Patient information and consent to elective coil occlusion of brain aneurysm

Key messages for patients

- Please read your admission letter carefully. It is important to follow the instructions we give you about not eating or drinking or we may have to postpone or cancel your operation.

- **Please read this information carefully**, you and your health professional will sign it to document your consent.

- It is important that you bring the consent form with you when you are admitted for surgery. You will have an opportunity to ask any questions from the surgeon or anaesthetist when you are admitted. You may sign the consent form either before you come or when you are admitted.

- Please bring with you all of your medications and its packaging (including inhalers, injections, creams, eye drops, patches, insulin and herbal remedies), a current repeat prescription from your GP, any cards about your treatment and any information that you have been given relevant to your care in hospital, such as x rays or test results.

- Simple painkillers such as paracetamol and ibuprofen may be required after surgery. Simple bowel medication such as senna and lactulose may be required after surgery. It is suggested that you discuss with your pharmacist and have a seven day supply of these medications at home to take as you need according to the instructions.

- Take your medications as normal on the day of the procedure unless you have been specifically told not to take a drug or drugs before or on the day by a member of your medical team. If you have diabetes please ask for specific individual advice to be given on your medication at your pre-operative assessment appointment.

- Please call the specialist nurse on telephone number 01223 216189 if you have any questions or concerns about this procedure or your appointment.

After the procedure we will file the consent form in your medical notes and you may take this information leaflet home with you.

**Important things you need to know**

Patient choice is an important part of your care. You have the right to change your mind at any time, even after you have given consent and the procedure has started (as long as it is safe and practical to do so). If you are having an anaesthetic you will have the opportunity to discuss this with the anaesthetist, unless the urgency of your treatment prevents this.

We will also only carry out the procedure on your consent form unless, in the opinion of the health professional responsible for your care, a further procedure is needed in order to save your life or prevent serious harm to your health.
However, there may be procedures you do not wish us to carry out and these can be recorded on the consent form. We are unable to guarantee that a particular person will perform the procedure. However the person undertaking the procedure will have the relevant experience.

All information we hold about you is stored according to the Data Protection Act 1998.

What is a brain aneurysm?
A brain aneurysm is a fault or weakness in the wall of one of the blood vessels supplying blood to the brain. This causes a “blister” or balloon like swelling on the blood vessel.

There is a small risk that the aneurysm will burst and cause a brain haemorrhage (subarachnoid haemorrhage). This is the reason treatment is offered.

What is coil occlusion of aneurysm?
This is an endovascular treatment which means it is performed through a blood vessel by a consultant interventional neuroradiologist. It is carried out whilst you are asleep under general anaesthetic.

A catheter (tube) is inserted into an artery in your groin in the same way as an angiogram. The catheter is fed up to the aneurysm using x-ray screening for guidance. The coils are then carefully placed inside the aneurysm.

The size, shape, and position of the aneurysm will determine which type and how many coils are used.

The aim is to pack the aneurysm with coils so that blood is not able to enter it and allow the aneurysm to seal over.
What is ‘stent assisted’ coil occlusion?

Occasionally, a stent (artificial tube) is used as well as coils to help seal off the aneurysm. These are used depending on the type, shape and position of the aneurysm.

Occasionally, some people may have a stent without the coiling procedure. This will be discussed with you.

You should have clear instructions on the medication such as aspirin and any other antiplatelet (blood thinning) tablets you may need to take after the procedure, before you go home. If you are unsure please ask your medical team. You should not stop this medication unless you are advised to do so by your medical team. Stopping this medication could result in the blockage of this stent, which can cause a stroke.

Who will perform my procedure?

This procedure will be performed by a consultant interventional neuroradiologist.

Before your procedure

You will be brought to preadmission assessment clinic to be assessed which allows you to ask questions regarding the procedure. You are assessed to ensure your safety whilst you are being treated. You will be kept nil by mouth for six hours before the procedure.

