

# Patient agreement to investigation or treatment

## Surgery of the carotid arteries – carotid endarterectomy

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**Brief description:**

- Carotid endarterectomy is an operation to treat a narrowed artery in the neck (the carotid artery), which supplies blood to the brain. The narrowing is caused by a build up of material within the artery wall. During the operation this is removed thus clearing out the artery.
- Clearing out the artery prevents strokes by preventing bits of the artery breaking off and lodging in the brain. Without surgery, patients with a severe stenosis of the carotid artery have at least a 26% chance (1 in 4) of having a stroke in the next two years.
- With surgery, the risks over the same time period are reduced to 9% (less than 1 in 10).
- Here, we explain some of the aims, benefits, risks and alternatives to this procedure (operation/treatment). We want you to be informed about your choices to help you to be fully involved in making any decisions.
- Please ask about anything you do not fully understand or wish to have explained in more detail.
- If you would like this information in another format or language or would like help completing the form, please ask a member of our staff.

**Please bring this form with you to hospital**

- You will be asked to read this form carefully, and you and your doctor (or other appropriate healthcare professional) will sign it to document your consent.
- All our consent forms are available on the Addenbrooke’s website: <http://www.addenbrookes.org.uk/consent>
- Guidance for health professionals can be found on the Addenbrooke’s intranet site <http://nww.addenbrookes.nhs.uk/consent>
- Remember, you can change your mind about having the procedure at any time, even after you have signed the form.

**For staff use:**

Does the patient have any special requirements? (For example, requires an interpreter or other additional communication method)

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.....

## About Surgery of the carotid arteries – carotid endarterectomy

Carotid endarterectomy is surgery to relieve a partial blockage of one of the main vessels carrying blood to the brain and the eye – the internal carotid artery. If the internal carotid artery is very narrow and this is discovered before it causes a large plaque to form, the artery can be opened up and the plaque removed. In certain people, but not all, this operation reduces the risk of a stroke.

### Before your procedure

- Most patients attend a pre-admission clinic, when you will meet a neurosurgical SHO and Clinical Nurse Practitioner.
- At this clinic, we shall ask you for details of your medical history and carry out any necessary clinical examinations and investigations. This is a good opportunity for you to ask us any questions about the procedure, but please feel free to discuss any concerns you might have at any time.
- You will be asked if you are taking any tablets or other types of medication - these might be ones prescribed by a doctor or bought over the counter in a pharmacy. It helps us if you bring details with you of anything you are taking (for example: bring the packaging with you).
- This procedure involves the use of general or local anaesthesia (rare). See below for further details about the types of anaesthesia/sedation we shall use.
- Most people who have this type of procedure will need to stay in hospital for about three days. Sometimes we can predict whether you will need to stay for longer than usual - your doctor will discuss this with you before you decide to have the procedure.
- You will need to continue taking **aspirin** as normal. If you are prescribed **clopidogrel** as well as aspirin, please discuss this with the consultant or nurse practitioner. They will decide whether you should continue taking this or stop one week prior to surgery.

### During the procedure (operation/treatment) itself

- Before your procedure, you will be given the necessary anaesthetic and/or sedation - see below for details of this
- If you are given a local anaesthetic, the nurse will ask you questions to check you are awake and ask you to perform certain tasks, for example 'squeeze my hand', 'stick out your tongue'.
- If you have a general anaesthetic, you will be kept asleep until you reach the recovery room after the procedure.

### After the procedure (operation/treatment)

- If you have had a general anaesthetic you will wake up in the recovery room after your operation. You might have an oxygen mask on your face to help you breathe. You might also wake up feeling sleepy.
- When you first wake up, there might be a small probe attached to the side of your head with an elasticated band. This probe monitors the blood supply to the brain, which ensures that the repaired artery remains clear.

