



Catheter Ablation for Atrial Fibrillation Information for Patients

Website: www.uhnm.nhs.uk Tel: 01782 715444

Cardiac Catheter lab: Tel: [REDACTED]

This leaflet has been written to provide you with information and advice regarding the procedure of catheter ablation to treat your heart rhythm disturbance. We hope it answers some of the questions or concerns you may have. It is not intended to replace talking with medical or nursing staff.

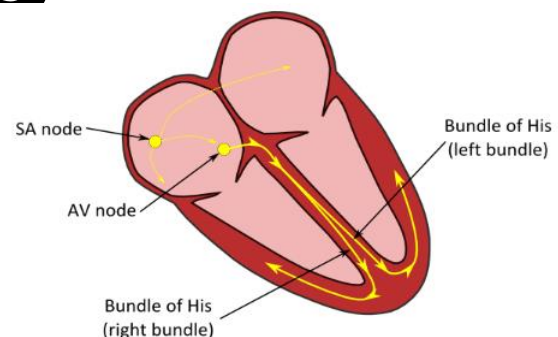
You will need to arrive at the Heart and Lung Reception, Level 1, in the main building at the time stated on your appointment letter.

Date of procedure _____

The Pre-Assessment Nurse will write any special instructions for medication and fasting here:

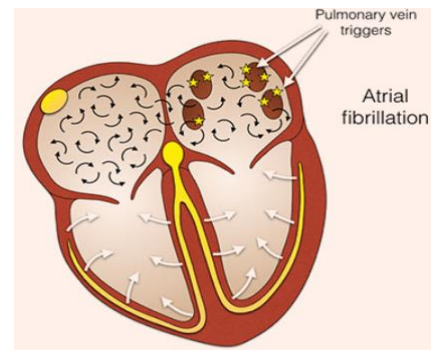
The normal electrical system of the heart

The heart has its own electrical conduction system, which sends signals throughout the upper chambers (atria) to the lower chambers (ventricles) of the heart in order to make it beat in a regular, coordinated rhythm. A normal heart beat begins when an electrical impulse is fired from the sinus node (SA node), in the right atrium. The sinus node is responsible for setting the rate and rhythm of the heart and is referred to as the heart's pacemaker. The pacemaker fires electrical impulses throughout the atria, causing them to contract and squeeze blood into the ventricles. The electrical impulse then reaches the atrioventricular node (AV node), which acts as a gateway, slowing and regulating the impulses travelling between the atria and the ventricles. As the impulse travels down the pathways into the ventricles the heart contracts and pumps blood around the body. The cycle then begins again; this is called normal sinus rhythm.



Atrial Fibrillation

Atrial fibrillation is an abnormal heart rhythm where the electrical signals in your upper chambers of your heart (atria) are very fast and irregular. The abnormal impulses (fibrillation waves) are usually triggered from pulmonary veins, which return blood from the lungs to the heart. Three to four hundred fibrillations occur per minute in a chaotic manner. The AV node conducts many of these impulses causing the heart to pump in an irregular, often fast rhythm.



This can cause symptoms palpitations, shortness of breath, tiredness, and sometimes chest pain. Atrial fibrillation may be continuous (persistent) or occasional (paroxysmal). Some people do not have any symptoms and are unaware they have the condition. Catheter ablation is offered to people who suffer with symptoms of atrial fibrillation who are intolerant of medication or who have troublesome symptoms even with medication.

What is a cardiac catheter ablation?

Ablation for atrial fibrillation can be carried out with sedation and local anaesthetic or with general anaesthesia. The procedure takes between 2 to 3 hours and can be carried out using a freeze (cryo ablation) or heat (radio frequency ablation) technique. Both procedures are equally effective and your operator will decide the modality used.