We will ask if you take any tablets or use any other types of medication either prescribed by a doctor or bought over the counter in a pharmacy. Please bring all your medications and any packaging (if available) with you. Please tell the ward staff about all of the medicines you use. If you wish to take your medication yourself (self-medicate), please ask your nurse. Pharmacists visit the wards regularly and can help with any medicine queries.

During this appointment, you should have clear instructions on the medication such as aspirin and any other antiplatelet (blood thinning) tablets you may need to take before and after the procedure.

If another patient comes in as an emergency, your procedure may need to be postponed as emergencies will always take priority. We will make every effort to prevent this.

This procedure involves the use of anaesthesia. We explain about the different types of anaesthesia or sedation we may use at the end of this leaflet. You will see an anaesthetist before your procedure.
Most people who have this type of procedure will need to stay in hospital for two to three days. Your doctor will discuss the length of stay with you.

**Hair removal before an operation**

For most operations, you do not need to have the hair around the site of the operation removed. However, sometimes the healthcare team need to see or reach your skin. For this procedure, a partial groin shave is necessary. This will be done on the day of the surgery. Please do not shave the hair yourself or use a razor to remove hair, as this can increase the risk of infection. Your healthcare team will be happy to discuss this with you.

**During the procedure**

During surgery, you may lose blood. If you lose a considerable amount of blood your doctor may want to replace the loss with a blood transfusion as significant blood loss can cause you harm. The blood transfusion can involve giving you other blood components such as plasma and platelets which are necessary for blood clotting. Your doctor will only give you a transfusion of blood or blood components during surgery, or recommend for you to have a transfusion after surgery, if you need it.

Compared to other everyday risks the likelihood of getting a serious side effect from a transfusion of blood or blood component is very low. Your doctor can explain to you the benefits and risks from a blood transfusion.

Your doctor can also give you information about whether there are suitable alternatives to blood transfusion for your treatment. There is a patient information leaflet for blood transfusion available for you to read.

Coiling is a complex and delicate procedure that may take a few hours or longer. The neuroradiologist inserts a catheter (tube) into your femoral artery. This is then guided by x-ray screening through other blood vessels in your body until it reaches your neck and then into your brain.

The coils are then carefully inserted into the aneurysm. Coils are made of platinum, and are about the thickness of human hair. The length of them varies. The number of coils needed depends on the size of the aneurysm.

**After the procedure**

Once your surgery is completed you will usually be transferred to the recovery ward where you will be looked after by specially trained nurses, under the direction of your anaesthetist. The nurses will monitor you closely until the effects of any general anaesthetic have adequately worn off and you are conscious. They will monitor your heart rate, blood pressure and oxygen levels too. You may be given oxygen via a facemask, fluids via your drip and appropriate pain relief until you are comfortable enough to return to your ward.

Once back on the ward, you will need to lie down on bed rest for four hours. This helps to minimise the pressure on the artery that has been used as the access.
Sometimes it is necessary for you to go to the critical care unit where there are more facilities to treat and monitor you if that is what your interventional neuroradiologist orders. This will be discussed with you in preadmission assessment clinic.

If your neuroradiologist or anaesthetist believes you should go to one of these areas after your operation, they will tell you and explain to you what you should expect.

If there is not a bed in the necessary unit on the day of your operation, your operation may be postponed as it is important that you have the correct level of care after a major procedure.

You will have regular observation of your conscious level, blood pressure and pulse as well as the puncture site. You will have a drip to make sure you don’t get dehydrated. Once the drip is out we will expect you to drink plenty of fluids the next day to wash out the contrast (dye) used in the procedure. You will have stockings and compression devices on your legs. You will normally have blood thinning injections after the procedure until you go home. This is to prevent venous clots (DVTs) in your legs whilst you aren’t moving around as much and these injections are discontinued when you get home.

**Eating and drinking.** After this procedure, you should not have anything to eat or drink until advised.

**Getting about immediately after the procedure.** You will be allowed to gradually sit up after four hours and gently mobilise with supervision if the nurse looking after you feels it is safe to do so.

