

Peripheral Vascular Disease

Peripheral vascular disease (PVD) affects an estimated 8-12 million people in the United States, and nearly 75 percent of those with PVD are asymptomatic.

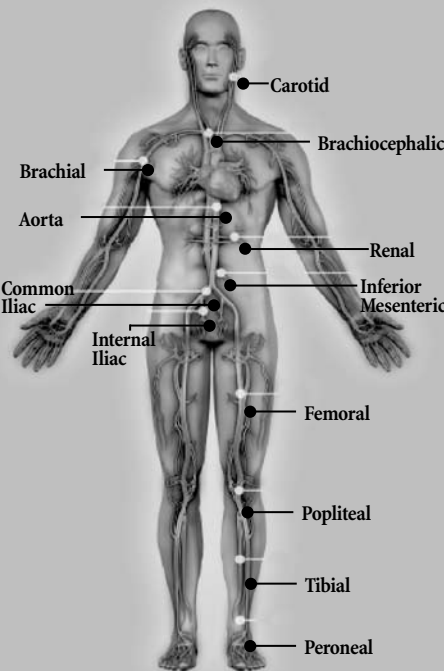
Expertise in Matters of the Heart

The same atherosclerotic plaque that causes narrowing of coronary (heart) arteries can also affect other blood vessels in the body. This is called peripheral vascular disease (PVD). In the peripheral or non-heart vessels, this is most likely to occur in the iliac arteries (lower abdomen leading to the legs), the femoral and popliteal arteries (legs), the renal arteries (kidneys), the carotid arteries (in the neck leading to the brain) and the subclavian arteries (arms). Some patients may have symptoms from both coronary artery disease and peripheral vascular disease. As the internal lining of the artery thickens from the atherosclerotic plaque, the blood vessel becomes increasingly constricted and blood flow diminishes.

Your carotid arteries are located on each side of your neck and extend from your aorta in your chest to the base of your skull. These arteries supply blood to your brain. Each carotid divides into two major branches: the external and the internal. The external supplies blood to your face and scalp. The internal carotid artery supplies blood to the brain.

Disease Symptoms

When organs and muscles in the body receive an insufficient supply of oxygen-rich blood, they literally become starved and alert you to this fact by producing pain. If the blockage occurs in the arteries supplying the legs, the resulting



symptom is a cramping pain in the hips, thighs or calf muscle and can limit even casual walking.

Other symptoms may include:

- Claudication (dull, cramping pain in the hips, thighs or calf muscles)
- Numbness or tingling in leg, foot or the toes
- Changes in skin color (pale, bluish or reddish discoloration)
- Changes in skin temperature; coolness
- Impotence
- Wounds that do not heal

If the blockage occurs in the arteries supplying the kidneys, you may experience:

- Uncontrolled high blood pressure
- Kidney failure

If the blockage occurs in the carotid arteries, you may experience:

- Sudden confusion, trouble speaking or understanding
- Sudden numbness or weakness of face, arms or legs
- Sudden trouble walking, dizziness, loss of balance

PVD: Risk Factors

Clinical studies have identified factors that increase the risk of peripheral vascular disease. Some of these factors cannot be changed, while others can be managed to greatly reduce your risk of the disease. Remember to follow your doctor's recommendations concerning these factors.

Diabetes: Peripheral vascular disease is not uncommon among those with diabetes. This correlation is due to complications of the disease, which may cause damage to the large and small blood vessels of the legs and feet. Blood flow to the feet must be carefully monitored, as damage to the nerves or a foot injury may go unnoticed until an infection or sore develops.

Heart Center of the Rockies, the region's premier heart center, is dedicated to providing a comprehensive program of advanced cardiovascular care throughout Colorado, Wyoming and western Nebraska.

Smoking: The risk of peripheral vascular disease is dramatically increased in smokers. When people stop smoking, regardless of how much they may have smoked in the past, their risk of peripheral vascular disease rapidly declines.

Any of the following risk factors may also increase your chance of developing peripheral vascular disease:

- Obesity (being overweight)
- High blood pressure
- A family history of the disease
- Lack of exercise
- Coronary artery disease
- Over the age of 65
- Hyperlipidemia (high cholesterol)

The doctor will examine you and ask you about symptoms that you may have related to your heart and circulation.

PVD: The Diagnosis

If your doctor suspects that you have peripheral vascular disease (PVD) several tests are used to make a diagnosis. Your doctor will explain the risks and benefits of your treatment options and answer any questions you or your family may have. The following are diagnostic tests that your doctor may order:

Doppler Ultrasound Test

This non-invasive test uses sound waves to provide an image of the inside of the blood vessel to determine if a specific artery has plaque build-up.

Ankle Brachial Index (ABI)

The ABI is a simple non-invasive test that measures the ratio of the blood pressure in your ankle to that in your arm. This ratio may indicate a potential circulation problem.

Magnetic Resonance Angiography (MRA)

An MRA uses a strong magnetic field to make three-dimensional images of arteries. People with pacemakers are unable to have this test due to the magnetic field.

Computed Tomography Angiogram (CTA)

A CTA is an imaging study using X-rays and IV contrast in a CT scanner to visualize blood flow in the arteries.

Carotid Ultrasound

This non-invasive test uses ultrasound to evaluate the carotid arteries. Doppler measurements can further determine the degree of carotid artery narrowing and if plaque is present.

Contrast Angiogram

Before a final diagnosis is made, you may be asked to undergo a contrast angiogram. A special dye is injected into the arteries under local anesthetic and x-rays are taken. The dye shows up on the x-rays, revealing the arteries and the presence of any narrowing or blockages.

PVD: The Treatment Procedures

Peripheral Vascular Disease can involve any artery in the body. Minimally invasive treatment procedures include:

Percutaneous Transluminal Angioplasty (PTA)

Balloon angioplasty or (PTA) is a procedure in which an inflatable balloon catheter is passed into an artery and positioned at the blockage. Once inflated, the balloon pushes the plaque against the vessel wall opening up the channel of blood flow.

Stenting

Stenting is a procedure in which your physician inserts a slender, metal-mesh tube, called a stent. This stent expands inside your artery to increase blood flow in areas blocked by plaque. The stent keeps the artery open by compressing the plaque against the artery wall.

Atherectomy Plaque Excision - SilverHawk™

Atherectomy or plaque excision is a minimally invasive procedure performed through a tiny puncture site in the leg or arm. A small mechanically-driven cutter shaves the plaque and stores it in a collection chamber in the tip of the device. The plaque is then removed from the patient.



For more information call (970) 221-1000, (800) 459-4241, or visit www.heartcenteroftherockies.com