

## Department of Vascular Surgery

### Carotid Endarterectomy

#### What is a Carotid Endarterectomy?

This is a surgical operation to remove or replace the diseased lining of the carotid artery.

#### Why do I need the operation?

Every day in Great Britain, many people have a stroke or a mini stroke (also known as a Transient Ischaemic Attack, or TIA). All patients who have an increased risk of stroke are given medical treatment including aspirin and a statin drug, if they can tolerate them. They are also given advice on how to reduce the risk of having another stroke in the future. This may include treatment of high blood pressure, diabetes, high cholesterol and heart disease as well as help with stopping smoking.

However, in some cases, surgical treatment is also recommended. This happens when a marked narrowing of one of the carotid arteries is demonstrated on an ultrasound scan. The carotid arteries are found on each side of your neck, and they carry blood to the brain. Narrowing is due to hardening of the arteries (atherosclerosis). If this is very severe (more than 50%), it can increase the risk of having another stroke or TIA. A carotid endarterectomy, to correct the narrowing, aims to reduce this risk.

#### Before the operation

This type of surgery involves staying in hospital for 2-3 days with the operation being carried out on the same day as your admission. Before the operation, you will be seen by the anaesthetist and by one of the surgical team who will explain anything that you are not sure about. You will have an opportunity to ask any questions and you will be asked to sign a consent form. The ward nurses will explain the ward routines and you will have a number of pre-operative tests including blood tests; an electrocardiogram (ECG) and you may require a chest x-ray and a re-scan of your neck.

**However, if you attended the Pre-Admission Assessment clinic prior to your admission, these tests will have been done already.**

**You shouldn't eat or drink for 6 hours before the operation.** The nursing staff will advise you precisely when to stop eating and drinking.

#### The operation

Carotid endarterectomy is normally performed under general anaesthetic, but in some selected cases it may be possible to perform the operation under local anaesthetic. Once you have been anaesthetised, an incision is made in the skin of the neck over the carotid artery. The artery is temporarily clamped off and the diseased lining removed. The artery is then closed with a patch over the top. This prevents the artery from narrowing once the plaque is removed. Dissolvable sutures are used to close the wound. You may have a small drainage tube left in your neck, which will usually be taken out the following morning.

## Are there any risks?

- Some minor bruising around the wound is common after the operation. Bruising of the neck may take several weeks to settle down.
- Sometimes a blood transfusion is necessary if there has been a lot of bleeding during the operation, though this is uncommon.
- Following the operation, you may have an area of numbness on the side of your neck and including the earlobe, which may take several months to settle down. Occasionally this numbness can be permanent.
- Nerve damage can lead to a hoarse voice or weakness of one side of the mouth or tongue. This is usually temporary but can be permanent.
- There is a small risk of developing a stroke during the operation, combined with a very small risk of death. Here at the Norfolk and Norwich University Hospital, this will affect around two out of every 100 patients undergoing this operation.

These risks will be explained and discussed with you in more detail before your operation, when the surgeon asks you to sign the consent form for your operation.

## After the operation

When you wake up, you will have an IV drip in your arm to provide you with fluids and to monitor your blood pressure. Most patients having this surgery will remain in the theatre recovery unit for 6 hours. At the end of this period, if your blood pressure remains stable you will be transferred to the vascular ward overnight. If you require any blood pressure support during the recovery period, you will be transferred to the High Dependency Unit (HDU) overnight. You might be discharged directly home from HDU or transferred to a ward.

The operation itself is not particularly painful although you may need to have some pain relief for the first couple of days.

After surgery you will be allowed to eat and drink as soon as you feel able. You will also be allowed to get out of bed. Patients are normally able to go home the following day or within three days of the operation.

## What about afterwards?

You are likely to feel tired for the first couple of days after your operation, but this should gradually improve as time goes by. Regular exercise such as a short walk combined with rest is recommended for the first few weeks following surgery, followed by a gradual return to your normal activity.

You will be able to drive when you can perform an emergency stop safely and look over your shoulder easily. This will normally be 3-4 weeks after surgery.

If you have had a Transient Ischaemic Attack (TIA) or mini stroke you must stop driving a car for at least 1 month and only re-start when your doctor tells you it is safe to do so.

If you drive a bus, coach or lorry, you must stop driving for at least one year after a TIA. You can only re-start when your doctor tells you it is safe.

**For further information please go to** <https://www.gov.uk/transient-ischaemic-attacks-and-driving>  
If in doubt check with your doctor, you should inform your insurers that you have had this operation.

You should be able to bathe or shower 3-4 days after your operation, provided the wound is dry.

You should be able to return to work within 3-4 weeks of surgery.

Lifting: There are no limitations in this area.

You may resume sexual relations when this feels comfortable.

If you require a sick certificate for your work, please ask a member of staff before you are discharged. You will receive an appointment to be seen in the outpatient clinic around 6-8 weeks after your operation.

This operation is usually very successful but you will also need to help yourself by improving your general health and taking regular exercise, stopping smoking and reducing the amount of fat in your diet. It is likely that you will need to continue taking aspirin each day following this type of surgery, but this will be discussed with you. All these things will help to reduce the risk of further problems from your arterial disease.

### **Points of contact:**

#### **Vascular Specialist Nurses**

Norfolk & Norwich University Hospitals NHS Foundation Trust  
**Tel: 01603 287844 or 01603 647971 (Monday to Friday 9am-5pm)**

### **Further information and support:**

#### Vascular Surgeons (Secretaries):

Miss F J Meyer	01603 287136
Mr M P Armon	01603 287552
Mr DR Morrow	01603 286442
Mr R E Brightwell	01603 287394
Mr M S Delbridge	01603 286434

Mr P C Bennett 01603 286263

Mr W Al-Jundi 01603 287552

Professor P W Stather 01603 647289

NHS 111 service out of hour's advice

### **Vascular Surgical Society of Great Britain and Ireland**

Tel: 020 7205 7150

Web address: [www.vascularsociety.org.uk](http://www.vascularsociety.org.uk)

### **Circulation Foundation**

Tel: 020 7205 7151

Web address: [www.circulationfoundation.org.uk](http://www.circulationfoundation.org.uk)

### **For help giving up smoking**

Contact your local NHS Stop Smoking Service Smoke free Norfolk on 0800 08 54113 or your GP surgery, pharmacy for local support.

The NHS National Stop Smoking Helpline and website are a source of advice, help and support visit [www.smokefree.nhs.uk](http://www.smokefree.nhs.uk).