The puncture site in your groin is sometimes painful afterwards. There may be some bruising or swelling. Occasionally this can be excessive. If you notice this then you must let your medical team know. The site should not bleed afterwards. It is advisable to hold this area whilst coughing or straining afterwards if possible.

**Leaving hospital.** Once your medical team are happy that you no longer need treatment you will be allowed to go home. This is often two or three days after the procedure, if there are no complications.

You will normally go home on a course of aspirin. Sometimes other blood thinning tablets are added such as clopidogrel, or a similar drug. You should have instructions on the dose and length of time you should take this before you go home.

Aspirin can sometimes worsen indigestion or heart burn, and may make breathing worse in those with asthma. Occasionally, it can cause bleeding or skin reactions. Clopidogrel can rarely cause stomach upset and bruising or bleeding. If these side effects occur seek medical advice as well as contacting us for advice.
Resuming normal activities including work.

Returning to work

You can return to work as soon as you feel able although most people need about two weeks off to recover. (Occasionally more if there have been complications.)

Driving

You do not normally have to inform the DVLA following this procedure unless there are complications with vision or stroke. You should always check with your medical team before you go home. However, you should not drive until you feel recovered and go out on a quiet road on a quiet day to see how you cope.

Flying

You should be able to fly as soon as you feel able. It is safe to go through the metal detectors in the airport. They will not affect the coils. You should always inform your insurance company before flying.

Smoking cigarettes

As cigarettes are one of the biggest risk factors in rupture of aneurysms it is advisable that you give up smoking completely. A free help line number is printed at the end of this booklet.

Drinking alcohol

Alcohol in moderation is acceptable. The government suggests that woman do not drink more than two to three units each day and men three to four units a day. Information websites on alcohol awareness are printed at the back of this booklet.

Sexual activity

You can resume normal sexual activity as soon as you feel able.

Starting a family

For ladies it is advisable not to start a family for the first six months. You will not normally be prevented from a normal delivery but this will depend on your obstetrician. Contact your neurovascular nurse or medical team if you wish to start a family. You will not normally have MRI scans whilst you are pregnant.

Sport and swimming

Exercise is encouraged. Most sports can be resumed gradually once you have recovered, although it is best to avoid extreme and contact sport until you have had your six month follow up scan.

Hair washing and hair dyeing

You can wash your hair as soon as you feel up to it. The coils will not be affected by dyeing or perming it.
Dental treatment
Dental treatment is safe after coiling of aneurysm but your dentist may not be happy to treat you whilst you are taking aspirin or clopidogrel. If treatment isn’t urgent you should wait until the course finishes. Please contact us for further advice if you need treatment whilst taking aspirin or clopidogrel.

Special measures after the procedure:
Whilst there are no scars from this procedure please be aware that you may need time to recover as it is a complicated intricate procedure. You may feel a little ‘under the weather’ or tired for a few weeks following the procedure.

Headaches
Headaches sometimes occur following the procedure. They usually ease after a few weeks. Simple medication such as paracetamol should help.

Headaches can be triggered by dehydration, stress, too much or too little sleep and missing meals.

Drinking two litres of water a day should help reduce the frequency and severity.

Pacing
Recovery is helped by pacing your activity for the first week or so following going home. Tiredness is common for the first few weeks so take a daily rest if you need to. Gentle exercise is beneficial to build up stamina and wellbeing so increase activity as you improve.

Unusual sensations
Some people experience unusual sensations in their head following coiling of aneurysm. Some examples are ‘cotton wool’ sensation or ‘water trickling’. We are not sure why this occurs, but they should ease with time.

Check-ups and results:
Fear of the aneurysm bleeding
The aneurysm will be secured by the coils. Fortunately the risk of bleeding from a coiled aneurysm is extremely rare.

You will be followed up and scanned regularly once you have gone home. This is usually at six months, two years and five years. We stop follow up after this time if the secured aneurysm remains unchanged.
Significant, unavoidable or frequently occurring risks of this procedure

The procedure will not be carried out unless it is considered that the benefits outweigh any possible risks. You will have discussed the procedure and risks with your neurosurgeon/ interventional neuroradiologist and given your consent before you decide to go ahead with the procedure.

