NHS
Northern Care Alliance
NHS Group

Peripheral Arterial Disease

An information guide

Health & care information you can trust

The Information Standard Certified Member

Peripheral Arterial Disease

Introduction

This leaflet has been designed to explain some of the things you need to know about peripheral arterial disease.

It is not a substitute for the advice which the doctor or specialist may give you, but can act as a starting point for discussion.

Consent to store your personal information

Vascular surgeons record information about surgical interventions on the National Vascular Register (NVR).

This is a secure database that is used to help monitor and improve vascular services throughout the country. Therefore, you (or your nearest relative) may be asked to give permission for your personal information to be stored on the NVR. Although the database is a national system, strict data governance means personal details on the NVR can only be accessed by staff directly involved in an individual's treatment.

Patient information is confidential and is not passed on to third parties other than healthcare professionals directly involved in an individual's care. You need to confirm with your vascular surgeon whether you are happy for them to store your personal information on the NVR.

What is peripheral arterial disease?

Peripheral arterial disease sometimes referred to as PAD, is a common problem that affects 20% of the adult population over the age of 60.

Arteries which carry blood oxygen and nutrients around the body become narrowed or blocked due to deposits of plaque sticking to the artery wall - otherwise known as atherosclerosis or hardening of the arteries.

This process can occur to any of the arteries in the body and therefore if you have been diagnosed with PAD, it is likely that the arteries to the brain and the heart may be affected leaving you at higher risk of suffering from a stroke or a heart attack.

What are the causes of peripheral arterial disease?

PAD develops over many years and is more common in men than women. Although the disease process is still not fully understood we know that there are certain risk factors that speed up the process.

These are:

- Smoking
- Diabetes
- High blood pressure
- High cholesterol
- Diet and weight

Hardening of the arteries can also be hereditary. If you have a history of vascular disease in your family, you may want to discuss this with your healthcare practitioner.

What are the symptoms of peripheral arterial disease?

Intermittent Claudication

Approximately half of the people with PAD will develop symptoms. One of the most common symptoms you may experience is intermittent claudication, a pain in the leg muscle, which is brought on by walking.

When you slow down or stop, the pain wears off after a few minutes and it becomes possible for you to walk again.

When you start walking again the pain will reoccur causing you again to stop for a few minutes. The distance you can walk before the symptoms occur can depend on a number of factors;

- If you are walking uphill or up stairs or at a fast pace, the pain will come on sooner.
- As the disease progresses the walking distance will become shorter.

Will it get worse?

For the majority of people, the condition will remain stable or may even improve due to the opening up of smaller blood vessels around the narrowing otherwise known as collateral circulation.

This normally happens within six to eight weeks of the start of the claudication symptoms or following changes in your lifestyle. See the section on **'what can I do for myself?'** on page 8.

Critical Limb Ischaemia

In some people the disease progresses and the amount of blood supply to the leg is not enough to provide oxygen and nutrients to the feet.

Without the oxygen and nutrients the skin is unable to function properly and the skin can break down into an ulcer. This can result in burning or aching pain in your foot or toes at rest. The only way

to relieve this pain is to hang your leg out of bed or sleep in a chair.

In a small number of extreme cases (approximately 3 out of 100 people with PAD), if left untreated the lack of blood supply can lead to gangrene, ulceration or rest pain.

Amputation is used as a last resort when it is not possible to improve the blood supply in any other way and the risk of infection becomes life threatening.

How is claudication detected?

A blockage in the circulation can be detected by examining the pulses and blood pressures 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 continuous wave Doppler. The blood pressure in the foot can be measured and compared with arm 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 measurement of the lower limb circulation.

What are the treatments for Peripheral Arterial Disease?

Claudication is not usually limb threatening and it is not necessary to treat surgically if the symptoms are mild. You will usually be prescribed medicines by your GP to help prevent heart attacks, strokes and worsening arterial disease.

Claudication often remains stable with no deterioration in walking distance over long periods.

Less than one in ten patients will notice any reduction in walking distance during their lifetime. However if your symptoms worsen, there are treatments available which you can discuss with your vascular surgeon. General measures to help 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 is strong evidence that taking antiplatelets (eg clopidogrel or aspirin) and cholesterol lowering (eg atorvastatin or simvastatin) medicines daily, is generally good for people with circulation disorders. They help prevent against associated heart attacks and strokes.

Please consult either your GP or vascular surgeon for more information. There is a medicine (naftidrofuryl), which can help improve walking distance in some people with PAD.

There are three approaches to treating the claudication itself:

Regular moderate exercise

Regular moderate exercise has been shown to more than double walking distance. Some communities can offer an exercise programme with structured exercises.

If this is not available, a brisk (the best you can do) walk three times a week up to the limit of your leg discomfort for up to 30 minutes, will normally noticeably improve walking distance over 3-6 months.

It will also help with general vascular health. If you have other long term health conditions, you may need to discuss exercise with your GP first.

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 complete blockages (usually less than 10cm) in the artery.

Surgery

Bypass surgery is usually reserved for longer blockages of the artery, when the symptoms are significantly worse. Particulary in patients with pain at rest, ulceration of the skin in the foot, or gangrene in the foot or toes.

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 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 teams' job to prevent this outcome at all costs.

If there is thought to be any risk to the limb a vascular surgeon will always act to save the leg if at all possible.