- At this time, you might find there is a urinary catheter inserted into your bladder, which allows your urine to drain into a bag. This is a temporary measure to prevent urine becoming retained which can cause your blood pressure to become unstable.
- After this procedure, most people will have a small, plastic tube in one of the veins of their arm. This might be attached to a bag of fluid (called a drip), which feeds your body with fluid until you are well enough to eat and drink by yourself.
- While you are in the recovery room, a nurse will check your pulse and blood pressure regularly. When you are well enough to be moved, you will be taken to a ward.
- Sometimes, people feel sick after an operation, especially after a general anaesthetic, and might vomit. If you feel sick, please tell a nurse and you will be offered medicine to make you more comfortable.
- After a few hours, if all the measurements are fine and you have recovered sufficiently from the anaesthetic, you will be returned to the ward where you will continue to be monitored closely for 24 hours. Alternatively; we may continue to monitor you within the high dependency area overnight.
- **Eating and drinking:** The day after the operation, if all is well, you are allowed to start to eat and drink.
- **Getting around and about:** The day after the operation, if all is well, the monitors, catheters and drains are removed. We will try to get you mobile (up and about) as soon as we can to help prevent complications from lying in bed.
- **When you can leave hospital:** While you are staying with us, the surgical team will visit you every day and can answer any questions you might have about your surgery. On each visit, we will assess your progress and work out the best time for you to be discharged from hospital. Most people are discharged two to three days after the operation.

The actual time that you stay in hospital will depend on your general health, how quickly you recover from the procedure and your doctor's opinion.

- **When you can resume normal activities including work:** You will probably need two to four weeks off work or study; please return when you feel comfortable. You should avoid driving for at least two to four weeks ie, until you regain the full range of pain-free movement in your neck. Gentle exercise (for example, walking) is good but avoid any heavy lifting or straining for as long as possible. You may resume sex after two to four weeks.
- **Special measures you need to take after the procedure:**

You will be given more detailed information about any special measures you need to take after the procedure. You will also be given information about things to watch out for that might be early signs of problems (for example: infection).
- **Check-ups and results:** We will make arrangements to review you in the outpatient clinic three months after the operation. At this appointment, we may perform a (check) ultrasound scan of the operated artery. If all is well, you can be discharged back to the care of your GP.

## Intended benefits of the procedure

To remove the diseased area from the affected carotid arteries; this can prevent a stroke occurring in the future.

## Who will perform my procedure?

This procedure will be performed by the consultant or the specialist registrar under the direct supervision of the consultant.

## Alternative procedures that are available

- You may be treated medically rather than with surgery. However, we have no evidence that medical treatment alone can reduce the risk of stroke in people who have narrowed carotid arteries.
- Carotid stenting is a new treatment that is currently undergoing clinical trials. As yet, it has not been shown to be a safer or more effective treatment than this carotid endarterectomy surgery.

## Serious or frequently occurring risks

- There is a small risk of stroke at the time of operation (approximately 2 to 3%). To keep this risk as low as possible, we monitor your brain function throughout the surgery with a variety of techniques. We also thin the blood using heparin during surgery, and give you aspirin which reduces the 'stickiness' of the platelets in the blood.
- All major operations carry general risks including problems with the heart. On average there is a 1 to 2% risk of a heart attack following surgery. Often, this is related to problems with unstable blood pressure in the first 24 hours following surgery. For this reason, we monitor your blood pressure very carefully during this period, and give medications to prevent your blood pressure becoming too high or too low.
- Surgery on the arteries of the neck is very complex not only because the carotid arteries supply blood to the brain but also because there are a number of important nerves that lie near to the carotid arteries. Permanent damage to these nerves is relatively uncommon (in only 2 to 3% of patients). However; temporary nerve problems are more common. These usually recover completely. This temporary damage to the nerves can result from stretching them slightly to expose the disease in the arteries. This can affect the nerve to the voice box, which results in a hoarse voice. The nerve to the tongue can be affected resulting in a numb tongue that feels 'clumsy'. Occasionally, the nerve responsible for swallowing can be affected. Also, the nerve to the corner of the mouth can be affected causing temporary drooping of the side of the mouth.
- Surgery on the carotid arteries always produces bruising and soreness. Occasionally, blood can collect in the wound in the hours after surgery, which causes the neck to swell: in some patients (5% ) this haematoma (blood clot) needs to be removed under local anaesthetic. The wound to the neck is usually red and sore immediately after the operation; however, this should improve in the days after. If the wound becomes increasingly red and sore, this might indicate the presence of infection, which requires prompt treatment with antibiotics and assessment by your surgeon. This risk of wound infection is small (1 to 5% chance).