The risks of coiling are complications that include:

- Stroke-like symptoms such as weakness or numbness in an arm or leg; problems with speech or problems with vision. In rare cases, this can be very serious and result in serious disability or death.
- Risk of bleeding, infection or arterial damage at the entry site in the groin.

Can the coils move?

The coils may settle into the space within the aneurysm. This is called coil compaction. This may mean that more coils are required to seal off the aneurysm fully or the situation may simply be kept under surveillance if your doctors feel the aneurysm remains safe from bleeding.

Alternative procedures that are available

- Intracranial aneurysms can be treated either by means of an open operation – traditional surgical methods, or by means of the endovascular route whereby a coil is placed within the aneurysm by means of a thin tube passed up through an artery from the groin.
- Both procedures will be fully explained to you. The initial risks are similar. However, some aneurysms are better treated with surgery compared to endovascular treatment, and vice versa. A full discussion of these two procedures will be offered from your treating surgeon.
- You can decide not to have this or any treatment, eg you might wish to wait until you are more certain or have sufficient information to make an informed decision. The risks of not having this aneurysm treated will be discussed with you.

Information and support

For any emergency - see your GP or your local accident and emergency department.
For advice contact your consultant’s nurse specialist – via Addenbrooke’s switchboard. For advice on appointments – contact your consultant’s secretary - via Addenbrooke’s switchboard.

Contacts

Neurosurgical Nurse Specialist – 01223 216189
Addenbrookes Switchboard 01223 245151
www.smokefree.nhs.uk
Advice on alcohol - [www.drinkaware.co.uk](http://www.drinkaware.co.uk) or [www.drinkingandyou.com](http://www.drinkingandyou.com)


Neuro-support 01223 156981 [www.neurosupport.org.uk](http://www.neurosupport.org.uk)

Brain and Spine foundation 0808 808 1000 [www.brainandspine.org.uk](http://www.brainandspine.org.uk)

Smoking Cessation Helpline can be found near you either through your GP or [http://www.nhs.uk/Service-Search/Smoking%20cessation%20clinic/LocationSearch/636](http://www.nhs.uk/Service-Search/Smoking%20cessation%20clinic/LocationSearch/636)

### Anaesthesia

Anaesthesia means ‘loss of sensation’. There are three types of anaesthesia: general, regional and local. **The type of anaesthesia chosen by your anaesthetist depends on the nature of your surgery as well as your health and fitness.** Sometimes different types of anaesthesia are used together.

**Before your operation**

Before your operation you will meet an anaesthetist who will discuss with you the most appropriate type of anaesthetic for your operation, and pain relief after your surgery.

To inform this decision, he/she will need to know about:

- your general health, including previous and current health problems
- whether you or anyone in your family has had problems with anaesthetics
- any medicines or drugs you use
- whether you smoke
- whether you have had any abnormal reactions to any drugs or have any other allergies
- your teeth, whether you wear dentures, or have caps or crowns.

Your anaesthetist may need to listen to your heart and lungs, ask you to open your mouth and move your neck and will review your test results.

**Pre-medication**

You may be prescribed a ‘pre-med’ prior to your operation. This is a drug or combination of drugs which may be used to make you sleepy and relaxed before surgery, provide pain relief, reduce the risk of you being sick, or have effects specific for the procedure that you are going to have or for any medical conditions that you may have. **Not all patients will be given a premed or will require one and the anaesthetist will often use drugs in the operating theatre to produce the same effects.**
Moving to the operating room or theatre

You will usually change into a gown before your operation and we will take you to the operating suite. When you arrive in the theatre or anaesthetic room and **before starting your anaesthesia**, the medical team will perform a check of your name, personal details and confirm the operation you are expecting.

