

# Carotid artery disease



**Information for patients**

Sheffield Vascular Institute



**PROUD TO MAKE A DIFFERENCE**

SHEFFIELD TEACHING HOSPITALS NHS FOUNDATION TRUST



This leaflet explains more about Carotid Artery Disease and answers some of the most frequently asked questions.

If after reading it you have any questions or concerns, then write them down and bring them to your next appointment.

## **Where will my hospital appointments take place?**

Your appointments will usually be at the Sheffield Vascular Institute at the **Northern General Hospital**. We also run local outpatient clinics at the Royal Hallamshire Hospital, Rotherham and Barnsley District General.

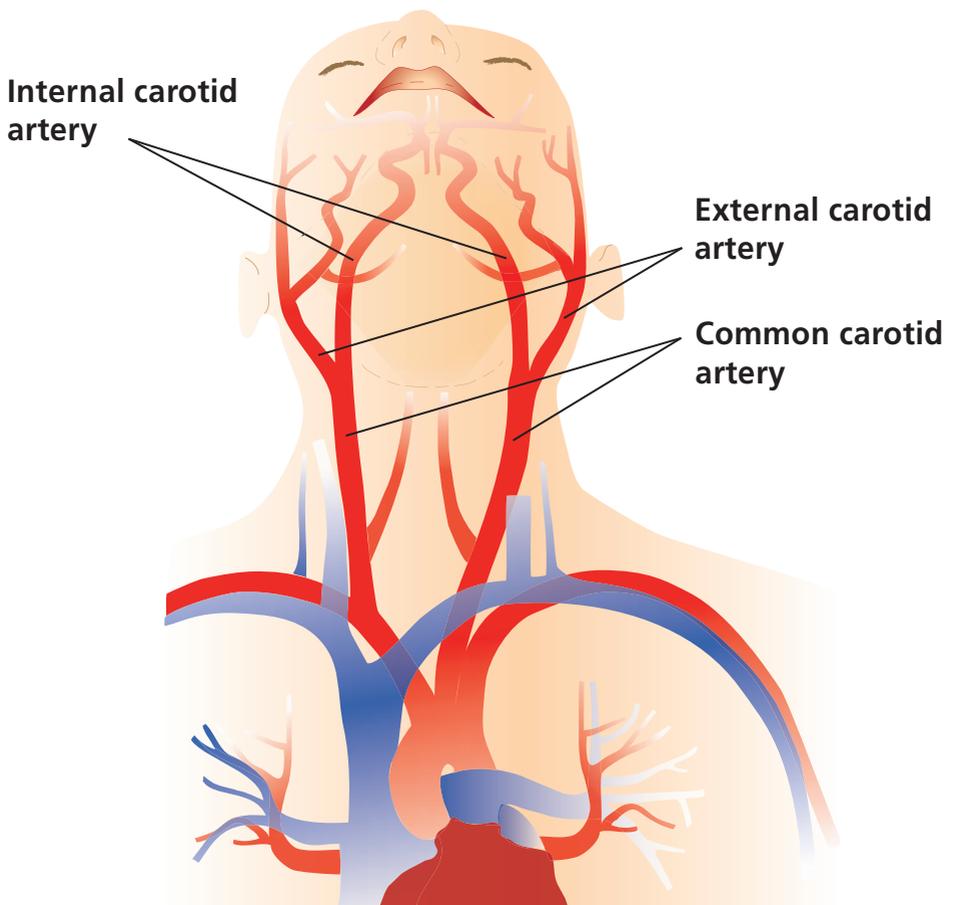
Sheffield Vascular Institute is a large vascular centre specialising in the treatment of all vascular conditions affecting the arteries, veins and lymphatics.

If you wish to find out more about the Sheffield Vascular Institute you can look under the Guide to Services section on the Sheffield Teaching Hospitals NHS Foundation Trust website: **[www.sth.nhs.uk](http://www.sth.nhs.uk)**

## What are the carotid arteries?

The carotid arteries are the two major vessels that supply most of the blood to your brain and head. They run up towards the head on either side of the neck, initially as the right and left common carotid arteries.

