

# Intermittent claudication

**The aim of this information sheet is to help answer some of the questions you may have about intermittent claudication. If you have any questions or concerns, please do not hesitate to speak to a doctor or nurse caring for you.**

## What is intermittent claudication?

Intermittent claudication is caused by a narrowing or blockage in the main artery taking blood to your leg (femoral artery). This is due to hardening of the arteries (atherosclerosis). The blockage means that blood flow in the leg is reduced.

Blood circulation is usually sufficient when resting but when you start to walk the calf muscles cannot obtain enough blood. This causes a cramp and pain which gets better after resting for a few minutes. If greater demands are made on the muscles such as walking up hill, the pain comes on more quickly.

Claudication usually occurs in people over the age of fifty; however it can occur much earlier in people who smoke, those who have diabetes, high blood pressure or high cholesterol. Unfortunately the blockage which causes the claudication will not clear by itself, but the situation can improve. Smaller arteries in the leg may enlarge to carry blood around the blockage in the main artery, this is called collateral circulation. Many people notice some improvement in their pain as the collateral circulation develops. This normally happens within six to eight weeks of the start of claudication symptoms.

## How is claudication detected?

A blockage in the circulation can be detected by examining the pulses and blood pressure in the legs. A blockage will lead to loss of one or more pulses in the leg. The blood pressure in your feet is measured using a handheld ultrasound device called a Doppler. The blood pressure in the foot can be measured and compared with arm blood pressure (which is usually normal). This measurement is called the ABPI (Ankle Brachial Pressure Index) and is expressed as a ratio. The ABPI provides an objective measure of the lower limb circulation.

Sometimes an arteriogram may be performed. An arteriogram is an x-ray of the arteries performed by injecting contrast (dye) into the artery at groin level. The contrast outlines the flow of blood in the arteries as well as any narrowing or blockages.

## Treatments

Claudication does not usually result in a loss of limb and it is not necessary to treat it if the symptoms are mild. Claudication often remains stable with no deterioration in walking distance over long periods of time.

Less than one in ten patients will notice a reduction in walking distance during their lifetime. However if your symptoms worsen, there are treatments available which you can discuss with your vascular consultant.

General measures to improve walking distance include stopping smoking, taking more exercise, and making sure you are not overweight.

Blood tests to rule out other causes of atherosclerosis are often done. These will include a blood sugar test to exclude diabetes, thyroid and kidney function tests and a cholesterol test. There are a number of drugs which claim to improve walking distance. These aren't used by vascular consultants as the evidence for their effectiveness is very limited. There is evidence that taking aspirin or an antiplatelet medication is generally good for people with circulation disorders. Please consult with either your GP or vascular consultant for more information.

## Four approaches to treating claudication

- **Exercise** - exercise has been shown to more than double your normal walking distance. If you don't attend a hospital based exercise programme a brisk walk three times a week lasting 30 minutes will normally noticeably improve walking distance over 3-6 months.
- **Angioplasty** - angioplasty (stretching the artery where it is narrowed with a balloon) may help to improve walking distance for some people. Overall it is less effective in the longer term than simple exercise. Angioplasty is usually limited to narrowing or short blockages (usually less than 10cm) in the artery.
- **Surgery** - bypass surgery is usually reserved for longer blockages (usually more than 10cm) of the artery, when the symptoms are significantly worse. Surgery may also be required if you have very short distance claudication, pain when resting, ulceration of the skin in the foot, or even gangrene in the foot or toes.
- **Medication** - when diagnosed with intermittent claudication you will be started on medication which lowers your cholesterol called a Statin, and Aspirin which is used as a blood thinning agent to help prevent the development of blood clots. If you are allergic to these medications please alert your doctor immediately so that suitable alternatives can be prescribed.

## Is treatment successful?

The simple exercise programme is very successful at increasing the walking distance. It provides a long term solution for the majority of people and most importantly it is safe.

Because surgery (and to a lesser extent angioplasty) is not always successful, it can normally only be justified when the limb is threatened. There will usually be pain keeping you awake at night, or ulceration or gangrene of the foot or toes.

Half of the bypasses performed will need some "maintenance" procedure to keep them going. This may be an x-ray procedure or might involve further surgery.

## What is the risk of losing my leg?

Very few patients with intermittent claudication will ever be at risk of losing a leg through gangrene. It is the vascular consultant's job to prevent this outcome at all costs. If there is thought to be any risk to the limb a vascular consultant will always act to save the leg if at all possible.

You can minimise the risk of progression of your symptoms by following the advice below. It is the simple measures which are the most effective. The vast majority of patients do not need x-ray or surgical procedures to treat their symptoms.

