

Patient agreement to investigation or treatment

Creation of arteriovenous fistula

Authors: Department of Surgery

Brief description:

- An arteriovenous fistula is created to provide vascular access for haemodialysis for patients with end-stage renal failure (less commonly for plasmapheresis or chemotherapy).
- Here, we explain some of the aims, benefits, risks and alternatives to this operation. 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.cuh.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 creation of arteriovenous fistula

An arteriovenous fistula is surgically created by joining an artery to a vein. It is most commonly sited on the arms but sometimes on the legs if there are no suitable vessels in the arms. Very rarely, synthetic graft may be used to create the fistula. Once an arteriovenous fistula is created, the arterial pressure will cause dilatation of the vein. The vein will become bigger and stronger over the next few weeks and will allow cannulation for haemodialysis.

Before your procedure

- You will be admitted to the Day Surgery Unit or an inpatient ward before your procedure, when you will meet the surgeon.
- 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 your repeat prescription or the packaging with you).
- It is important for you to tell us if you are on any anticoagulants (medications to prevent blood clots), for example aspirin, clopidogrel, dipyridamole, heparin or warfarin. You will be started on aspirin if you are not on any anticoagulant, unless it is contraindicated.
- If you are on warfarin, you need to stop it three to five days before your operation and may need an alternative anticoagulant during this period. This should have been discussed with you in clinic.
- Your surgeon may carry out an ultrasound examination too assess your arteries and veins before the procedure, while you are on the ward or operating theatre.
- The majority of people who have this type of procedure will have local anaesthesia. Occasionally sedation, regional or general anaesthesia may be used. See below for details about the types of anaesthesia/sedation we use.
- This procedure is mostly done as a day case. If you are having a general anaesthesia, you may be admitted the day before the procedure and may need to stay for longer after the procedure - your doctor will discuss this with you before you decide to have the procedure.

Hair removal before an operation

- Sometimes the healthcare team may need to remove hair to allow them to see or reach your skin. If the healthcare team consider it is important to remove the hair, they will do this by using an electric hair clipper, with a single-use disposable head, on the day of the surgery.
- Please do not shave the hair yourself, or use a razor for hair removal, as this can increase the risk of infection to the site of the operation.
- If you have any questions, please ask the healthcare team who will be happy to discuss this with you.

References:

NICE clinical guideline No 74: Surgical site infection (October 2008); Department of Health: High Impact Intervention No 4: Care bundle to preventing surgical site infection (August 2007).

During the operation itself

- Before your procedure, you will be given the necessary anaesthetic and/or sedation - see below for details of this and the role of the anaesthetist in your care.
- At the start of your operation, you will be given injections of local anaesthetic drugs around the vein and artery that we have identified before the operation. Once your skin is numbed, we will then make an incision to explore the vein and bring it towards the artery. These will be joined together using surgical sutures (stitches). Your skin will be closed by dissolvable sutures. No sutures will need to be removed once the wound has healed. If you are having a general anaesthesia, the procedure will be the same but you may or may not be given the injections of local anaesthetic drugs.

After the operation

- **Eating and drinking:** After this procedure, you can eat and drink as usual if you had a local anaesthesia, or when you are recovered from the general anaesthesia or sedation.
- **Getting around and about:** After this procedure, we will try to get you mobile (up and about) as soon as we can to help prevent complications from lying in bed. Typically, you will be able to get up after an hour once you have recovered from the anaesthesia or sedation.
- **When you can leave hospital:** Most people who have had this type of procedure under local anaesthesia will be able to leave hospital after half an hour. If you have had sedation or general anaesthesia, you may need to stay for a few hours or overnight until you are fully recovered from the effect of anaesthetics. 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:** Most people who have had this procedure can resume normal activities the next day. You might need to wait a little longer before resuming more vigorous activity. When you will be ready to return to work will depend on your usual health, how fast you recover and what type of work you do. Please ask your doctor for his/her opinion.
- **Driving:** You are advised not to drive on the day of and up to two weeks after the operation. Please inform us if you are not able to arrange your own transport so that we can arrange hospital transport for you.
- **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 (such as infection).
- **Check-ups and results:** If you have already started on haemodialysis, your fistula will be checked by the specialist nurses in your dialysis unit. If you have not started on haemodialysis, you will be followed up by your nephrologist in the low clearance clinic or in the vascular access clinic two to three weeks after the procedure. The outpatient appointment will be sent to you in the post.

If you have had a general anaesthesia or sedation,

- 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. You may have a small plastic tube placed in one of your veins temporarily, which will be connected to a bag of fluid to give you hydration you require.
- 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.

Intended benefits of the procedure

- The intended benefit of the procedure is to create access for haemodialysis.

Who will perform my procedure?

- This procedure will be performed by one of the consultants, specialist registrars or clinical fellows in transplant surgery. All of them are fully trained in performing vascular access surgery.

Alternative procedures that are available

- An alternative to having an arteriovenous fistula is to have a temporary or permanent dialysis line as haemodialysis access. A dialysis line is a plastic tube, which is inserted into one of the major veins in your neck or groin. The major risks associated with a dialysis line are blockage of the line, line fractures and infection, which can be potentially severe and life threatening. You might wish to wait until you are more decided or have sufficient information to make an informed decision.