Once that is complete, monitoring devices may be attached to you, such as a blood pressure cuff, heart monitor (ECG) and a monitor to check your oxygen levels (a pulse oximeter). An intravenous line (drip) may be inserted. If a regional anaesthetic is going to be performed, this may be performed at this stage. If you are to have a general anaesthetic, you may be asked to breathe oxygen through a face mask.

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.

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 at the correct level of unconsciousness for the period of the surgery. 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.

What will I feel like afterwards?

How you will feel will depend on the type of anaesthetic and operation you have had, how much pain relieving medicine you need and your general health.

Most people will feel fine after their operation. Some people may feel dizzy, sick or have general aches and pains. Others may experience some blurred vision, drowsiness, a sore throat, headache or breathing difficulties.

You may have fewer of these effects after local or regional anaesthesia although when the effects of the anaesthesia wear off you may need pain relieving medicines.

What are the risks of 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 performed in an emergency.
Patient Information

Elective coil occlusion of brain aneurysm, CF496, Version 2, September 2018

Very common (1 in 10 people) and common side effects (1 in 100 people)
Feeling sick and vomiting after surgery
Sore throat
Dizziness, blurred vision
Headache
Bladder problems
Damage to lips or tongue (usually minor)
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
Muscle pains
Slow breathing (depressed respiration)
Damage to teeth
An existing medical condition getting worse
Awareness (becoming conscious during your operation)

Rare (1 in 10,000 people) and very rare (1 in 100,000 people) complications
Damage to the eyes
Heart attack or stroke
Serious allergy to drugs
Nerve damage
Death
Equipment failure

Deaths caused by anaesthesia are very rare. There are probably about five deaths for every million anaesthetics in the UK.

For more information about anaesthesia, please visit the Royal College of Anaesthetists’ website: www.rcoa.ac.uk
Information about important questions on the consent form

1 Creutzfeldt Jakob Disease (‘CJD’)

We must take special measures with hospital instruments if there is a possibility you have been at risk of CJD or variant CJD disease. We therefore ask all patients undergoing any surgical procedure if they have been told that they are at increased risk of either of these forms of CJD. This helps prevent the spread of CJD to the wider public. A positive answer will not stop your procedure taking place, but enables us to plan your operation to minimise any risk of transmission to other patients.

2 Photography, Audio or Visual Recordings

As a leading teaching hospital we take great pride in our research and staff training. We ask for your permission to use images and recordings for your diagnosis and treatment; they will form part of your medical record. We also ask for your permission to use these images for audit and in training medical and other healthcare staff and UK medical students; you do not have to agree and if you prefer not to, this will not affect the care and treatment we provide. We will ask for your separate written permission to use any images or recordings in publications or research.

3 Students in training

Training doctors and other health professionals is essential to the NHS. Your treatment may provide an important opportunity for such training, where necessary under the careful supervision of a registered professional. You may, however, prefer not to take part in the formal training of medical and other students without this affecting your care and treatment.

4 Use of Tissue

As a leading biomedical research centre and teaching hospital, we may be able to use tissue not needed for your treatment or diagnosis to carry out research, for quality control or to train medical staff for the future. Any such research, or storage or disposal of tissue, will be carried out in accordance with ethical, legal and professional standards. In order to carry out such research we need your consent. Any research will only be carried out if it has received ethical approval from a Research Ethics Committee. You do not have to agree and if you prefer not to, this will not in any way affect the care and treatment we provide. The leaflet ‘Donating tissue or cells for research’ gives more detailed information. Please ask for a copy.

If you wish to withdraw your consent on the use of tissue (including blood) for research, please contact our Patient Advice and Liaison Service (PALS), on 01223 216756.
Privacy & dignity

Same sex bays and bathrooms are offered in all wards except critical care and theatre recovery areas where the use of high-tech equipment and/or specialist one to one care is required.
Consent Form

Elective coil occlusion of brain aneurysm

A Patient’s side  left / right  or  N/A

Consultant or other health professional responsible for your care

Name and job title:

☐ Any special needs of the patient (e.g. help with communication)?