You can minimise the risk of progression of our 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 - STOP SMOKING! If you are a smoker the single most important thing you can do to help yourself is to give up smoking. 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 please see page 11.

Inactivity - Moderate or gentle exercise such as walking and cycling are recommended to help to improve your overall level of fitness. Exercise helps your body to produce healthy cholesterol and this helps to protect your arteries against bad cholesterol. It is generally recommended that you aim to do about 150 minutes of moderate exercise per week.

High blood pressure - high blood pressure is a known risk factor for early heart attacks and many other vascular problems. It is very important that you have your blood pressure checked regularly, at least every 6 months. If you have been prescribed medication for high blood pressure you must make sure that you take it daily 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 when you have arterial disease: you will be given advice on how to do this. Your vascular nurse can refer you to a dietician if needed.

Medication - all people with arterial disease are likely to be prescribed low dose aspirin or clopidogrel (to thin the blood) and cholesterol lowering medicines daily (such as statins), to help reduce your associated risks of heart attacks and strokes. These

medicines will usually be continued indefinately. It is very important to take them daily and discuss any concerns, problems or side effects with your GP is necessary.

Complications and what to look out for

If you think that there is something wrong, for example your symptoms deteriorate significantly you should contact your GP for a further appointment with the vascular team.

The things to keep a look out for and to tell the vascular team about are:

- If you develop sudden onset of cold, pale/white, painful or numb leg then contact the hospital immediately.
- If you develop any blue/black discolouration of the toes (gangrene) or ulceration which fails to heal with appropriate dressing care contact either your GP or the vascular consultant secretary for a further appointment.

Contact numbers

If you have any questions or queries you can contact your GP or the Vascular Team.

Hospital switchboard - Telephone: 0161 624 0420

Vascular Consultant Secretaries - Telephone:

0161 627 8698 / 0161 627 8981 / 0161 627 8826

Vascular Nurses - 0161 778 5090

Ward T3 - Telephone: 0161 627 8850

Smoking Cessation

Smoking cessation services are available locally for people who want to quit smoking or who have already decided to stop.

Bury Lifestyle Service contact the team on 0161 253 7554 or by email at: LifestyleService@bury.gov.uk

Heywood, Middleton & Rochdale Stop Smoking Support Clinics

Living Well contact the team on 01706 751190

Oldham

Positive steps contact the team on 0800 288 9008 Stop smoking advice and information is also available from the following:

- Your GP
- Your local pharmacy
- NHS Stop Smoking Helpline on: **0300 123 1044**
- NHS Smokefree website: **www.nhs.uk/smokefree**

You may like to look at the following websites for further information. However, as we are not responsible for these websites we cannot endorse them.

Circulation foundation

https://www.circulationfoundation.org.uk/

Vascular services quality improvement programme

https://www.vsqip.org.uk/

The National Vascular Registry (NVR) is a clinical audit that vascular specialists use to monitor their practice. Hospitals send data to the NVR and the NVR analyses this to provide information on their standard of clinical care and patient outcomes. This allows hospitals to know where they are doing well, as well as highlight areas that they can improve.

Publishes a number of patient information leaflets to help identify and treat vascular illness. It also funds research into the prevention of vascular disease.

If English is not your first language and you need help, please contact the Interpretation and Translation Service

Jeśli angielski nie jest twoim pierwszym językiem i potrzebujesz pomocy, skontaktuj się z działem tłumaczeń ustnych i pisemnych

اگر انگریزی آپ کی پہلی زبان نہیں ہے اور آپ کو مدد کی ضرورت ہے تو ، براہ کرم ترجمانی اور ترجمہ خدمت سے رابطہ کریں

Dacă engleza nu este prima ta limbă și ai nevoie de ajutor, te rugăm să contactezi Serviciul de interpretare și traducere

ইংরাজী যদি আপনার প্রথম ভাষা না হয় এবং আপনার সাহায্যের প্রয়োজন হয় তবে অনুগ্রহ করে দোভাষী এবং অনুবাদ পরিষেবাটিতে যোগাযোগ করুন

إذا لم تكن الإنجليزية هي لغتك الأولى وتحتاج إلى مساعدة ، فيرجى الاتصال بخدمة الترجمة الشفوية والتحريرية

: 0161 627 8770

: interpretation@pat.nhs.uk

To improve our care environment for Patients, Visitors and Staff, **Northern Care Alliance NHS Group** is Smoke Free including buildings, grounds & car parks.
For advice on stopping smoking contact the Specialist Stop Smoking Service on 01706 517 522

For general enquiries please contact the Patient Advice and Liaison Service (PALS) on 0161 604 5897

For enquiries regarding clinic appointments, clinical care and treatment please contact 0161 624 0420 and the Switchboard Operator will put you through to the correct department / service

The Northern Care Alliance NHS Group (NCA) is one of the largest NHS organisations in the country, employing 17,000 staff and providing a range of hospital and community healthcare services to around 1 million people across Salford, Oldham, Bury, Rochdale and surrounding areas. Our Care Organisations are responsible for providing our services, delivering safe, high quality and reliable care to the local communities they serve.

The NCA brings together Salford Royal NHS Foundation Trust and the hospitals and community services of The Royal Oldham Hospital, Fairfield General Hospital in Bury, and Rochdale Infirmary (currently part of The Pennine Acute Hospitals NHS Trust).

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