## Information and support

You might be given some additional patient information before or after the procedure, for example leaflets that explain what to do after the procedure and what problems to look out for.

If you have any questions or anxieties, please feel free to ask a member of staff including the Clinical Nurse Practitioner who can be contacted via the switchboard on bleep 152-165.

## Your anaesthesia

There are different types of anaesthesia. The type chosen by your anaesthetist depends on the surgery you are undergoing as well as your health and fitness. Sometimes the different types of anaesthesia are used in combination.

## General Anaesthesia

During general anaesthesia you are put into a state of unconsciousness and you will be unaware of anything during the time of your operation. Your anaesthetist achieves this by giving you a combination of drugs.

## Before your operation

Before your operation your anaesthetist will visit you in the ward, although occasionally this will happen in a pre-anaesthetic assessment clinic. If you are a day case patient it may not be until just before your operation. The anaesthetist who looks after you on the day of your operation is the one who is responsible for making the final decisions about your anaesthetic. He or she will need to understand about your general health, any medication that you are taking and any past health problems that you have had. Your anaesthetist will want to know whether or not you are a smoker, whether you have had any abnormal reactions to any of the drugs or if you have any allergies. They will also want to know about your teeth, whether you wear dentures, have caps or a plate. Your anaesthetist needs to know all these things so that he or she can assess how to look after you in this vital period. Your anaesthetist may examine your heart and lungs and may also prescribe medication that you will be given shortly before your operation, the pre-medication or 'pre-med'.

**Pre-medication** is the name given to medication (drugs) given to you some hours before your operation. These drugs may be given as tablets, injections or liquids (to children). They relax you and may send you to sleep. They are not always given. Do not worry if you do not have a pre-med, your anaesthetist has to take many factors into account in making this decision and will take account of your views on the topic if possible. Do not be worried about your anaesthetic. When your anaesthetist visits you before your operation, this is the time to ask all the questions that you may have, so that you can forget your fears and worries.

Before your operation you will usually be changed into a gown and wheeled to the operating suite into an anaesthetic room. This is an ante-room outside the theatre. The anaesthetist, his or her assistant and nurses are likely to be present. An intravenous line (drip) may be inserted. Monitoring devices may be attached to you, such as a blood pressure cuff or a pulse oximeter. A pulse oximeter is usually a little red light in a small box, which is taped to your finger. It shows how much oxygen you have in your blood and is one of the vital monitors that an anaesthetist uses during your operation to ensure that you remain in the best of health. You may be given some oxygen to breathe.

## During your operation

While you are unconscious and unaware your anaesthetist remains with you at all times. He or she monitors your condition and administers the right amount of anaesthetic drugs to maintain you in the correct level of unconsciousness for the period of the surgery. Your anaesthetist is constantly aware of your condition and trained to respond. Your anaesthetist will be monitoring such factors as heart rate, blood pressure, heart rhythm, body temperature and breathing. He or she will also constantly watch your need for fluid or blood replacement. If you have any other medical conditions, your anaesthetist will know of these from your pre-operative assessment and be able to treat them during surgery.

## After your operation

After your operation your anaesthetist continues to monitor your condition carefully. You will probably be transferred to a recovery ward where specially trained nurses, under the direction of anaesthetists, will look after you. Your anaesthetist and the recovery nurses will ensure that all the anaesthetic effects are reversed and that you are closely monitored as you return to full consciousness. You may be given some oxygen to breathe in the recovery area, and may find that intravenous drips have been inserted whilst you are unconscious in theatre and that these will be replacing fluids that you might require. You will be given medication for any pain that you might feel, and systems, such as Patient Controlled Anaesthesia (PCA) may be set up to continue pain control on the ward.