Please use ‘Procedure completed’ stamp here on completion:

B Statement of health professional (details of treatment, risks and benefits)

1 I confirm I am 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:

a) the intended benefits of the procedure (please state)
   - To pack the aneurysm with coils so that blood is not able to enter it and allow the aneurysm to seal over.

b) the possible risks involved. Addenbrooke's always ensures any risks are minimised. However all procedures carry some risk and I have set out below any significant, unavoidable or frequently occurring risks including those specific to the patient
   - Stroke-like symptoms such as weakness or numbness in an arm or leg; problems with speech or problems with vision. In rare cases, this can be very serious and result in serious disability or death.
   - Risk of bleeding, infection or arterial damage at the entry site in the groin.

c) what the treatment or procedure is likely to involve, the benefits and risks of any available alternative treatments (including no treatment) and any particular concerns of this patient:
Elective coil occlusion of brain aneurysm

2 The following information leaflet has been provided:
Elective coil occlusion of brain aneurysm

Signed (Health professional):………………………………………………….. Date: D.D/ M.M / Y Y Y Y
Name (PRINT):…………………………………………………………………….. Time (24hr): H H : M M
Designation:………………………………………………………………………… Contact/bleep no:

Consent of patient / person with parental responsibility

I confirm that the risks, benefits and alternatives of this procedure have been discussed with me and that my questions have been answered to my satisfaction and understanding.
Important: please read the patient information about this procedure and then put a tick in the relevant boxes for the following questions:

1 Creutzfeldt Jakob disease (CJD)
Have you ever been notified that you are at risk of CJD or variant CJD for public health purposes? If yes, please inform your health professional. 

☐ Yes ☐ No

2 Photography, Audio or Visual Recording
a) I agree to the use of any of the above type of recordings for the purpose of diagnosis and treatment.

☐ Yes ☐ No

b) I agree to unidentified versions of any of the above recordings being used for audit and medical teaching in a healthcare setting.

☐ Yes ☐ No

3 Students in training
I agree to the involvement of medical and other students as part of their formal training.

☐ Yes ☐ No
4 Use of Tissue

a) I agree that tissue (including blood) not needed for my own diagnosis or treatment can be used and stored for ethically approved research which may include ethically approved genetic research.

☐ Yes  ☐ No

b) Where additional clinical information is needed for the purposes of ethically approved research, I agree that relevant sections of my medical record may be looked at by researchers or by relevant regulatory authorities. I give permission for these individuals to have access to my records.

☐ Yes  ☐ No

I have listed below any procedures that I do not wish to be carried out without further discussion.


I have read and understood the Patient Information about this procedure and the above additional information. I agree to the procedure or treatment.

Signed (Patient): ___________________________________________ Date: D.D./M.M./Y.Y.Y.Y.
Name of patient (PRINT): ___________________________________________
D Confirmation of consent

Confirmation of consent (where the treatment/procedure has been discussed in advance)
On behalf of the team treating the patient, I have confirmed with the patient that she/he has
no further questions and wishes the treatment/procedure to go ahead.

Signed (Health professional): ........................................... Date: ...D.D./M.M./Y.Y.Y.Y...

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

Please initial to confirm all sections have been completed:

E Interpreter’s statement (if appropriate)

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

Signed (Interpreter): ........................................... Date: ...D.D./M.M./Y.Y.Y.Y...

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

Or, please note the language line reference ID number:

F Withdrawal of patient consent

☐ The patient has withdrawn consent (ask patient to sign and date here)

Signed (Patient): ........................................... Date: ...D.D./M.M./Y.Y.Y.Y...

Signed (Health professional): ........................................... Date: ...D.D./M.M./Y.Y.Y.Y...

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

For staff use only:
Hospital number:
Surname:
First names:
Date of birth:
NHS no: _ _ _ / _ _ _ / _ _ _
Use hospital identification label

Patient safety – at the heart of all we do

Addenbrooke’s Hospital | Rosie Hospital