

Additional Notes

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Catheter ablation for atrial fibrillation

Cardiac Intervention Unit

This booklet is to help you understand
about your Catheter Ablation
for Atrial Fibrillation.

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Important points to remember

Please read this booklet carefully. If you have any further questions or concerns contact the arrhythmia nurse specialists on **0300 019 6154** or email **arrhythmia.nurses@uhd.nhs.uk**.

- Your admission letter will give you details of where you will be admitted.

On the morning of the procedure:

Please shower on the morning of your admission and bring all your medication with you to hospital.

It is very important you do not miss any doses of your blood thinning anticoagulants, for example your Warfarin or Direct Oral Anticoagulants (DOACs) such as Apixaban, Dabigatran, Edoxaban and Rivaroxaban, in the time leading up to your procedure.

If you think you have missed a dose or are unsure of your instructions, please call the arrhythmia nurse specialists.

The electrical system of the heart

The heart consists of two pumps side by side. One pump circulates blood around the lungs before emptying into the second pump. The second pump circulates blood around the body. Each pump consists of two chambers, the atrium and the ventricle.

The heart needs an electrical impulse to generate a heartbeat. In normal heart rhythm the electrical impulse starts in the heart's natural pacemaker called the Sino Atrial node (SA node). The SA node is sited in the right atrium. The electrical impulse travels through the tissues of the conduction system causing the heart muscle to contract in sequence, the atrium before the ventricle. There is a junction between the atria and ventricles called the Atrio-Ventricular node (AV node) that allows communication between these chambers.

Additional Notes

In general AF originates from the area around the “pulmonary veins” (the veins which drain blood from the lungs to the heart), which are located in the top left chamber of the heart (the left atrium). Symptoms of AF may include:

- palpitations
- feeling tired
- shortness of breath
- dizziness or light-headedness
- chest pain or tightness.

By damaging the tissue around the pulmonary veins, AF can potentially be cured or its symptoms improved. To do this, an ablation wire is introduced into the left atrium. This requires a tiny hole to be created between the right and left atria. This hole will seal by itself following the procedure. Ablation designed to cure AF often takes longer than most other ablation procedures and the risks are slightly greater. Your doctor will discuss these risks with you prior to the procedure.

Where is the catheter ablation performed?

‘The study takes place in a special room, which looks like an operating theatre and is called a catheter lab or ‘cath lab. In this room with you will be:

- The cardiologist who will perform the test.
- Two nurses, one to look after you and one to help the doctor.
- A radiographer who takes the x-ray films.
- A cardiac physiologist who will monitor your heart while you have the test.

Are there any complications?

Although the following complications must be mentioned, the risk of them happening is extremely small. Please do discuss any particular concerns that you have prior to the ablation.

- Your groin will have some minor bruising and short lived tenderness
- There is a small risk of temporary phrenic nerve damage, if cryotherapy is used
- Blood may leak out around the heart and need to be drained off using a chest drain (pericardial effusion)
- There may be damage to the blood vessels at the top of the leg, resulting in a large bruise and possibly bleeding at the top of your leg which may require further treatment (false femoral aneurysm)
- The procedure may cause major complications such as heart damage or stroke.
- The risk of a major complication is up to 2 in 100 (2%).

If an emergency situation occurs during the procedure, we will do whatever is possible to treat it. Although extremely rare, this emergency treatment could include ‘open-heart surgery’.

Your doctor feels that the benefits that can be gained from performing this procedure outweigh any of the risks involved.

Internet sites

The following are web sites that provide information for patients. Whilst we recommend these sites, we cannot be held responsible for information that you collect from them. To locate the site connect to the addresses below:

www.arrythmiaalliance.org.uk

www.bhf.org.uk

www.dvla.gov

www.guidant.com

www.medtronic.com

www.sjm.com

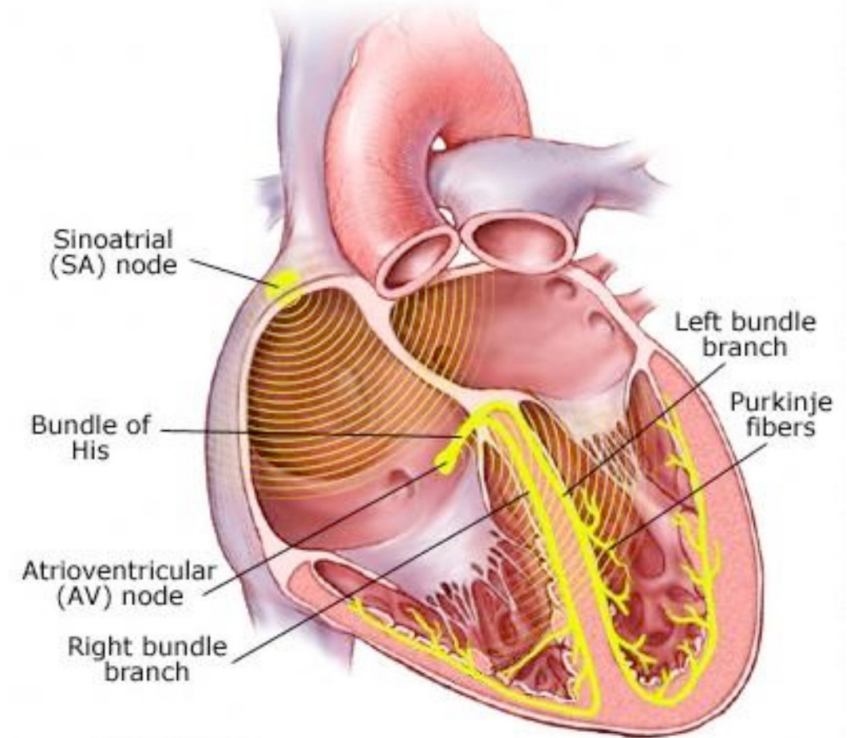
The Bournemouth and Christchurch Heart Fund

The Bournemouth and Christchurch Heart Fund

(charity no. 216161) was set up in 1989 for the purpose of developing cardiac services which would not be supplied through National Health Services resources. Several of the recent purchases of equipment since the cardiac department was established have been provided or supported through non-NHS money. In order to continue to maintain and update our facilities, donations are greatly appreciated.

