Peripheral Vascular Disease

A Patient's Guide to Surgery

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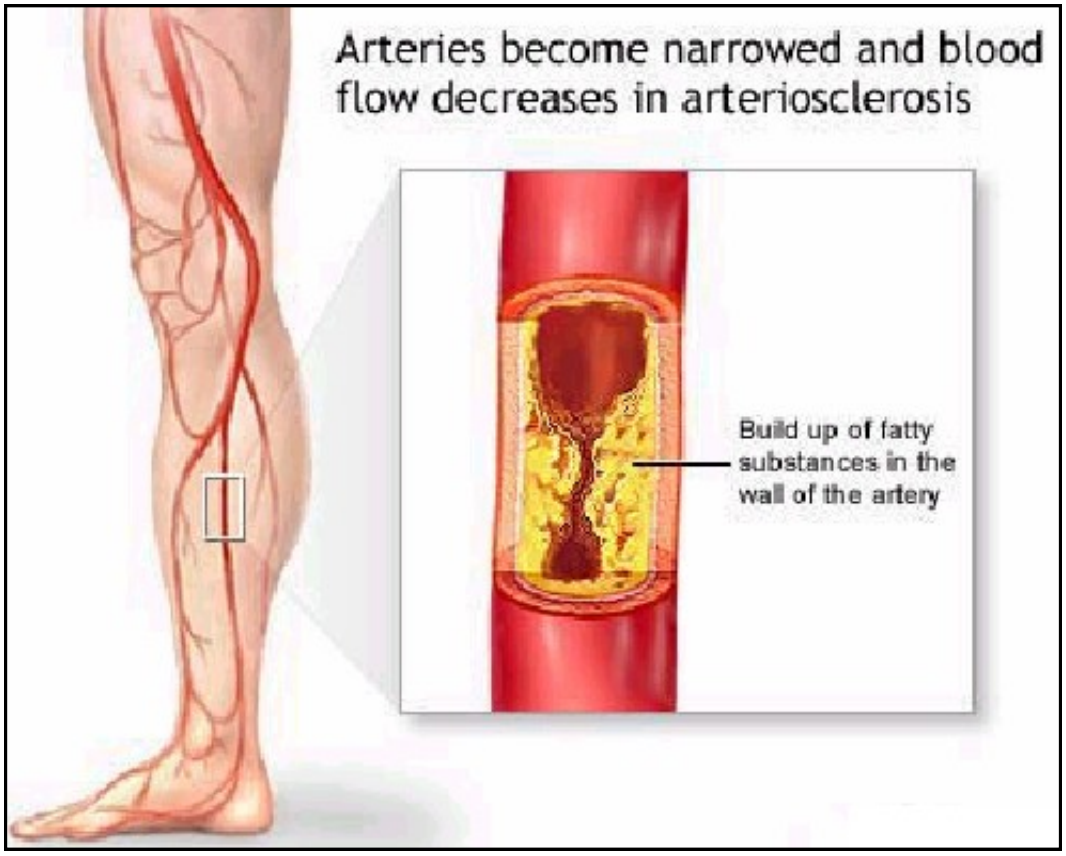
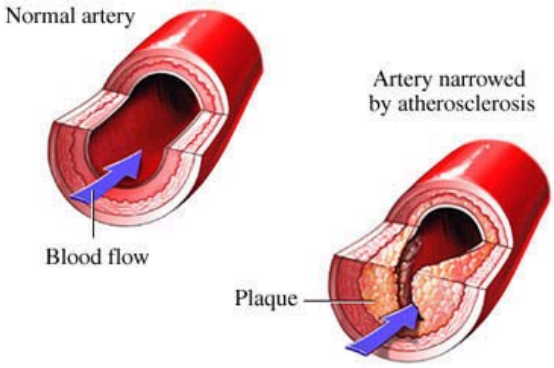


The Vascular System

The human body has an extensive network of blood vessels that transports oxygen-rich blood from the heart to all the cells in the body and removes waste products from these cells. Arteries are the vessels that carry blood from the heart to the body while veins carry blood back to the heart. *Central* blood vessels are those leading directly to or from the heart. *Peripheral* blood vessels are those in the feet, legs, lower abdomen, arms, neck or head.



