

Aortoiliac Occlusive disease

What is aortoiliac occlusive disease?

Aortoiliac occlusive disease occurs when your iliac arteries become narrowed or blocked. The aorta, your body's main artery, splits into branches at about the level of your belly button. These branches are called the iliac arteries. The iliac arteries go through your pelvis into your legs, where they divide into many smaller arteries that run down to your toes. Aortoiliac disease is considered a type of peripheral arterial disease (PAD), because it affects arteries that carry blood away from your heart to your limbs.

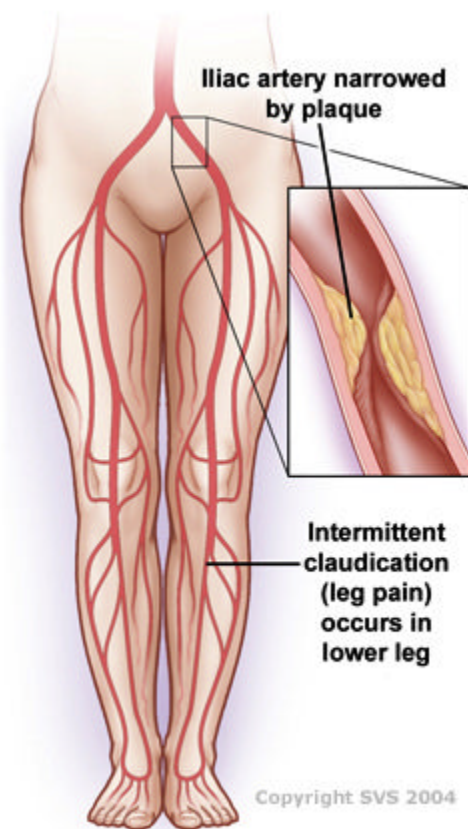


Your arteries are normally smooth and unobstructed on the inside, but as you age, a sticky substance called plaque can build up in the walls of your arteries. Plaque is made up of cholesterol, calcium, and fibrous tissue. As more plaque builds up, it causes your arteries to narrow and stiffen. This process is called atherosclerosis, or hardening of the arteries. Eventually, enough plaque builds up to interfere with blood flow in your iliac arteries or leg arteries. Physicians call this aortoiliac occlusive disease.

When your iliac arteries narrow or become blocked, your legs may not receive the blood and oxygen they need. This lack of oxygen is called ischemia and it can cause pain. In severe cases, sores or gangrene can develop, which can result in you losing a limb. However, these symptoms are uncommon.

What are the symptoms?

Early in the disease, you may feel pain, cramping, or fatigue in your lower body when you walk or exercise. The pain with walking usually occurs in your buttocks, thighs, and legs. This symptom is called intermittent claudication because it stops when you rest. As the disease worsens, you may find that pain occurs when you walk for shorter distances. Ultimately, you may feel pain, usually in your toes or feet, even when you are resting.



Some men who have aortoiliac occlusive disease also experience erectile dysfunction, the inability to have or maintain an erection.

Aortoiliac disease may worsen if it is not treated. Signs that it has advanced include:

- Severe pain, coldness, and numbness in a limb
- Sores on your toes, heels, or lower legs
- Dry, scaly, cracked skin on your foot. Major cracks, or fissures, may become infected if left

untreated

- Weakened muscles in your legs
- Gangrene (tissue death), which may require amputation

If you experience any of these advanced symptoms, it usually means that your leg arteries are blocked in more than one place. Your physician may need to treat more than one site to prevent gangrene or limb loss.

What causes aortoiliac occlusive disease?

Atherosclerosis, or hardening of the arteries, causes most cases of aortoiliac occlusive disease.

Risk factors for hardening of the arteries include:


- Smoking
- High cholesterol
- High blood pressure
- Obesity
- Having a family history of heart disease

In rare cases, a condition known as Takayasu's arteritis may cause blockages in your aorta and its branches. Takayasu's arteritis usually affects young Asian women between the ages of 10 and 30.

