

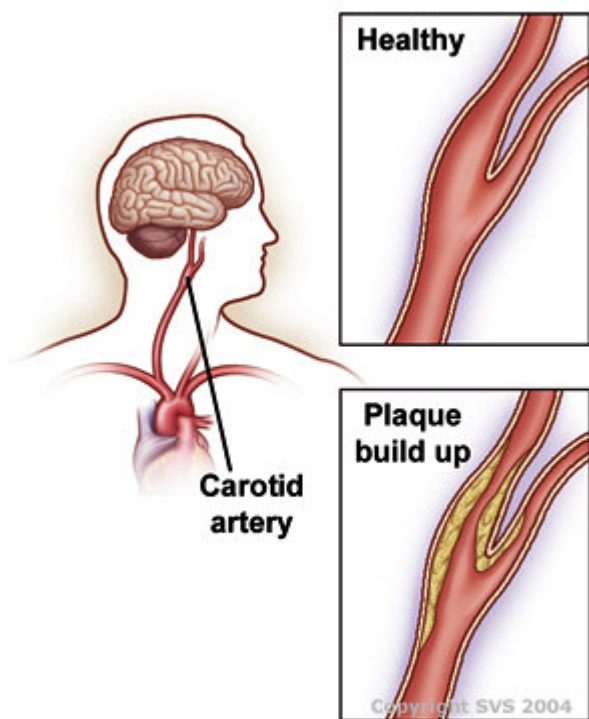
## Patient Information leaflet

### Carotid endarterectomy

#### Why do I need the operation?

If you have been having transient ischaemic attacks (TIA or mini stroke) then you are at a higher risk of having a permanent stroke. You may have been given advice to try to reduce the risk of this. This includes treatment of factors such as control of high blood pressure, diabetes, high cholesterol and help to stop smoking. You will have also been started on aspirin or an alternative which will make the blood less sticky.

In many cases, after investigations such as a duplex (ultrasound) scan, we find there is a significant narrowing of one of the arteries in your neck that supply the brain (the carotid artery). This is a result of atherosclerosis or “hardening of the arteries.”



Research shows that because of this narrowing you are at higher risk of having a stroke. Having an operation called carotid endarterectomy has been shown to correct this narrowing and therefore reduce the risk of stroke.

## What are the alternatives?

If surgery has been suggested to you this is because the narrowing of the carotid artery responsible for your TIA is already significant. Usually the operation will be performed if the narrowing is more than 70%. Your exact risk of stroke varies according to the symptoms and scan results. For people who have had a TIA and have a carotid artery which is more than 70% narrowed, over three years the risk of a stroke is as follows;

- If you have medical treatment alone it is approximately one person in six.
- After a carotid endarterectomy this risk reduces to approximately one person in thirty-five.
- There is a small risk of stroke during or following the operation of approximately one person in twenty. The risk varies depending on the degree of narrowing of your arteries and on whether you have the narrowing on both sides of the neck. The extent of risk to you will be discussed with you during your clinic consultation.

There is no way of knowing who will have a stroke and how severe it might be. For the very few who will suffer from a stroke as a result of the operation, the majority will suffer a mild stroke only. The decision to go ahead with surgery is yours alone and one you must discuss with your family and doctor.

## What happens before the operation?

The decision to have surgery will be made in out patient clinic and you will usually be given a date and sign a consent form there. You will be asked to attend pre admission clinic. During this appointment you will have blood tests, heart tracing (ECG) and other minor tests to prepare for surgery. You will also be able to discuss any anxieties you have.

The most important thing you can do to help yourself before this operation is stop smoking. This will benefit your heart and lungs and help avoid complications after the operation. More importantly, stopping smoking will reduce your risk of stroke. If you need help do ask to be referred to the smoking cessation nurse. Continue to take prescribed medications and eat a healthy diet.

## What happens during the operation?

You will be told when you must stop eating and drinking and which of your medication to take. You will be asked to shower and put a gown on. Men will need to shave the operation site on the neck.

