Patient Information

Elective Coil Occlusion Of Brain Aneurysm
**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 risk that the aneurysm will burst and cause a brain haemorrhage (subarachnoid haemorrhage). This is the reason treatment is offered.

![Diagram of brain aneurysm](image)

**What is coil occlusion of aneurysm?**

This is an endovascular treatment which means it is performed through a blood vessel by a consultant interventional neuro radiologist. 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. The coils are then deposited 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.

![Coils inside the aneurysm](image)
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. A stent is a tube placed inside the artery. Occasionally, certain types of stents are used on their own.

You should have clear instructions on the medication such as aspirin and any other antiplatelet (blood thinning) tablets you may need to take afterwards before you go home. Please ask your medical team, Nurse specialist or ward nurse for this. You should not stop this medication unless you are advised to do so by your medical team.

What happens before the procedure?
You are generally brought to pre op clinic to be assessed and allow you to ask questions regarding the procedure. The purpose is to ensure your safety whilst you are being treated. You will be kept nil by mouth for 6 hours before the procedure. Occasionally you may have some blood taken the day before the procedure and start blood thinning medication.

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.
What happens during the procedure?
Coiling is a complex and delicate procedure that may take a few hours or longer. The neuro radiologist makes a small cut in your groin and 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 about the thickness of human hair. The length of them varies. The number of coils needed depends on the size of the aneurysm.

What happens after the procedure?
After your aneurysm is treated, you will spend some time in the post operative care unit (POCU). You will be assessed and go back to the same ward once it is safe to do so. Sometimes it is necessary for you go to the critical care unit where there are more facilities to treat and monitor you if that is what your interventional neuro radiologist orders. We do not normally start a procedure if there are no critical care beds available as your safety is our priority.

Once back on the ward, you will need to lie down on bed rest for 6 hours. This helps to minimise the pressure on the artery that has been used.

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 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 (D.V.T.’s) in your legs whilst you aren’t moving around as much and are discontinued when you get home.
You will be allowed to gradually sit up after 6 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.

**What are the risks of coiling?**
• The procedure will not be carried out unless 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 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.
• There is also a 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.

**When will I go home?**
Once your medical team are happy that you no longer need treatment you will be allowed to go home. This is often 2 or 3 days after the procedure if there are no complications.

You will have had a baseline magnetic resonance (MRI) scan before you go home. If this cannot be fitted in and you are ready to go home then your medical team may allow you to come back for it.
You will normally go home on a course of aspirin. Sometimes other blood thinning tablets are added such as clopidogrel. 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.

Some advice for recovery.

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 2 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.
Returning to work
You can return to work as soon as you feel able although most people need about 2 weeks off to recover. (Occasionally more if there have been complications)

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.

Fear of the aneurysm bleeding
This is a very common fear for a lot of patients after an aneurysm is sealed off.

Unfortunately the risk is real but it is extremely small. Because the aneurysm cannot be taken away, it is important to learn a coping strategy. You will be followed up and scanned regularly once you have gone home. This is usually after the procedure, 6 months, 18 months and 5 years. We only stop follow up after this time when your medical team think it safe to do so.

Commonly asked questions.

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 2-3 units each day and men 3-4 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
It is advisable not to start a family for the first 6 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 M.R.I. 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 6 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.
For any emergency see to your own G.P or your local Accident and Emergency Department

Neurovascular Clinical Nurse Specialist – 0151 529 6530 (or via Walton Centre switchboard)

Advice on appointments – contact your consultant’s secretary through hospital switchboard.

**Walton Centre switchboard** – 0151 525 3611

- **Lipton Ward**—0151 529 8884 / 8738
- **Cairns Ward** – 0151 529 5637 / 5638
- **Dott Ward** - 0151 529 5633 / 5634
- **Caton Ward** – 0151 529 5628 / 5629
- **Sherrington Ward** - 0151 529 5641 / 5642
- **High dependency** – 0151 529 5489
- **Intensive Care** – 0151 529 5772

Customer Care Team provide a (PALS) service – 0151 529 6100

NHS Free smoking helpline. - 0800 0224 332
www.smokefree.nhs.uk

Advice on alcohol - www.drinkaware.co.uk or www.drinkingandyou.com

D.V.L.A. - 0870 6000301 www.dvla.gov.uk

Neurosupport 0151 298 2999 www.neurosupport.org.uk

Brain and Spine foundation 0808 808 1000. www.brainandspine.org.uk
Notes
The Walton Centre NHS Foundation Trust

Lower Lane, Fazakerley
Liverpool L9 7JL

Tel: 0151 529 5511
Fax: 0151 529 5500

©The Walton Centre NHS Foundation Trust. All rights reserved. No reproduction by or for commercial organisations is allowed without the express written permission of The Walton Centre

For practical advice our Customer Care Team provides a (PALS) service. Contact our Customer Care Team on 0151 529 6100, or

Email: Customer.careteam@thewaltoncentre.nhs.uk

Alternatively, log on to: www.neurosupport.org.uk or call 0151 298 2999 for advice and information for people with neurological conditions and their carers.

Produced by: C Stoneley Neurovascular C.N.S.
Version: 1
Reviewed: July 2012
Review Date: 2014