Serious or frequently occurring risks

Risk associated with this type of procedure

- Very common or common risk (1 in 10 people or 1 in 100 people)
Failure to mature, thrombosis in fistula, mild to moderate steal syndrome (affected blood supply to hand causing cold sensation, cramps, pain or reduced strength), aneurysm of fistula (bulging of wall of the vein) and numbness of skin around the fistula.
- Uncommon or rare risk (1 in 1000 people or 1 in 10,000 people),
Severe steal syndrome (affected blood supply to hand causing tissue loss), deep infection or bleeding from fistula requiring re-operation or ligation of fistula and major nerve damage (causing impaired function of the hand).
- Risks associated with all major operations: bleeding, infection, deep vein thrombosis (blood clots in legs).

Risks associated with anaesthesia/sedation: please see below.

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:

- **Clinical Nurse Specialist:** Please call 01223 349290 (direct line) or 01223 245151 (hospital switchboard) and bleep 154-590, on Monday to Friday 08:00 - 17:00.
- **Addenbrooke's Dialysis Unit:** Please call 01223 217832, on Monday to Saturday 07:00 – midnight.
- **Satellite Dialysis Units:** on Monday to Saturday 07:00 - 20:00.
Hinchingsbrooke HD Unit: 01480 421850.
West Suffolk HD Unit: 01553 613544.
Kings Lynn HD Unit: 01480 421850.
- If you need emergency advice at all other times, please contact the Transplant Surgeon on-call via Addenbrooke's hospital switchboard on 01223 245151.

Your anaesthesia

There are three types of anaesthesia. The type chosen by your surgeon or 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. It is common practice nowadays to allow a parent into the anaesthetic room with children: as the child goes unconscious, the parent will usually be asked to leave.

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 Analgesia (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.

Day case anaesthesia

Many operations these days are carried out as day cases. This means you will come into hospital on the day of the operation, often only a short time before it is due to start. Sometimes you will be seen preoperatively for assessment, which is important because some people are not fit enough for day care. You will usually be seen by your anaesthetist on the admission day, in the day care ward.

Take all your normal drugs on the day of operation (unless they are diabetic drugs - do not take them): it is OK to take a sip of water to wash tablets down. The hospital will tell you when to stop eating and drinking before the operation: be sure to follow those instructions, or your operation may be cancelled

It is not usual to have a premed for day care operations, as these can slow recovery. Most day case operations are more minor, and usually do not require major pain killers afterwards. However, you may need tablets, and it is important that you have some sort of pain killers at home. If you have not, the hospital should give you a supply to take with you.

Sometimes patients do have quite a bit of pain after day case operations, and may feel sick. Do not expect to feel normal straight away, and do not plan anything important for the evening after your day case operation. Occasionally the pain or sickness is severe enough for you to be kept in hospital, though that is unusual.

Regional Anaesthesia

For regional anaesthesia a local anaesthetic drug is injected around a bundle of nerves so that a part of the body, such as an arm or a leg, is made numb. In addition, the muscles in the limb are paralysed whilst the drug is acting so that the limb becomes floppy. Obviously you will still be awake and know that the operation is taking place, but often the anaesthetist will administer a sedative drug so that you drift off to sleep during the operation. Even if this is not the case, you will not be able to see the operation because a screen will be placed in the way.

Examples of regional anaesthesia are the use of an epidural for pain relief during childbirth, a spinal for an operation on the bladder, and an eye block for cataract surgery. Sometimes regional and general anaesthesia are combined, particularly for major surgery, to provide pain relief after the operation.

Just as for General Anaesthesia, your anaesthetist remains with you throughout the operation under regional anaesthesia, monitoring and controlling your anaesthetic state throughout in the same way. Similarly, you will go to the recovery ward afterwards until you are stable and safe to go back to the ward.

What are the risks of regional 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.

- Very common and common side effects (1 in 10 or 1 in 100 people)
Feeling sick and vomiting after surgery, dizziness, blurred vision, headache, itching, aches, pains and backache, pain during injection of drugs, bruising and soreness.
- Uncommon side effects and complications (1 in 1000 people)
Bladder problems, slow breathing (depressed respiration), an existing medical condition getting worse.

- Rare or very rare complications (1 in 10,000 or 1 in 100,000)
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. Local anaesthesia is used for minor operations such as stitching a cut. Usually a local anaesthetic will be given by the doctor doing the operation.

Sedation

Sedation is the use of small amounts of anaesthetic or similar drugs to produce a 'sleepy-like' state. It makes you physically and mentally relaxed during an investigation or procedure which may be unpleasant or painful (such as an endoscopy) but where your co-operation is needed.

You may remember a little about what happened but often you will remember nothing. This is known as 'conscious sedation', and may be used by other professionals as well as anaesthetists.

If you are having a regional or local anaesthetic, you may want to ask for some sedation as well.



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



Document history

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Consent form 1

Patient agreement to investigation or treatment

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

Responsible health professional/job title

.....

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

Name of proposed procedure or course of treatment

Creation of Arteriovenous Fistula Side (left/right).....

Type of AVF specified:

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:

- The intended benefits of the procedure: to create access for haemodialysis
 - Any serious or frequently occurring risks from the procedures including those specific to the patient: Failure to mature, thrombosis in fistula, mild to moderate steal syndrome, aneurysm of fistula, minor nerve damage, severe steal syndrome, major nerve damage, bleeding, infection and deep vein thrombosis
 - 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: 1/December 2011/CF435

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.

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):

Important notes: (tick if applicable)

- The patient has withdrawn consent (ask patient to sign/date here)
- See also advance directive/living will

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

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

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: