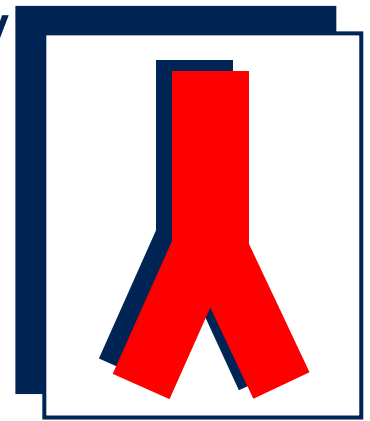


Will Butcher – Vascular Surgery

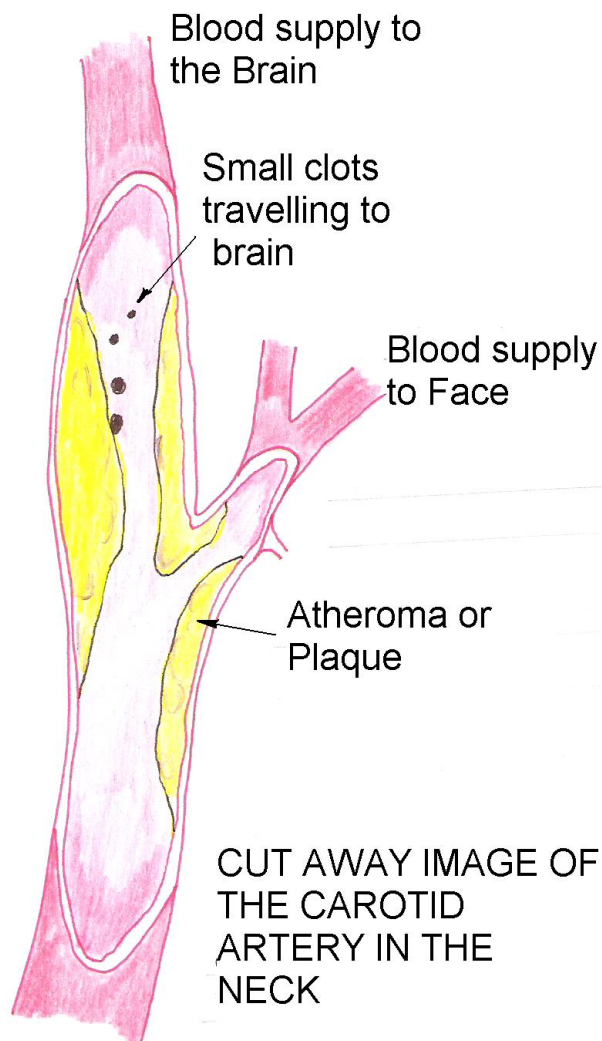
Patient information

Information to help you understand carotid endarterectomy



Why do I need this operation?

The carotid arteries are the main blood vessels on each side of your neck that carry blood to the brain and eyes. A narrowing (stenosis) in one or both of these arteries can lead to small clots forming. These clots may then be carried to your brain resulting in a mini-stroke ('TIA'), a temporary loss of vision or even a full blown stroke. In the majority of cases our patients will have already experienced one of these events already. If the tightness of the narrowing is severe enough then research tells us that the operation will give you a better chance of avoiding further strokes than if you relied on tablets alone.



Will I need any special tests?

You have had an ultrasound (Duplex) scan to measure the tightness of the carotid narrowing. In addition you will have some tests to see how fit and well you are to cope with surgery. Most patients will have some blood tests and an ECG (a tracing of your heart beat). You may also need a chest x-ray.

What happens when I first come into hospital?

If they are not already in hospital, most patients are admitted to the Day of Surgery Admitting unit on the day of their surgery. When you arrive, the team will check that everything is ready. One or two last blood tests may be done. We will ask you to sign a consent form or confirm your consent if you have already signed. If you have any last questions you should bring them up then. A few patients may be admitted to the ward on the day before surgery.

What should I bring with me?

You should bring all your current medication with you. It is sensible to bring a small bag of toiletries and a pair of comfortable pyjamas. Try and avoid bringing anything too valuable or precious with you as things can go missing in hospital.

What sort of anaesthetic will I have?