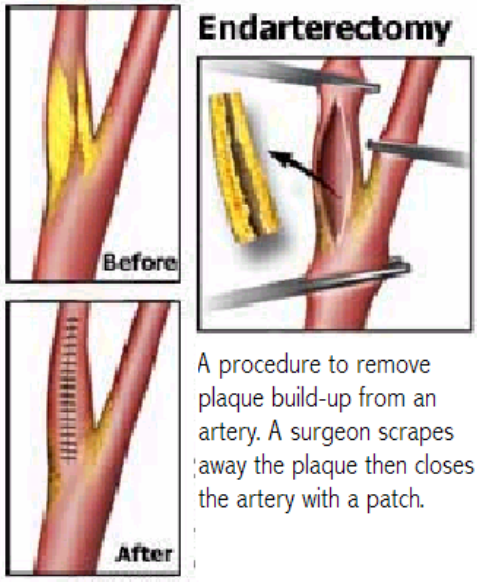
Peripheral Artery Disease

Peripheral artery disease (PAD) is a type of atherosclerosis in which the arteries become hardened and narrowed. The narrowing may progress to total closure of the blood vessel. The walls of the artery become less elastic and cannot allow blood flow to increase when it is needed, such as during exercise. Calcium deposits and cholesterol contribute to the narrowing and stiffness of the artery.

Risk factors for PAD include smoking, high cholesterol levels (especially high LDL and low HDL levels), obesity, diabetes, hypertension (high blood pressure), personal or family history of heart disease or cerebrovascular disease (stroke), kidney disease, and increasing age.

Carotid Artery Disease

Carotid artery disease is a type of PAD where there is atherosclerosis (hardening of the arteries) of the main arteries carrying blood to the brain. People with this disease are at a high risk for having an ischemic stroke caused by lack of blood to a particular area of the brain. This is the most common type of stroke.



A procedure to remove plaque build-up from an artery. A surgeon scrapes away the plaque then closes the artery with a patch.

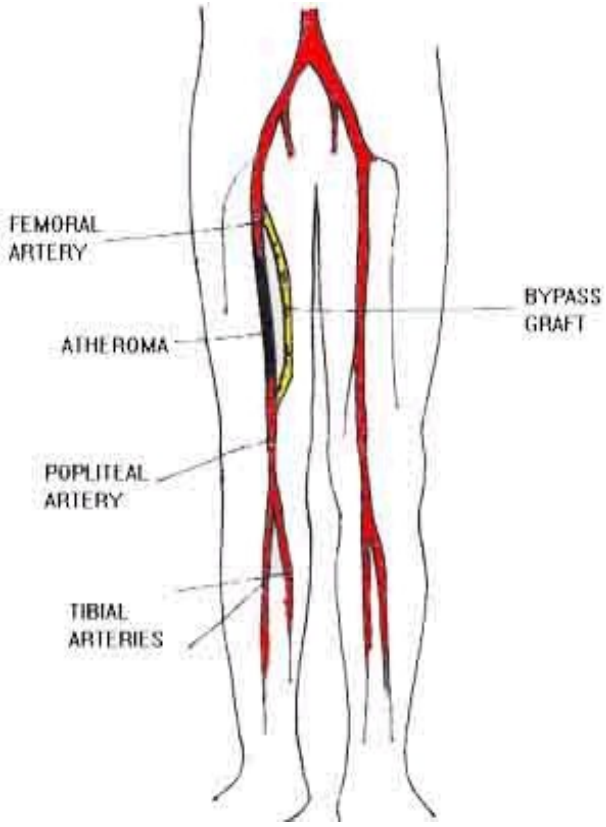
A carotid endarterectomy is the surgical procedure performed for the invasive treatment of carotid artery disease. The patient is put under general anesthesia and a small incision is made in the neck. The artery is opened and the plaque is peeled away from the wall of the artery. A patch is then sewn onto the artery to not only seal it closed but also to improve the flow of blood through the blood vessel.