You will be taken to the anaesthetic room first. If you are having a general anaesthetic you will be asleep before being taken to the theatre room. This operation can be done under a local anaesthetic. If this is your choice of anaesthesia, the anaesthetist will make an injection into the skin to numb it and you may be given some sedation.

The surgeon will make a cut down the side of your neck to reach the carotid artery. The artery is opened up and if you have a general anaesthetic a shunt – a plastic tube – is inserted temporarily to keep the blood flowing to the brain while the operation is performed. If you have the operation under a local anaesthetic the shunt may not be needed since you will be awake and the surgeons can constantly assess your neurological function. The thickened lining and atheroma which is making the artery narrow is removed. The artery is then closed, often with a patch to widen it slightly. A drain may be inserted and the neck incision is then closed.

### What happens after the operation?

Nursing staff will monitor your condition closely. We will carry out observations of your pulse, temperature and blood pressure. We will check your neck wound and general responsiveness, arm and leg strength and pupil reactions. This is to check you are making a safe recovery from the operation.

You can eat and drink as soon as you feel like it, but it is advisable to start slowly with sips of water. If you are diabetic your blood sugars will be monitored and you can resume your medications as soon as you are eating and drinking normally.

A local anaesthetic is used during the operation but you can have painkillers if required either by injection or by tablets.

You will be allowed out of bed the day after the operation and will be encouraged to mobilise gently. The nurses or physiotherapists will help you with this.

There may be swelling around your wound but this will usually go down after seven to ten days.

You should be well enough to go home within two to three days.

### What are the risks?

This operation does carry a risk of stroke affecting one person in twenty. Less commonly, a heart attack may occur. Your condition will be monitored closely so that necessary action can be taken quickly. In less than one percent of cases these complications are fatal.

You may develop a chest infection which may need treatment with antibiotics and physiotherapy. This is more likely if you smoke.

There will be bruising and swelling around the neck. Sometimes a collection of blood may form around the wound. This is called a haematoma. It may disperse itself or, rarely it may need evacuating in a small operation. There is a small risk of a wound infection which can be treated with antibiotics.

Skin nerves are interrupted during the incision and may lead to loss of sensation to a small section on the side of your neck. This may recover with time or it may be permanent. Men must be careful when shaving. Movement of nerves nearer to the carotid artery can cause a temporary, or rarely, a permanent loss of function. The vagus nerve provides a branch to the voice box so can lead to a hoarseness of voice after the operation. The hypoglossal nerve supplies the muscles of the tongue, affecting speech slightly, by reducing the tongue's mobility. The facial nerve supplies the muscles of the face, damage to it can affect movement of muscles around the neck and jaw.

### What happens when I go home?

You will feel tired for several weeks after the operation. Activity should be built up slowly and you should get plenty of rest. Avoid strenuous activity for about 6 weeks. You will be safe to drive when you can move your neck freely to allow a good view of the road and behind you. This will normally be about four to six weeks but if in doubt wait for your follow up appointment with your doctor. Avoid long distances and motorway driving at first.

If you work you should be able to resume your job in one to three months but if in doubt check with your doctor. As soon as your wound is dry you can bath or shower. You can resume a normal sex life after two to three weeks if you feel happy to do this. You will have a follow up appointment about six weeks after the operation.

### What can I do to help myself?

#### Smoking

The most important thing you can do to keep your arteries healthy is to stop smoking. The best way is to plan to stop completely rather than cut down. There is help available and nicotine replacement may help.

#### General health

Lose weight if you need to. Adhere to a healthy low fat diet and take moderate exercise.

## Medication

Take any medication that has been prescribed for you, particularly those for high blood pressure or high cholesterol. Have regular blood pressure and cholesterol checks with your GP or practice nurse. Your daily dose of aspirin is important.

This information is only a general guide. Everyone is an individual with different needs so the treatment may vary slightly from what is written.