## What can I do to help myself?

**Smoking:** If you are a smoker the single most important thing you can do to help yourself is to give up smoking. Tobacco is particularly harmful to claudicants for two reasons:

- 1) Smoking speeds up the hardening of the arteries, which is the cause of the claudication
- 2) Cigarette smoke prevents development of the collateral blood vessels which get blood past the blockage

Stopping smoking will also help to protect all of your arteries making it less likely that you will suffer from heart attacks or strokes. Giving up is not easy but there is a smoking cessation service and support groups that can help. Your vascular specialist nurse or GP practice nurse can advise you about these. You can contact the free NHS smoking helpline on 0800 022 4 322 or the Knowledge & Information Centre (KIC) (details below) who will give you details of our support services.

**Inactivity:** Gentle exercise such as walking and cycling are recommended to help improve your overall level of fitness. Exercise helps your body to produce healthy cholesterol and this helps to protect your arteries against bad cholesterol.

**High blood pressure:** It is very important that you have your blood pressure checked regularly, at least every six months. If you have been prescribed medications for high blood pressure, you must make sure that you take it according to the instructions given.

**Diabetes:** If you have diabetes it is important that your blood sugar levels are well controlled.

**High blood cholesterol levels (fatty substance in your blood):** You should eat a healthy balanced diet and try to reduce any excess weight. It is important to reduce the level of cholesterol in your blood. Your vascular nurse can refer you to a dietician if needed. You may be prescribed medication to help lower your cholesterol level (e.g. a statin) and low-dose aspirin to help prevent blood clots from forming.

## Will I have a follow-up appointment?

You will be sent a follow up appointment in the post. You will need to have scans at regular intervals to make sure that the graft remains in the correct position. You will have your first scan after three months and see your consultant in outpatients after four months.

## Appointments at King's

We have teamed up with King's College Hospital in a partnership known as King's Health Partners Academic Health Sciences Centre. We are working together to give our patients the best possible care, so you might find we invite you for appointments at King's. To make sure everyone you meet always has the most up-to-date information about your health, we may share information about you between the hospitals.

## Contact us

If you have any questions or concerns before or after you have left hospital, please contact the **vascular specialist nurses on 07825 503902** (Monday to Friday 8am–4pm).

You can also contact **Luke ward on 020 7188 3566** or **Sarah Swift ward on 020 7188 8842** (24 hours) and speak to the ward sister or nurse in charge.

The above contacts can put you in touch with the following vascular consultants should you wish to do so: **Miss Rachel Bell, Mr Stephen Black, Mr Michael Dialynas, Mr Tommaso Donati, Mr Bijan Modarai, Mr Morad Sallam, Mr Mark Tyrell, Mr Hany Zayed, Mr Said Abisi, Mrs Sanjay Patel, Miss Becky Sandford, Mr Andrew McIrvine.**

For more information leaflets on conditions, procedures, treatments and services offered at our hospitals, please visit [www.guysandstthomas.nhs.uk/leaflets](http://www.guysandstthomas.nhs.uk/leaflets)

## Pharmacy Medicines Helpline

If you have any questions or concerns about your medicines, please speak to the staff caring for you or call our helpline.

**t:** 020 7188 8748 9am to 5pm, Monday to Friday

## Your comments and concerns

For advice, support or to raise a concern, contact our Patient Advice and Liaison Service (PALS). To make a complaint, contact the complaints department.

**t:** 020 7188 8801 (PALS)

**e:** [pals@gstt.nhs.uk](mailto:pals@gstt.nhs.uk)

**t:** 020 7188 3514 (complaints)

**e:** [complaints2@gstt.nhs.uk](mailto:complaints2@gstt.nhs.uk)

## Language Support Services

If you need an interpreter or information about your care in a different language or format, please get in touch using the following contact details.

**t:** 020 7188 8815 **fax:** 020 7188 5953

## NHS 111

Offers medical help and advice from fully trained advisers supported by experienced nurses and paramedics. Available over the phone 24 hours a day.

**t:** 111

## NHS Choices

Provides online information and guidance on all aspects of health and healthcare, to help you make choices about your health.

**w:** [www.nhs.uk](http://www.nhs.uk)

## Become a member of your local hospitals, and help shape our future

Membership is free and it is completely up to you how much you get involved. To become a member of our Foundation Trust, you need to be 18 years of age or over, live in Lambeth, Southwark, Lewisham, Wandsworth or Westminster or have been a patient at either hospital in the last five years.

To join, please call 0848 143 4017, email [members@gstt.nhs.uk](mailto:members@gstt.nhs.uk) or visit [www.guysandstthomas.nhs.uk](http://www.guysandstthomas.nhs.uk)

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