Access to your heart will be via sheaths that will be inserted into your right femoral vein (see image below). Local anaesthetic will be infiltrated into your skin first and you will be given sedation and pain relief via a cannula placed in a vein on your arm. Using the sheaths in your groin, wires will be positioned in your heart, guided by X-ray images and the septum (wall separating the two top chambers of your heart) will be punctured to get access to the left atrium. The pulmonary veins will then be isolated by freezing/ cauterising around the veins. Depending on the type of atrial fibrillation you have, you may require additional work in the left atrium to maintain a normal rhythm. You will be given heparin (blood thinning) during your procedure to

minimise the risk of blood clots and stroke. At the end of the procedure, the sheaths may be left in your groin until the effect of heparin wears off.

You may sometimes require a scan called a trans oesophageal echocardiogram prior to your ablation. This will involve passing a camera probe through your mouth into your gullet under sedation and local anaesthetic and will be quick and focused to ensure you don't have any clots in your heart.

How successful is catheter ablation for Atrial Fibrillation?

The benefit of having a catheter ablation for atrial fibrillation is that it will control the heart rhythm disturbance and reduce the need to take medication to control palpitations and symptoms.

Catheter ablation for atrial fibrillation at The University Hospital of North Midlands is considered to be 60- 75% effective in those with paroxysmal atrial fibrillation with a single procedure; 25% of patients require a second procedure. The success rate for a single procedure for those with persistent atrial fibrillation is 50-60%.

Risks of catheter ablation for Atrial Fibrillation

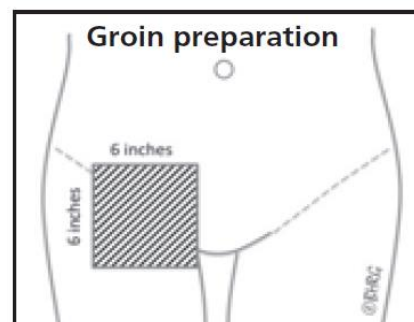
Atrial fibrillation ablation is a safe procedure, however with any procedure there are potential risks. The procedure will only be offered to you if the benefit to your health outweighs these risks and this will be fully explained by our doctors before you have the ablation.

The potential risks are outlined below and can usually be treated effectively:

- Significant bleeding or damage to the blood vessels in the leg where the catheter enters the skin 1% (1/100)
- Heart attack, stroke, or puncture through the heart wall resulting in blood leaking out of and building up around the heart (cardiac tamponade) 1% (1/100)
- Phrenic nerve damage 2% (1/50)
- Pulmonary vein narrowing <1% (1/100)
- Atrio-oesophageal fistula (hole between the heart and the gullet) 0.1% (1/1000)
- Death 0.05% (1/2000)

What happens before the procedure?

Before your admission to hospital you will be invited to a pre-admission clinic with a nurse specialist who will run through all the aspects of the procedure with you. This is a good time to ask any questions you may have. You can also finalise where and when you need to attend the hospital for your procedure,



plus whether you need to fast (avoid anything to eat or drink) prior to admission. You will be given instructions regarding your current medications such as which to stop and when. You must follow these instructions carefully as it may be necessary to cancel your operation if this is not done correctly. It is very important that you do not miss any blood thinning medications in the 4 weeks leading up to your procedure (Apixaban, Dabigatran, Edoxaban, Rivaroxaban or Warfarin) and if you do, you must inform us in hand as this would be associated with an increased risk of stroke.

On the day of the procedure it is helpful if you can prepare the right groin area by carefully shaving the area of about 15cm x 15cm (6inx6in) as in the diagram above. If you are unable to do this, it will be done at the time of the procedure.

What happens after the procedure?

After the procedure you will be moved to the recovery area in the catheter lab where you will be monitored for a short time. You will need to rest for a few hours and may feel a little sleepy until your sedative has worn off.

The nurse will record an ECG, check your blood pressure, pulse and feel your foot pulses. The nurse will also check your groin for any bleeding. It is important that you remain in bed and avoid bending your affected leg for approximately two hours after the sheaths have been removed. This is to prevent any bleeding from the puncture site. After this time you will be able to get up if there are no complications. You will be able to eat and drink normally. The nurse will remove the small cannula in your hand.