This operation is usually completed under a local anaesthetic, the side of your neck is numbed with a series of injections. Some light sedation may be used as well. The reason for this type of anaesthetic is so that we can monitor your brain function during the surgery. To improve its safety, you should not eat or drink for 6 hours before the operation. Most patients will be advised to take their medications as usual though. This will be discussed with you before the surgery but if you have any questions you should ask.

Pre-op scan

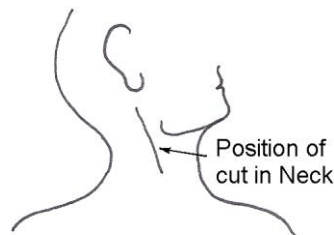
If your original duplex scan of the arteries in your neck was more than a few days ago, this scan is repeated

just before the operation to check on whether anything has changed in the artery. Occasionally the narrowing doesn't look as tight as we first thought or the artery has since blocked off. If this is the case, surgery may not be advisable and your surgeon might recommend that we cancel the operation.

What exactly does the operation involve?

At the appointed time some members of the operating department team will come to the ward to collect you. Sometimes a light sedative pre-medication will be given to you as well. After a short wait in the theatre complex, you will be moved to the anaesthetic room. Here you will see the anaesthetist.

After the anaesthetic is given a cut is made in your neck. The artery is exposed through this. Once this is done a blood thinner is



administered and the artery is clamped and a cut into the artery is made. The artery is then carefully cleaned out (endarterectomy). It is then repaired with a nylon suture that is as fine as a hair. In most cases a patch of man made fabric is be used to close the artery. The tissues over the artery are then stitched up. All the sutures will dissolve and do not need to be removed. A small plastic drain is left in the wound to allow any blood to escape. This may drip for a while after the surgery, while disconcerting this is pretty normal. This will be removed on the day after surgery. If the blood supply to your brain is thought to be a problem during the surgery a small tube or shunt is used to allow the blood to keep flowing while we complete the operation.

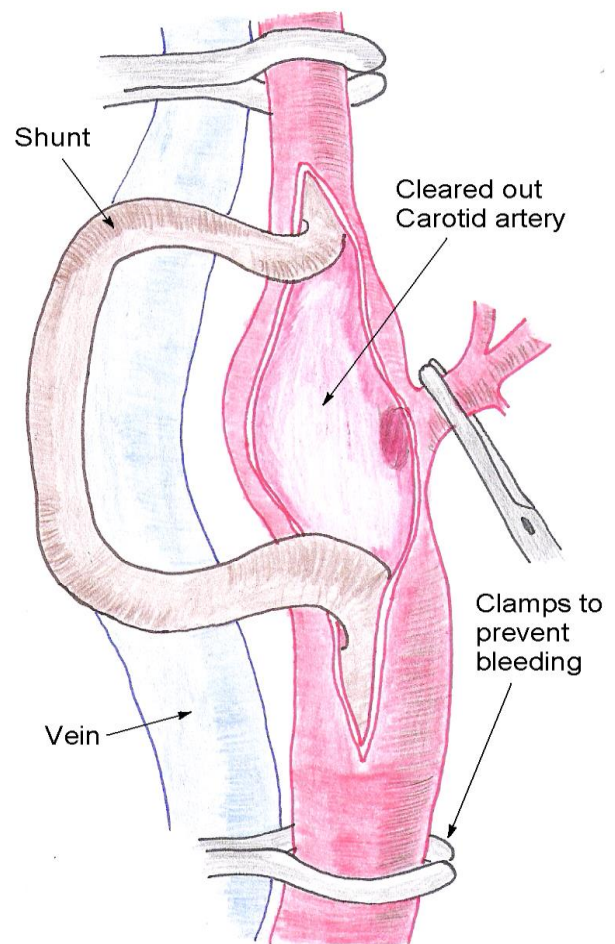
And the anaesthetic?

We do this operation under local anaesthetic. A drip will be inserted in your hand and then another in your wrist to monitor blood pressure. There will be a series of injections into your neck to numb the area of the operation. You may also have a light sedative to relax you during the surgery.

Local anaesthetic!!!

It is true this is quite a big operation to do under local anaesthetic but it does work very well. The anaesthetist and nurses will talk to you during the surgery and ask you some questions to check everything is working OK. Many patients nod off

during the surgery. Although it is helpful if you lie still during the surgery, I am perfectly able to manage some wriggling, talking and coughing.



