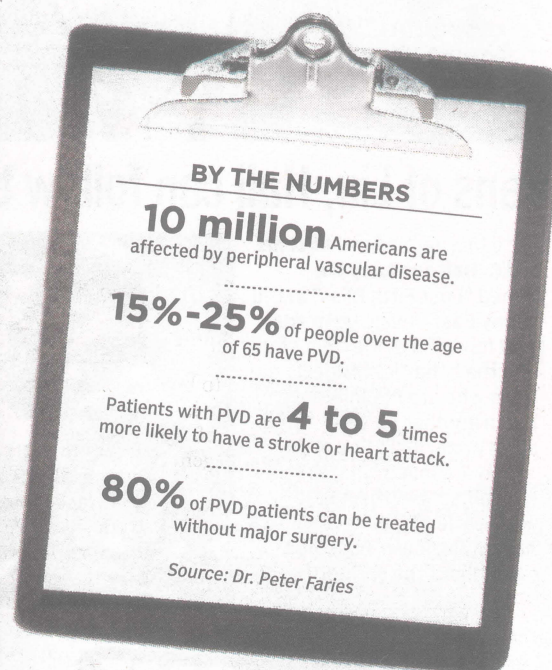
Doctors often use the lack of a detectable pulse in the legs and feet as a way of diagnosing PVD. They can also use a blood-pressure cuff to measure blood pressure at the ankle and compare it to a reading of the arm, or screen for PVD with ultrasound or MRI tests.

► Traditional treatment

The treatment options for PVD fall into three categories: medication, bypass surgery and minimally invasive surgery. "Medical treatment is directed first at the treatment of the underlying risk factors, for instance, by managing blood pressure or helping you stop smoking," says Faries. "There are also specific medications like cilostazol [sold under the brand name Pletal] to help patients improve their walking."

The older surgical treatment for PVD is bypass surgery on the leg similar to the bypass done on the heart. "We use a vein or a synthetic tube to direct the blood around the blockage," says Faries. "We sew a tube above and below the blockage, and that bypass carries blood around the blockage, restoring blood flow."

The newer surgical option is percutaneous, meaning it's



done through the skin, and requires only a needle poke. "We use a long plastic catheter that contains a balloon, which is inflated to open up the blockage within the blood vessel," says Faries. "Next, the balloon is removed, and we can then use a stent to push out the blockage and hold the artery open." Sometimes the surgeon removes the blockage by scraping the plaque out of the artery.

"Whenever possible, we use the minimally invasive procedure because it's much easier for the patient to tolerate," says Faries. "The recovery period is almost immediate, and it's safe." Two years after surgery, 70% to 85% of the blood vessels are still open. Even more important, the limb salvage rate is 90% after four years.

► Research breakthroughs

In addition to the advances in minimally invasive surgery, vascular surgeons are experimenting with devices to help keep blood vessels open. "We are now beginning to test medication that is placed either on the balloon or stent," says Faries. "We hope these medicated stents and balloons will cause the artery to stay open even longer." These new technologies are in clinical trials, he adds: "The studies are ongoing, so none of them have received approval from the FDA."

► Questions for your doctor

If you're concerned about PVD, ask your doctor, "Is the blood flow in my legs normal?" A good question for everyone to ask is, "Am I at risk for PVD, heart attack or stroke?" The heartening news is that doctors can do a lot to manage PVD, so don't be shy about asking, "How can I control this?"

► What you can do

Know your risk factors.

Know that diabetes, smoking, high blood pressure, high cholesterol, obesity and kidney disease increase your risk of PVD as well as stroke and heart attack. "Once you know them, manage them or correct them," says Dr. Faries.

Don't ignore pain in your legs.

PVD is treatable, and in the vast majority of cases it can be treated easily with medication. Don't think you have to live with that discomfort.

Discuss PVD with your doctor.

Ask if you are at risk. "Assessment can be something as simple as feeling the pulses in the legs or doing the ankle blood pressure cuff test," say Faries.

Be cautious about your feet.

Take care of your feet and make sure you don't injure them, because people with PVD can't heal very well.

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