The common carotid artery on each side then divides into two branches: the internal carotid artery, which provides blood to the brain and the eye; and the external carotid artery which supplies the neck, face and scalp.



## **Why are they important?**

The blood supply to the brain is one of the most important parts of the circulation. The brain can be easily damaged by an interruption to its blood supply, and this may cause a stroke or a transient ischaemic attack (TIA).

A stroke causes a disability, which may remain permanent or may recover over a period of weeks/months. Symptoms usually occur suddenly and can include: numbness or weakness in the face, arm, or leg, especially on one side of the body; confusion or difficulty in talking or understanding speech. The range and severity of symptoms depends on which parts of the blood supply to the brain are interrupted, and for how long.

A TIA (a form of mini-stroke) causes exactly the same types of symptoms as a full stroke, but the symptoms usually disappear within an hour or so, although they can last up to 24 hours. Amaurosis Fugax is the name given to a TIA that affects the eye. It causes temporary loss or impairment of vision but permanent visual damage can also occur.

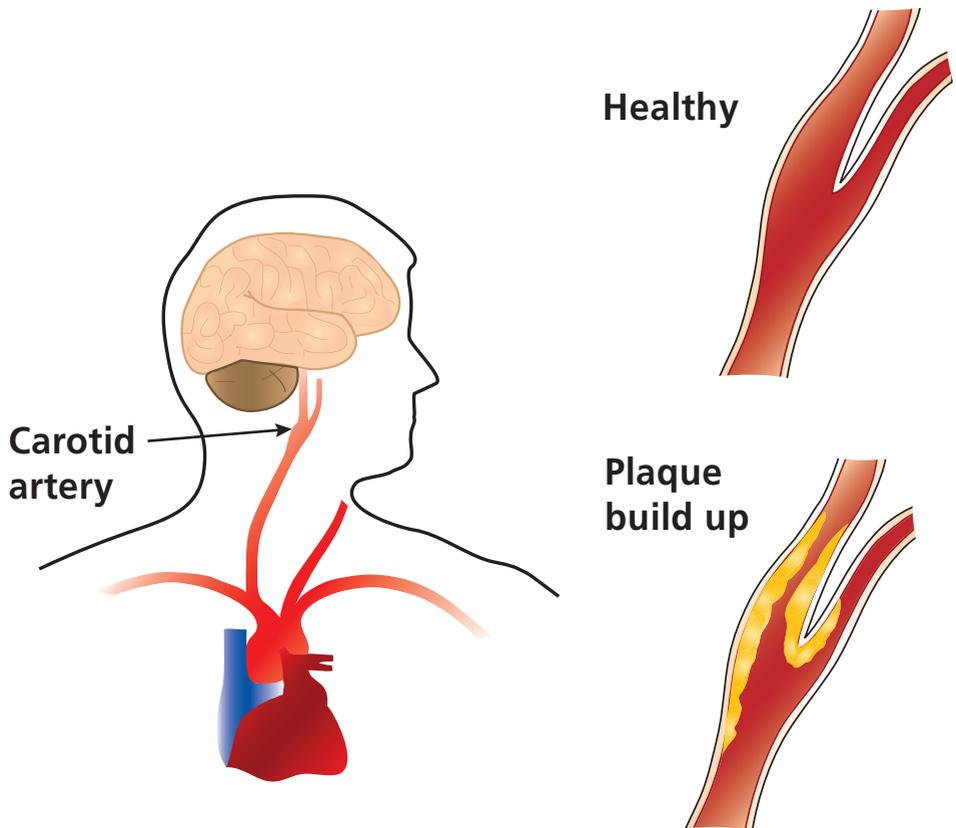
A person who has recently had a mild stroke, a TIA or Amaurosis Fugax has a higher risk of having a major stroke in the future. Very tightly narrowed carotid arteries may be associated with a slightly increased risk of stroke, even if they have not caused any prior symptoms.

## **What is carotid artery disease?**

The most common disease to affect the carotid arteries is atherosclerosis, commonly known as hardening of the arteries. In this condition local areas of plaque (made up of scar and fatty tissue) in the artery wall cause the carotid artery to narrow.