The surgery takes about 1½ hours. You will be covered with sterile towels but will be able to see the surgeon. It can feel a bit like you are in a small tent looking out. The surgeon will also be asking you questions and talking to you. There may be a radio on as well.

Once the operation is complete you will be transferred to the recovery area. This can be a slightly frightening environment. Once your pain is under control and we are satisfied that everything is alright, you will be moved back to the ward.

Is it a big operation?

No this is not very big surgery. But you should remember that all operations should be considered very carefully. Also often the patients in whom we offer this type of surgery are often elderly and this will influence the recovery

What will happen in the ward?

You will be back in your own bed and will have intravenous fluid passing into a vein in your arm via a 'drip'. Sometimes your breathing may be helped by giving you extra oxygen through a mask. The nurses will usually get you up later in the day or the day after your operation. Most patients will be able to tolerate food on the day of surgery.

The drain will usually be removed later in the day or early the next morning. This is usually painless.

Pain: Pain following surgery is inevitable, but is usually mild after this operation. At the time of the surgery all patients will have had some local anaesthetic to minimise the pain. You will usually have small volumes of powerful pain killers injected directly into a vein. Once you are well enough, you will be able to take a variety of medications by mouth

How long will I be in Hospital?

Most patients are admitted on the day of surgery or the day before, and go home a day or two after surgery. We will have to be certain that you can manage at home before we let you go. If you have had a stroke, some further rehabilitation may be required before going home.

What happens when I go home?

Once you get home you should gradually return to all your normal activities. At first you may find that small tasks like dressing and showering may be a bit exhausting

Sutures: Most patients will have dissolving stitches that do not need to be removed.

Driving: There are no particular rules about driving after this sort of surgery. However, patient who have had a TIA or Stroke are not allowed to drive for 4 weeks after the event. Patients who have had a stroke that has not recovered completely should think very carefully about driving again and discuss this with their rehabilitation doctor and GP. After any surgery it is probably wise to go for a short safe drive with someone you trust before making the decision to start driving.

Washing: Once your wound is dry you may bathe or shower as normal. Usually this means that you can have a shower 3 or 4 days after the surgery.

What complications may occur?

Unfortunately all surgery can have complications and this is no exception.

What will happen?

There will be a scar as described. This usually heals up very well. The neck can be quite bruised after the surgery and this takes 4 to 6 weeks to settle down. There will be some bruises on your arms from the injections and drips.

Your sleeping patterns may have been disturbed by the ward routine and by medication. This will recover once you get home.

Complications that may occur are:

Chest infections can occur following this type of surgery, particularly in smokers, and may require treatment with antibiotics and physiotherapy.

The wounds can sometimes become infected, this can usually be successfully be treated with antibiotics.

Any medical condition which you may have can become unstable following this sort of surgery and so it is not unusual for your needs for medication to alter during this time.

It is also not usual for elderly patients to become confused or disorientated during a stay in hospital.

Complications which occur infrequently are:

Stroke: Because this operation interferes with the blood supply to the brain, there is a specific risk of having a stroke during the surgery. This risk is in the region of 1%. It is important to know that this risk is much lower than the overall risk of having a stroke if you do not have the operation.

As with any major operation such as this there is a very small risk of you having a major medical complication such as a heart attack. We do everything we can to prevent these complications and to deal with them rapidly if they occur.

A clot may form in the deep veins in your leg. This is called a DVT. We give you medication to prevent this happening but it still may occur.

Death

Although we do everything in our power to prevent it, this may still occur. In fact we recognise that a few patients will die during this surgery. You can be assured that this is in line with what occurs all over the world.

Once it's all over?

If you were previously a smoker you must make a sincere and determined effort to stop completely. Continued smoking will cause further damage to your arteries. General health measures such as reducing weight, a low fat diet and regular exercise are also important. We will ask you to take a low dose of aspirin every day to help to thin the blood. If you can not take aspirin, there are alternatives. You should also be taking a drug to reduce cholesterol. If not you should talk with your GP about this. I will normally arrange to see you in the rooms after 4 weeks.

More information

The first sensible step is to discuss your problem with your GP or surgeon, they will be best positioned to explain what to expect.

If you need more information you can go to one of these vascular organisation's websites:

The Australia and New Zealand Society for Vascular Surgery.

www.anzsvs.org.au/patientinformation/

The Vascular Surgical Society for Great Britain and Ireland.

www.vascularsociety.org.uk/patients/