

---

# Diseases of the veins

## What is claudication?

Claudication is a common condition in which pain occurs in the legs with exercise. The pain is the result of a reduction in the bloodflow to the muscles of the legs.

## What causes claudication?

The cause of claudication is hardening of the arteries (called atherosclerosis). Arteries are the blood vessels that supply oxygen and nutrients to the tissues, including muscles. When you walk, the leg muscles need more oxygen than when you are at rest. Muscles become painful if they can't get enough oxygen. After you rest your muscles, the oxygen levels in them return to normal and it is possible to walk again for about the same distance before the pain returns.

## How will I know if I have claudication?

The most common symptom is a cramp-like pain developing in the calf muscles when you walk. The thigh and buttock muscles can also be painful. If you rest briefly, the pain goes away and you will find it comfortable to walk again.

## Tests for claudication

Doctors use the distance that you can walk along flat ground (not uphill) before the pain starts as a rough guide to the severity of your condition. Doctors will examine the pulses in the leg to see if they are weaker than normal or absent. To confirm their diagnosis, they can measure the blood pressure in your legs when you are at rest, and after you have walked on a treadmill.

## Treatment of claudication

The most important part of the treatment for claudication is to make sure your arteries do not get any worse.

Atherosclerosis affects not only the arteries in your leg, but also those to your heart (which

can cause heart attacks), and to your brain (which can cause strokes). Claudication can, therefore, be a warning of more serious disease.

- If you smoke, it is vital that you stop smoking completely.
- You will also be tested for diabetes, high blood pressure (called hypertension) and raised cholesterol. If these are thought to be contributing to the atherosclerosis, you might need to go on a special diet or take some medication.
- If you are overweight, losing weight will help your arteries and enable you to walk further.
- To help your arteries, your doctor might advise you to take a small dose of aspirin once a day.
- Regular exercise is also good for the legs.

## Walking will help

When you have claudication, walking can be frustrating because of the frequent stops that are necessary when the legs become painful. However, it is important to persist and try to walk each day, increasing the distance as the legs improve.

Do not try to 'walk through the pain'.

Over a period of three to six months, the muscles in the legs will become more efficient, enabling you to walk further on the limited blood supply. In addition, the bloodflow in the leg(s) will increase as smaller non-diseased arteries increase in size.

It is actually uncommon for the legs to get worse. Many patients are worried that they might have to have part of their leg removed. If you receive appropriate treatment and look after yourself, this is extremely unlikely and not a cause for concern.

If the claudication remains troublesome, then you will need an ultrasound scan of the leg (which uses sound waves to see the bloodflow) or an angiogram (a type of X-ray with contrast medium injected) to see exactly where the narrowings or blockages in the arteries are.

## Angiograms

Angiograms are performed on an X-ray table and take approx. 20 to 30 min. Using a local anaesthetic, a needle is placed in the artery in your groin and a wire and catheter are passed into the artery so that dye can be injected. Using an X-ray to detect the dye, doctors can see where arteries are blocked or narrowed.

## Angioplasty

Doctors can treat some narrowings and blockages in your arteries using a special balloon to

stretch the artery open again. This operation is called an angioplasty. It is similar to having an angiogram, except you will feel a little discomfort while the artery is actually being stretched.

If there is a long or very hard blockage in the artery, it might not be possible to do an angioplasty. In these circumstances, if the claudication is bad, a bypass operation will be considered and discussed with you. This provides a parallel blood supply to the tissues but means taking a vessel from another part of your body.

In some cases, the risks of angioplasty or bypass surgery are too high, and a longer period spent exercising, losing weight etc is needed before the surgery can be considered.

These operations are all highly advanced, and discussion about them (including their risks and benefits) should always be between the patient and a specialist surgeon. Referrals can only be accepted from general practitioners or other specialists.