The blood supply to the brain or the eye is usually interrupted by bits of plaque breaking off and travelling in the blood stream to block smaller branches further on.

The more severe the narrowing caused by atherosclerosis, the higher the risk of a future major stroke.



## How will I know if I have carotid artery disease?

Carotid artery disease can be found incidentally by your doctor, or by tests which you will have if you have had a recent stroke or TIA. Listening to the carotid arteries in the neck with a stethoscope can sometimes indicate the presence of a narrowing. Other tests are needed to fully investigate carotid artery disease. These include:-

**Duplex Ultrasound** - this technique uses a probe, which generates ultrasound waves, pressed gently against the neck, rather like the scans of babies during pregnancy.

**MRA (Magnetic Resonance Angiography)** - this type of scan uses strong magnets, often combined with a special dye (contrast) to highlight the blood vessels.

**CT (Computed Tomography) Scan** - this is a computerised x-ray test which is often used to scan the brain for damage following a stroke or TIA, but which is occasionally used to image the carotid arteries as well.

**Angiography** - this is another x-ray test where a fine tube is placed into the artery in your groin, and is guided toward the carotid arteries. Through this tube contrast dye is injected to make the vessel visible. Local anaesthetic is given to numb the skin.

## **Do I need treatment?**

Many cases of carotid artery disease do not require treatment. Some build-up of plaque in the carotid arteries is a normal part of ageing. Simply trying to lead a healthier lifestyle may be all that is required, combined with drugs to make the blood less sticky (for example aspirin) and drugs to reduce cholesterol (statins) and blood pressure.

## **When would I need treatment?**

Treatment of a severe narrowing is performed if you have a high chance of having a stroke in the future, such as following a recent small stroke or TIA, or before heart bypass surgery.

If there is a severe narrowing, carotid artery treatment is still recommended even if there are no symptoms (asymptomatic). The benefit is relatively lower than it is for someone who has had a small stroke or TIA.

## **What does treatment involve?**

The narrowing can usually be treated by an open operation (carotid endarterectomy) or by a newer, technique (carotid artery stenting). There are separate leaflets available giving more information on each of these treatments.

## **How can I help myself?**

You can take a number of important measures to reduce your risk from carotid artery disease. These will also help delay/prevent atherosclerosis in other blood vessels in your body, such as those supplying your heart and other vital organs, and those to your legs:

- Stop smoking
- Take regular exercise
- Eat foods low in saturated fat and cholesterol
- Lose weight, if you are overweight
- Work with your doctor to lower high blood pressure and reduce the stress in your life
- If you have diabetes, see your doctor regularly and ensure good diabetic control
- Take aspirin or a similar drug called Clopidogrel, prescribed by your doctor
- Take a statin as prescribed by your doctor

## **Is there any activity that I should avoid doing?**

Your condition should not affect the activities you can do. In fact, we would stress that it is important that you continue with all your normal activities.

## Can I drive?

If you have had a TIA or stroke you will be advised not to drive. The length of time you cannot drive for depends upon your symptoms and recovery from symptoms, as well as the type of vehicle that you drive. Up to date guidance on this is available from the DVLA. You can also speak to your Specialist or GP who will be able to advise you.

## How can I tell if I need medical attention?

If at any time you suffer symptoms similar to that of a TIA or Amaurosis fugax, then you should immediately contact your General Practitioner or go to your nearest A&E department.

If you have any symptoms of a stroke which includes facial weakness, arm weakness or speech problems, call 999.

## Who should I contact if I have any questions or concerns?

- Firth 2: **0114 271 4602 / 271 4685**
- Vascular Secretary: **0114 226 9412 / 271 4793**
- Vascular Nurse Specialists: **0114 226 9311 / 271 4688**

## Where can I find further information?

- The Stroke Association: **[www.stroke.org.uk](http://www.stroke.org.uk)**
- NHS stop smoking:  
**<https://sheffield.yorkshiresmokefree.nhs.uk/>**
- Tel: **0800 068 4490**

Alternative formats can be available on request.  
Please email: **[sth.alternativeformats@nhs.net](mailto:sth.alternativeformats@nhs.net)**

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