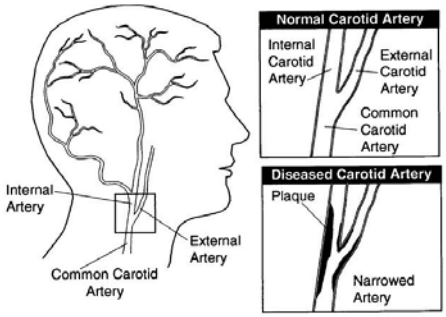
optimus PROSTHETICS

Understanding Vascular Disease

What is vascular disease?

Vascular disease is a progressive condition that mainly affects people over 45 years of age. It is the leading cause of amputations. There may be changes in both arteries and veins with vascular disease. The disease is the same process that occurs in the coronary arteries of the heart except the arteries of the rest of the body are affected. Deposits of cholesterol plaque can block arteries such as the carotid, abdominal aortic, iliac, femoral, or popliteal arteries. These blockages cut down the artery's ability to deliver the proper amounts of oxygen-rich blood to the muscles of the surrounding area.



Vascular Disease in the Lower Abdomen and Legs

A decrease in blood flow to the arteries in the lower abdomen and legs produce symptoms in large muscles such as muscular pain, aches, or cramps. These symptoms taken together are known as **intermittent claudication**. It is produced when leg muscles do not get enough oxygen during weight-bearing exercises such as walking or climbing stairs. This is called "ischemia," which simply means, "lack of oxygen." The symptoms usually disappear within 1-5 minutes after the walking has stopped and occur again when walking resumes. When the femoral and popliteal arteries are blocked, the areas that are affected are the calf and foot. Blockage in the upper part of the iliac arteries may cause claudication in the buttocks region, hips, thighs and calf muscles. Claudication always occurs in the muscles, not the joints or bones.

Classification system for claudication (leg pain scale)

A classification system is often used to help determine the severity of claudication symptoms at rest and with weight-bearing exercise. It is used primarily during exercise sessions as a tool to guide how much
exercise you should do. When you are walking, continue until your symptoms reach Grade 3 or 4. Stop as soon as you reach Grade 4, rest for a few minutes until your symptoms go away and then begin walking again.

Claudication

Grade 1 = Onset / Minimal leg discomfort
Grade 2 = Moderate leg discomfort
Grade 3 = Intense / Severe leg discomfort
Grade 4 = Excruciating / Maximal leg discomfort

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Other symptoms of vascular disease

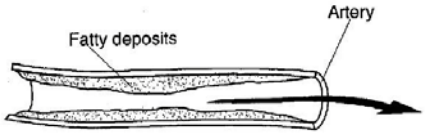
Other symptoms that can occur with poor circulation to the arms and legs:

- Cool, pale skin, cold hands and feet
- Reddish-blue color of the skin and under the nails of fingers and toes, especially when the legs are down or lower than heart level
- Sores that take a long time to heal, scabbed over, look black
- Loss of hair on legs, feet, toes
- Faint or no pulse in the legs and / or feet

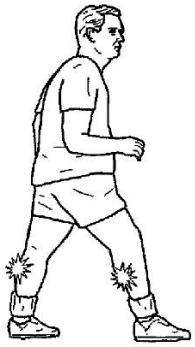
Stages of vascular disease

The four stages of vascular disease in the legs:

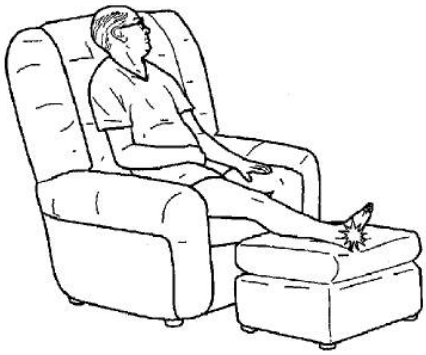
1. Atherosclerosis has begun in the arteries, but no symptoms have yet appeared



2. Claudication symptoms appear in the legs with weight-bearing activity, but are relieved with resting. Exercise is the best treatment during this stage to improve circulation, decrease claudication symptoms and avoid surgery.



3. Pain, aching and cramping occurs all the time, not just with weight-bearing activity. This stage suggests advanced arterial disease. Surgery is usually needed to restore blood flow to the affected part of the leg.



4. Prolonged lack of blood flow results in death of some muscle tissue (gangrene). This is the most advanced stage of arterial disease, which can result in amputation.

Who gets vascular disease?

Vascular disease primarily affects smokers, former smokers and persons with diabetes. One complication of diabetes includes blockages in the small blood vessels of the legs. As a result, blood flow to one leg or both legs is decreased.

Other individuals who may be at risk for Vascular Disease include:

- Anyone over the age of 45
- People with high cholesterol
- People with high blood pressure
- Those that have coronary artery disease
- People with a family history of coronary artery disease
- Those who are overweight
- People who lead a very sedentary lifestyle

How is vascular disease treated?

We know there is no “magic cure” for vascular disease however, lifestyles change and medical treatment can greatly decrease long-term complications that can result if there is no intervention.