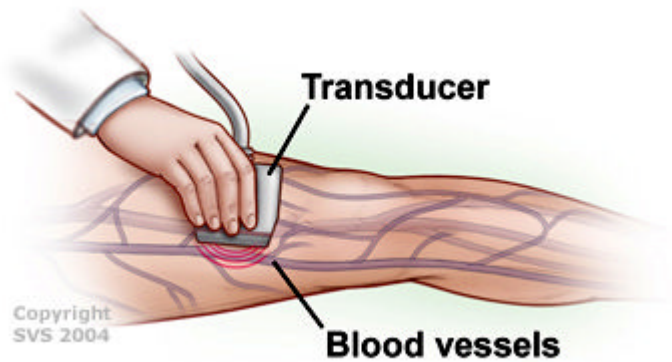
What tests will I need?

First your physician asks you questions about your general health, medical history, and symptoms. In addition, your physician conducts a physical exam. Together these are known as a patient history and exam. As part of your history and exam, your physician will ask you if you smoke or have high blood pressure. Your physician will also want to know when your symptoms occur and how often. A pulse examination that checks your pulse in several places in your legs for weak or absent pulses is part of your physical exam. For this test, your physician will simply place his or her fingers over pulse points.

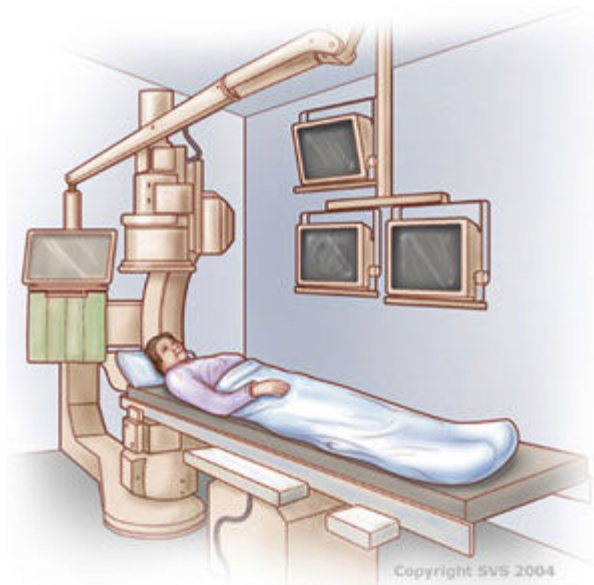
After the history and exam, if your physician suspects you may have aortoiliac disease, he or she will perform tests, such as:

-  **Ankle-brachial index (ABI):** For the ABI, your physician measures your blood pressure in your ankle and in your arm. Your physician will compare the two numbers to determine your ABI. Normally, the blood pressures in your ankle and arm should be about equal. But if your ankle pressure is half your arm pressure (or lower), your leg arteries are probably narrowed. To perform the ABI, your physician will use an ordinary blood pressure cuff and an ultrasound device. The ABI helps your physician diagnose aortoiliac disease, but it does not identify which arteries are blocked.

- **Doppler ultrasound:** Doppler ultrasound uses high-frequency sound waves that bounce off of blood cells and blood vessels to show blood flow and problems with the structure of blood vessels. This test identifies specific arteries that are blocked.



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Angiography: In this test, your physician injects a contrast dye into your arteries and then takes x rays. The structure of your arteries appears on the x ray because x rays cannot pass through the dye. This test finds the exact location and pattern of blockages.

How is aortoiliac occlusive disease treated?

Lifestyle changes

In mild to moderate cases, your physician may recommend that you change certain aspects of your lifestyle. If you are a smoker, the most important step you can take is to **quit smoking**. Chemicals in tobacco can damage your arteries. These chemicals can also increase your chance of having complications from aortoiliac occlusive disease.

In addition to quitting smoking, your physician may recommend that you **maintain a healthy weight**, follow a **structured walking program** at least 3 or 4 times a week, and **eat a low-fat and high-fiber diet**. These changes help slow hardening of the arteries.

If you have diabetes, you need to **control your blood sugar levels**. If necessary, your physician may prescribe **medications to lower high cholesterol and high blood pressure**.

If you have diabetes, your physician may recommend that you receive **foot care** from a qualified healthcare professional and learn the basics of caring for your feet at home. This includes practicing foot hygiene, wearing protective, well fitting, and cushioned footwear, and avoiding injuries to your foot. This type of care can be very important because you can lose feeling in your feet and develop sores on them.