You are likely to feel drowsy and sleepy at this stage. Some patients feel sick, others may have a sore throat related to the insertion of the breathing tube during surgery. During this time it is important that you relax as much as you can, breathe deeply, do not be afraid to cough, and do not hesitate to ask the nursing staff for any pain relief, and about any queries you may have. You are likely to have hazy memories of this time and some patients experience vivid dreams. Once you are fully awake you will be returned to the ward, and if you are a day patient will be allowed to go to the waiting area to fully recover before you are accompanied home. Do not expect to feel completely normal immediately!

## What are the risks of general anaesthesia?

In modern anaesthesia, serious problems are uncommon. Risks cannot be removed completely, but modern equipment, training and drugs have made it a much safer procedure in recent years. The risk to you as an individual will depend on; whether you have any other illness, personal factors (such as smoking or being overweight) or surgery which is complicated, long or done in an emergency. Please discuss any pre-existing medical condition with your anaesthetist.

- Very common and common side effects (1 in 10 or 1 in 100 people)  
Feeling sick and vomiting after surgery, sore throat, dizziness, blurred vision, headache, itching, aches, pains and backache, pain during injection of drugs, bruising and soreness, confusion or memory loss.

- Uncommon side effects and complications (1 in 1000 people)  
Chest infection, bladder problems, muscle pains, slow breathing (depressed respiration), damage to teeth, lips or tongue, an existing medical condition getting worse, awareness (becoming conscious during your operation).
- Rare or very rare complications (1 in 10,000 or 1 in 100,000)  
Damage to the eyes, serious allergy to drugs, nerve damage, death, equipment failure.

## Local Anaesthesia

In local anaesthesia the local anaesthetic drug is injected into the skin and tissues at the site of the operation. The area of numbness will be restricted and some sensation of pressure may be present, but there should be no pain. Usually a local anaesthetic will be given by the doctor doing the operation (local anaesthesia is rarely an option)..



We are currently working towards a smoke free site. Smoking is only permitted in the designated smoking areas.

For advice and support in quitting, contact your GP or the free NHS stop smoking helpline on 0800 169 0 169

### Help with this leaflet:



If you would like this information in another language, large print or audio format, please ask the department to contact Patient Information: 01223 216032 or

[patient.information@addenbrookes.nhs.uk](mailto:patient.information@addenbrookes.nhs.uk)



## Document history

Authors	Neurosurgery Department
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Consent form 1

# Patient agreement to investigation or treatment

<p align="center"><b>For staff use only:</b></p> <p><b>Surname:</b></p> <p><b>First names:</b></p> <p><b>Date of birth:</b></p> <p><b>Hospital no:</b></p> <p><b>Male/Female:</b></p>
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Responsible health professional/job title

Special requirements .....  
 (For example, other language/other communication method)

**Name of proposed procedure or course of treatment**

Carotid endarterectomy **Side (left/right).....**

**Statement of health professional**

(To be filled in by a health professional with an **appropriate knowledge of the proposed procedure**, as specified in the Hospital's consent policy)

I have explained the procedure to the patient. In particular, I have explained:

- How it will be performed
- The intended benefits of the procedure: To remove the diseased area from the affected carotid arteries
- Any serious or frequently occurring risks including those specific to the patient: small risk of stroke at the time of operation, all major operations carry general risks including problems with the heart, temporary nerve problems, bruising and soreness

.....  
 • Any extra procedures that might become necessary during the procedure

- Blood transfusion
- Other procedure (please specify) .....

I have discussed what the treatment / procedure is likely to involve, the benefits and risks of any available alternative treatments (including no treatment) and any particular concerns of this patient.