Going home

Most people go home later the same day, or sometimes the day after the procedure. If you go home the same day, we would advise you to have someone stay with you overnight. You should rest for the remainder of the day and limit the number of times you use the stairs.

Driving

You will not be able to drive for two days after which you can start to drive again provided there is no other disqualifying condition.

If you drive a vehicle for which you need a special licence (LGV and PSV) you will need to inform the DVLA that you have had the procedure. You will not be able to drive for two to six weeks depending on the type of ablation. You can find more information about this at the DVLA website (www.dvla.gov.uk) or call 0300 790 6806.

Pain relief

Most people do not have any pain or discomfort following the procedure. If, however you feel any discomfort from the puncture site, you may find that taking simple painkillers such as regular paracetamol will help.

Looking after the puncture site

You should check the puncture site daily for the first few days after you get home;

You may experience some bruising although there should not be any swelling.

You may have a shower the day after the procedure. If you prefer to have a bath you should wait two days. Take care when washing and drying the puncture site.

It would be unusual for bleeding to occur once you are at home. If this happens you should lie down and apply firm pressure just over the puncture site for 15 minutes. If the bleeding does not stop after this time or you have any numbness, pain or swelling you should contact your GP, NHS direct or local Accident and Emergency department.

Approximately one week after the procedure you may notice a hard pea sized lump develop at the puncture site, this is quite common and will eventually disappear.

Should you have any persistent pain/ swelling at the puncture site, you must get in touch with us on the number given on this leaflet.

Heart rhythm following the procedure

It is quite common to have an increased awareness of your heartbeat following the ablation. You may notice fluttering extra or 'missed beats', these feelings normally settle within three to four weeks of the procedure.

Resuming normal activities

You may have been given sedation during the procedure. Although you may not be aware of it, sedation can remain in your system for up to 24 hours and can cause you to be less alert than normal. It is important that you do not drive, drink alcohol, operate machinery or sign legally binding documents within 24 hours of the procedure. It would be advisable to be escorted home and have someone stay with you overnight when you go home.

You should arrange to take approximately one week off work, although this varies depending upon the type of job you do. Your cardiologist will advise you if you require longer. You should avoid lifting heavy objects for one to two weeks.

Holidays

Generally, we advise you should avoid going on holiday for four weeks after the catheter ablation, just in case your recovery is delayed, the procedure is not successful, or complications occur.

Medication

Your consultant may have made changes or additions to any medication following the procedure. If so you will be given a 14 day supply of medication to take home with you. Details of your prescribed medication will be sent to you GP and it is important that you order further supplies before you run out. **It is very important that you continue to take all of the medication as prescribed**, especially your blood thinners.

What happens next?

Our doctors will write a detailed letter to your GP describing your hospital stay and treatment. You will be reviewed as an outpatient approximately three-four months after the procedure. You will be contacted by letter and informed of the date, time

and place to attend. Please note however, you may not be seen by your consultant at this visit, but by another member of the Cardiology team who can discuss your care with your consultant if required.

Who do I contact if I have any problems after I go home?

Monday to Friday 8am-8pm Catheter lab [REDACTED]

Saturday or Sunday/out of hours Ward [REDACTED]

Please contact your GP, ring 999 or go to your nearest A&E department if you are in need of immediate help, for example, are having severe chest pain, breathlessness, palpitations or dizziness.

Please contact your consultant's secretary with any appointment queries.

The following websites also provide useful information

- British Heart Foundation www.bhf.org.uk
- Heart rhythm Charity www.heartrhythmcharity.org.uk
- Arrhythmia Alliance www.heartrhythmalliance.org
- Atrial Fibrillation Association www.afa.org.uk
- The DVLA www.dvla.gov.uk

FOI ref 105-1920