

## Information for patients

# Leg Artery Disease



smoke-free hospitals

Northern General Hospital

You have been diagnosed as having Leg Artery Disease. This leaflet explains more about leg artery disease and answers some of the most frequently asked questions. If, after reading it, you have any more questions or concerns, you should write them down and discuss them at your next appointment.

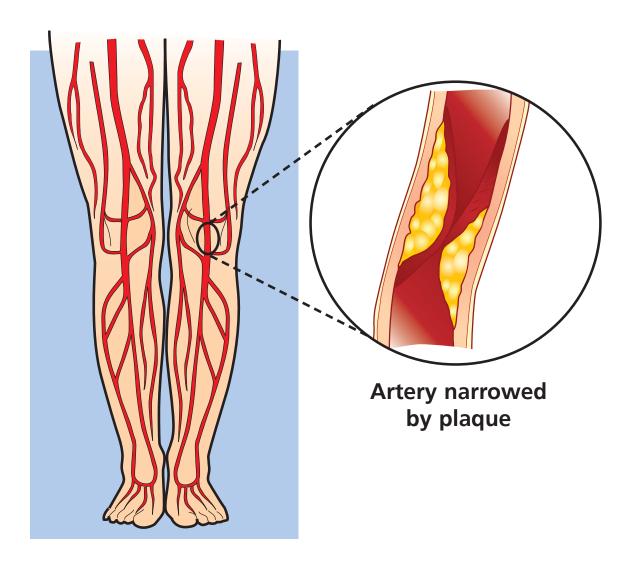
## Where will my hospital appointments take place?

Your appointments will be at the Sheffield Vascular Institute at the Northern General or Royal Hallamshire Hospitals. We also run local outpatient clinics at Rotherham and Barnsley District hospitals.

The Sheffield Vascular Institute is one of the largest vascular centres in Europe. We specialise in the treatment of all circulatory conditions affecting the arteries, veins and lymphatics. If you wish to find out more about the Sheffield Vascular Institute then look under the Guide to Services of the Sheffield Teaching Hospitals NHS Foundation Trust website ( http://www.sth.nhs.uk )

## What is leg artery disease?

The aorta is the largest artery in your body, and it carries blood away from your heart. Just beneath your navel (belly button) in your abdomen (tummy), the aorta splits into the two iliac arteries, which carry blood into each leg. When the iliac arteries reach your groin, they split again to become the femoral arteries. Many smaller arteries branch from your femoral arteries to take blood down to your toes. Any of these arteries can become diseased.



Your arteries are normally smooth on the inside but they can become blocked by a process called **atherosclerosis** (hardening of the arteries). A sticky substance called plaque, builds up in the walls of your arteries. Plaque is made up of cholesterol, calcium, and fibrous tissue. As more plaque builds up, your arteries narrow and stiffen and the blood flow to your legs is reduced.

You may feel well, but still have leg artery disease or similar blockages in other arteries to the heart or brain. It is important to recognise this disease, because it also increases your risk of a heart attack or stroke.

### What causes leg artery disease?

Atherosclerosis is the main cause of leg artery disease. As you get older, your risk of developing leg artery disease increases. People older than 50 years have an increased risk of developing the disease, and men have a greater risk than women. Other factors that increase your chances of developing the disease include:

- Smoking
- Diabetes
- High blood pressure
- High levels of fat in your blood (cholesterol or triglycerides)
- Obesity (weight 30 percent more than your ideal weight)

### What symptoms will I experience?

You may not feel any symptoms from leg artery disease at first. The most common symptom is Intermittent Claudication (IC). IC is discomfort or pain in the muscles of your legs that happens when you walk and goes away when you rest. You may not always feel pain; instead you may feel a cramping, tightness, heaviness or weakness in your legs. IC often occurs more quickly if you walk uphill or up a flight of stairs. Over time, you may begin to feel IC at shorter walking distances.

Only about half of the people with leg artery disease have blockages severe enough to experience IC. IC can improve as smaller blood vessels develop and these divert blood around the blockages. These are called collaterals. The development of these collaterals is helped by exercise and stopping smoking.

## Will my symptoms get worse?

A minority of those people with artery disease will get worse. If your artery disease worsens significantly, your legs may not get enough oxygen when you are resting. You may then begin to experience pain in your feet or toes, even when you are not walking. This pain is often worse when you lie down at night.