The procedure requires a 1-2 day stay in the hospital. There may be some swelling in the neck, difficulty swallowing and hoarseness with your voice after the procedure. You may also experience headaches. All of these things will resolve with time, usually in 4-8 weeks.

Lower Extremity Disease

Peripheral vascular disease (PVD) in the legs is due to atherosclerosis in one or more arteries in the lower abdomen or leg that supply blood to the legs and feet. When the blood supply is severely reduced so that a person in unable to walk more than 100 feet and the ability to work or perform essential activities is affected, then surgery is recommended. Bypass surgery is usually performed using either a synthetic graft or a vein from the leg. There are several types of bypass surgery that are performed.

Femoral-popliteal bypass surgery: an incision is made in the groin and the knee of the affected leg. A graft is then sewn past the blockage at the knee and tunneled up to be sewn into the femoral artery in the groin. A hospital stay of 2-5 days is usually required.



Other Vascular Surgeries

Other bypass surgeries are performed to restore circulation to extremities that are not receiving a good blood supply. These include the following:

Aortic-iliac, aortic-femoral or aortic-bifemoral bypass.
These surgeries require an incision in the abdomen and possibly a small incision in one or both groins. A synthetic graft is attached to the aorta and connected to either the iliac or femoral arteries below the blocked area. Blood flows through the graft providing renewed circulation to the legs. This type of surgery requires 1-2 days in ICU and an additional 5-7 days in the hospital. Since it takes several days for your intestines to resume normal function after this surgery, you will have a tube in your nose that goes into your stomach to keep fluids and acid from building up and causing vomiting.

Femoral-femoral bypass.
During this procedure a synthetic graft is attached to the femoral artery in the groin of the unaffected (good) leg and tunneled below the skin of the lower abdomen to the other leg's femoral artery below the blocked area. This graft renews blood flow to the affected leg. A hospital stay of 3-5 days is usually required.

Angioplasty and Stenting
An angiogram is the method where a catheter is inserted into an artery and dye is injected. Pictures are then taken of the arteries. If a blockage is found it may be treated with a balloon and/or stent to open the artery. This is a day procedure that is performed in the cath lab. You may be discharged that afternoon or the next morning.

Care of your incisions

Most incisions take 6-8 weeks to heal. Do not go into a swimming pool, hot tub or take a tub bath until the incisions have completely healed or about 6-8 weeks after surgery. It is okay to take a warm (not hot) shower after discharge from the hospital. Do not perform any activities that put pressure on the incision such as lifting, pushing or pulling anything more than 10 lbs. Do not use creams, powders, oils or lotions unless instructed by the doctor or his staff.

Recovery from Surgery

It is normal to experience the following; all of these will resolve with time:

Pain. The intensity and frequency will differ from day to day. Pain medications range from Tylenol and ibuprofen (Advil, Motrin) to prescriptive narcotics. These medications may not totally relieve the pain, but can make the pain tolerable.

Constipation with intermittent bouts of diarrhea. This is caused by the pain pills as well as the manipulation of the bowels during surgery (if you have an abdominal incision). Eat high fiber foods and take a stool softener or laxative daily.

Swelling in the leg that was bypassed. With an increase in the blood flow to the leg, the veins have a more difficult time bringing blood back to the heart thus causing swelling in the leg. Keep your leg elevated when resting. Walking will also help develop improved circulation.

Low grade fevers (99-101° F). This is caused by the healing process and inactivity.

Some swelling and redness along the incision.

When to Call the Doctor's Office

- Temperature above 102° F.
- Extreme redness, warmth and puffiness on or around the incision.
- Drainage of pus from the incision.
- Severe abdominal pain.

Other Considerations

If you are a smoker, the most important thing you can do after surgery is to **quit smoking.**

Remember that your body is unique. No one can predict how your body will respond to treatment or how quickly it will heal after surgery.