- The following information leaflet has been provided: .....  
 ..... Version/Date/Ref: 2/May 2011/ CF364.....

This procedure will involve:

- General and/or regional anaesthesia       Local anaesthesia       Sedation

**Health professional's signature** ..... **Date:** .....

Name (PRINT): ..... Job title: .....

Contact details (if patient wishes to discuss details later) .....

- I have offered the patient information about the procedure but s/he has declined information.

**Important notes: (tick if applicable)**

- The patient has withdrawn consent (ask patient to sign/date here) .....
- See also advance directive/living will (eg Jehovah's Witness form)

**Statement of the interpreter (if appropriate)**

I have interpreted the information to the best of my ability, and in a way in which I believe s/he can understand:

Interpreter's signature ..... **Date:** .....

Name (PRINT): .....

Copy accepted by patient: yes / no (please circle)

<b>For staff use only:</b>
<b>Surname:</b>
<b>First names:</b>
<b>Date of birth:</b>
<b>Hospital no:</b>
<b>Male/Female:</b>
<b>(Use hospital identification label)</b>

**Statement of patient**

Please read this form carefully. If your treatment has been planned in advance, you should already have your own copy, which describes the benefits and risks of the proposed treatment. If not, you will be offered a copy now. Do ask if you have any further questions. The staff at Addenbrooke's are here to help you. **You have the right to change your mind at any time before the procedure is undertaken, including after you have signed this form.**

Training doctors and other health professionals is essential to the continuation of the Health Service and improving the quality of care. Your treatment may provide an important opportunity for such training, where necessary under the careful supervision of a senior doctor. You may, however, decline to be involved in the formal training of medical and other students without this adversely affecting your care and treatment.

**Please read the following:**

**I understand** that I will have the opportunity to discuss the details of anaesthesia with an anaesthetist before the procedure, unless the urgency of my situation prevents this. (This only applies to patients having general or regional anaesthesia.)

**I understand** that you cannot give me a guarantee that a particular person will perform the procedure. The person undertaking the procedure will, however, have appropriate experience.

**I understand** that any procedure in addition to those described on this form will only be carried out if it is necessary to save my life or to prevent serious harm to my health.

**I have been told** about additional procedures which may become necessary during my treatment. I have listed below any procedures that **I do not wish, without further discussion, to be carried out.**

**I understand** that any tissue (including blood) removed as part of the procedure or treatment will be anonymised and may be used for teaching or quality control, and stored or disposed of in a manner regulated by appropriate, ethical, legal and professional standards.

**I understand** that all research will be approved by a research ethics committee and undertaken in accordance with appropriate ethical, legal and professional standards.

**I understand** that the research may be conducted within a hospital, university, not for profit organisation or a company laboratory.

**Please tick boxes to indicate you either agree/disagree to the three points below.**      **Yes**      **No**

**I agree** that tissue (including blood) not needed for my own diagnosis or treatment can be used for **research which may include genetic research.** If you wish to withdraw your consent for the use of your tissue (including blood) for research, please contact the Patient Advice and Liaison Service at Addenbrooke's Hospital.           

**I agree** to the use of photography for the purpose of diagnosis and treatment.           

**I agree** to anonymised photographs being used for medical teaching.           

**I confirm** that the risks, benefits and alternatives of this procedure have been discussed with me and I have read and understood the above and agree to the procedure (or course of treatment) on this form.

**Patient's signature:** ..... **Date:** .....

**Name (PRINT):** .....

If the patient is unable to sign but has indicated his/her consent, a witness should sign below. Young people may also like a parent to sign here (see guidance notes).

**Witness' signature:** ..... **Date:** .....

**Name (PRINT):** .....

**Confirmation of consent** (to be completed by a health professional when the patient is admitted for the procedure, if the patient has signed the form in advance)

On behalf of the team treating the patient, I have confirmed with the patient that s/he has no further questions and wishes the procedure to go ahead.

**Signature**      **Date:** .....

**Name (PRINT):** ..... **Job Title:** .....