In severe leg artery disease, you may also develop painful sores on your toes or heels. If the circulation in your leg does not improve, the surrounding tissue may die and turn black. This is called gangrene and it is very serious as limb loss (amputation) may result. The risk is decreased by stopping smoking.

## What will happen when I come for my hospital appointment?

You will be seen by a specialist in Vascular Disease. Your specialist will ask you questions about your general health, medical history, and symptoms, before examining the arteries supplying your legs. A simple non-invasive test called an ankle-brachial pressure index (ABPI), which compares the blood pressure in your legs and arms, is often performed. Blood tests will also be taken to exclude diabetes, high cholesterol and other risk factors for atherosclerosis.

## Will I need any further tests?

Your specialist will decide if you need any more tests, which will take place at another appointment. These can include:

- An exercise test if there is any doubt about the diagnosis of IC, as sometimes back problems can cause similar symptoms.
- Duplex ultrasound which uses high-frequency sound waves to measure blood flow and detect any narrowing or blockages in your arteries.
- Magnetic Resonance Angiography (MRA) which uses magnetic fields and radio waves to show the narrowing and blockages inside your arteries.
- Contrast arteriography which involves the injection of dye into the artery in your groin. X-ray pictures of the highlighted arteries are then taken. This procedure is only done if hospital treatment is being planned, as it requires day case admission. Further information is available about this test (see separate information sheet).

#### Will I need treatment?

For most people IC can be improved by making lifestyle changes. These include:

- Stopping smoking
- Losing weight (if overweight)
- Taking regular exercise

You will also be advised on medication that you need to take (see next section). A combination of all of these things can improve symptoms and intervention by endovascular treatment or surgery is often not required.

However, in more severe cases of leg artery disease, stopping smoking, diet, exercise and medication may not be enough to improve your symptoms. Your specialist may then recommend endovascular treatment or surgery.

The choice of such treatment depends upon the pattern and extent of the blockages as well as other factors, such as your general health and the presence of other medical conditions. Further information is available about intervention for leg artery disease (see separate information sheet).

# Are there any tablets I can take to help my symptoms?

You will need to take an anti-platelet agent such as aspirin or clopidogrel (Plavix). These reduce the stickiness of the blood to minimize the chances of clots blocking your narrowed arteries. You may be prescribed warfarin, rather than an anti-platelet agent, if you have an irregular heart beat (atrial fibrillation).

If you do not take medication for cholesterol (fat in the blood stream) we will ask for your GP to arrange this for you. This is an important part of the treatment for IC even if your cholesterol level is within normal limits.

It is also important that your blood pressure is well controlled and this may need treating with medication. Your GP will arrange this for you if needed. Good control of diabetes (if you are diabetic) is also important.

## How can I help myself?

#### Stop smoking

Smoking is a major cause of arterial disease. Continuing to smoke will also reduce the chance of other treatments working. The best way to stop smoking is to get medical help from your GP surgery or a smoking cessation service. These are all available in Sheffield, Rotherham and Barnsley and your specialist can advise you further. It is better to choose a day to stop rather than trying to cut down gradually, but help to support you with this is very important and will give you a better chance of stopping. If your partner smokes, then they should stop at the same time. we appreciate that it is very difficult to stop smoking but it is possible. This is the most important lifestyle change that you can make, and will help in stopping the progression of IC in the future.

#### Lose weight

If you weigh more than your ideal body weight, your legs have to work harder when you walk. Losing weight is the quickest way to improve your walking distance. Eating foods low in saturated fat (for example fresh fruit and vegetables) will help you to lose weight and also reduce the level of cholesterol in your blood. This will slow the progression of arterial disease. Your GP may be able to help you with weight loss, or refer you to a specialist weight loss service which is available in some areas.

#### **Exercise**

We recommend that exercise such as walking for 30 minutes, 3 times a week, will improve your walking distance over time. Walk until the pain stops you, rest and then walk again. Walking sticks or poles may also improve your walking distance. Exercise in the gym or at home on an exercise bike or a cross-trainer is a good way of taking exercise in bad weather, as is swimming. Some pools offer aquaerobics classes, which are ideal.

#### **Useful contacts**

The Vascular Society:

www.vascularsociety.org.uk

The Circulation Foundation:

www.circulationfoundation.org.uk

This information can be made available on request in alternative formats including Braille, large print, audio, electronically and other languages. For further details email: alternativeformats@sth.nhs.uk

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