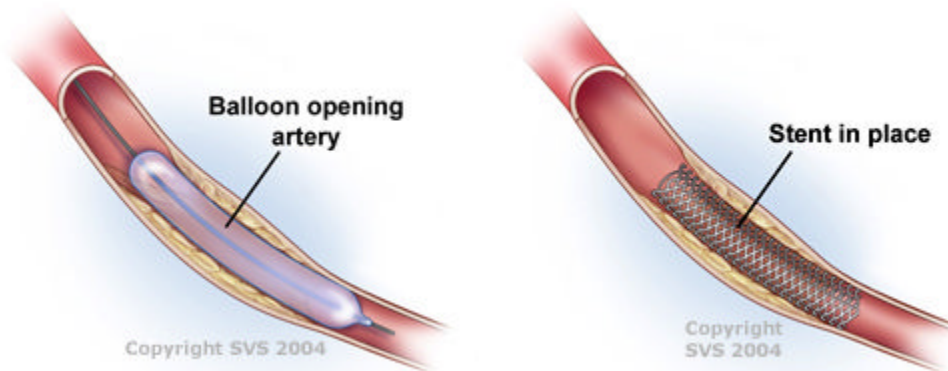
Medications

If you do not have a disqualifying medical condition, such as heart failure, your physician may also prescribe **cilostazol (Pletal)**, which can improve the distance you are able to walk without pain. Other drugs your physician may prescribe include **aspirin or clopidogrel (Plavix)**, either of which can lower your chances of blood clots.

Angioplasty or Surgery

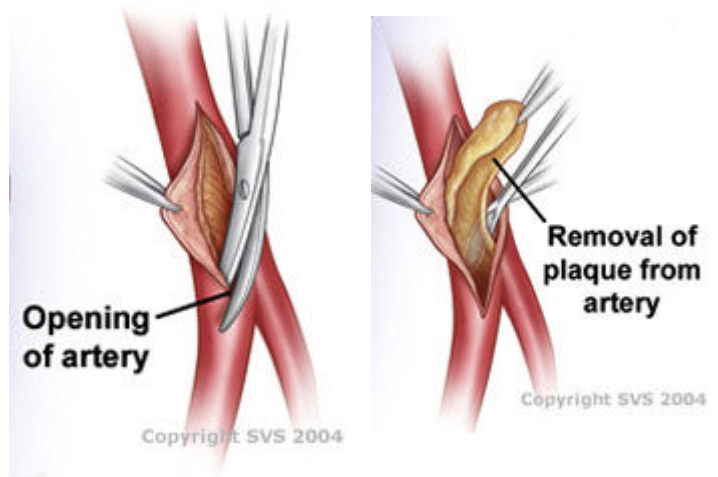
If you have severe aortoiliac occlusive disease, particularly if it does not improve with the measures described above, your physician may recommend surgery or a minimally invasive treatment called angioplasty to improve the circulation in your legs. The choice of the treatment depends upon the pattern and extent of the blockages.

In an **angioplasty**, a long, thin, flexible tube called a catheter is inserted into a small puncture over an artery in your leg and is guided through your arteries to the blocked area. Once there, a special balloon attached to the catheter is inflated and deflated several times. The balloon pushes the plaque in your artery against your artery walls, widening the vessel. A tiny mesh-metal tube called a stent may then be placed into the narrowed area of your artery to keep it open. The stent remains permanently in your artery. After successful angioplasty, blood flows more freely through your artery.



Bypass surgery creates a detour around the narrowed or blocked sections of your artery. A Y-shaped tube made of synthetic fabric, called a graft, is attached to your aorta above the blockage. The two branches of the graft are then attached to either your left and right iliac arteries or other major arteries in each leg (called the femoral arteries). Bypass surgery restores blood flow in about 85 percent of patients. Results are commonly maintained for 10 or more years.

An **endarterectomy** is a way for your surgeon to remove the plaque from your artery. To perform an endarterectomy, your vascular surgeon makes an incision in your leg and removes the plaque contained in the inner lining of the diseased artery. This leaves a wide-open artery and restores blood flow through your leg artery.



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