If you would like to contribute, cheques should be made payable to “**The Bournemouth and Christchurch Heart Fund**” and sent to the Cardiac Department (Dr Rozkovec’s office).

Cardiac conduction system



The heart normally beats at 50 - 100 times per minute at rest. The heart beats regularly and slowly at rest and faster during physical and emotional activity.

What is atrial fibrillation?

Atrial Fibrillation (AF) occurs when chaotic electrical activity develops in the upper chambers of the heart (the atria) and completely takes over normal heart rhythm. Consequently the atria no longer contract in an organised fashion and pump less efficiently. The bottom chambers of the heart beat irregularly and often at a faster rate than normal. You may experience periods of AF followed by normal heart rhythm or you may be in AF all of the time.

Atrial fibrillation or other rhythm disturbance occurring during the procedure may need to be treated by an electrical shock. If your procedure is being done under sedation rather than a general anaesthetic, extra sedation will be given to ensure that you will not be disturbed by this shock.

Before the ablation

Please shower on the morning of your admission.

Please bring all your medication to hospital.

A hospital gown will be provided for you to wear. A little plastic tube will be inserted into your arm to enable you to be given any medication you might require during the procedure. You will receive instructions on when you should stop eating and drinking prior to admission. A small sip of water to swallow tablets is allowed. If you wear dentures they can remain in place providing they fit well.

Before the ablation you will be seen by a doctor who will explain what the procedure involves and what risks or complications may be associated with the procedure. You will be asked to sign a consent form to allow the ablation to go ahead.

AF ablations are performed either with a general anaesthetic or heavy sedation. You will be seen by an anaesthetist before the procedure if this is required.

After the ablation

After the procedure has finished you will be taken to the recovery area for close observation and monitoring while you are waking up from the anaesthetic. A nurse will check your blood pressure, pulse and wound in the groin. You will continue to be closely observed for a period of time following the procedure. You will need to lie flat for two hours to enable the wound in your groin to heal.

Your nurse will make sure you are comfortable and help you have a drink. Once you are able to sit up you will be able to have something to eat.

You will have an electrocardiogram (ECG) after your recovery and a further one in the morning.

Your doctor or arrhythmia nurse will discuss the catheter ablation with you and you should be able to go home the following morning.

Going Home

- You must have someone to collect you from the ward.
- We do not advise using public transport.
- The Driving and Vehicle Licensing Agency (DVLA) have guidelines for patients who have received an ablation. Generally you can't drive for two days after an ablation. If you drive for a living or hold a Group 2 (bus/lorry) licence, please ask the arrhythmia nurses or DVLA what restrictions apply. You can access the DVLA guidelines at www.gov.uk/driving-medical-conditions.
- You will need to plan one week off work following a catheter ablation.

- You may experience some chest discomfort for up to one week after the procedure.
- It is not unusual to experience some bruising of the groin, which may last for a few days.
- You should continue to take your medications as normal, unless the Doctor has told you not to.
- It is not unusual for people to feel tired for some time after the procedure.
- You will be seen in the outpatient clinic approximately two to three months following the procedure. Prior to this you may be asked to wear a monitor so we can analyse your rhythm.

You may continue to experience some AF in the early stages following the ablation but this does not mean the procedure has been unsuccessful. However, some patients will require more than one procedure. It can take a while for the heart to settle down after the ablation and for the Doctor to know how successful the procedure has been.

If you are continuing to notice that your heartbeat is irregular it is important to try and have a heart tracing (ECG) performed while experiencing these symptoms. This can be performed either at your GP surgery or by attending the Accident and Emergency Department. If this is the case please inform the Arrhythmia Nurse Specialists over the telephone.

If you have any new medical concerns when you return home you should contact your GP. In any medical emergency you can present to the Accident and Emergency Department or call **999**.

If you have any questions about your ablation procedure contact: **The Arrhythmia Nurse Specialists** on **0300 019 6154**.

How is the Catheter Ablation performed?

If the procedure is done under general anaesthetic the Anaesthetist will give you drugs so you fall asleep. If you do not have an anaesthetic you will be given sedation that will make you drowsy.

You will lie as flat as you are able on the x-ray table, with a pillow. The physiologist will place some stickers on your chest, a blood pressure cuff on your arm and a probe on your finger. This will enable the heart rate, blood pressure and oxygen levels to be observed throughout the study. An oxygen mask may also be placed on your face.

If you have a general anaesthetic a tube (urinary catheter) may be inserted into your bladder whilst you are asleep to drain urine. This will usually be removed before you return to the ward. Once you are asleep or sleepy both groins will be cleaned with antiseptic solution and local anaesthetic injected here. The local anaesthetic will cause a stinging sensation for a few moments before the area feels numb.

The wires used to record electrical signals from within the heart will then be inserted through fine plastic tubes in your groin. The wires are guided into position using x-ray equipment. The x-ray machine will move around you to make pictures from different angles. As with all x-rays, if there is any chance that you are pregnant, please let the Doctor or Nurse know before the procedure begins. The staff in the lab will wear protective aprons because they are exposed to x-rays every day. Once the wires are positioned, the Doctor will look at your heart rhythm disturbance by recording the electrical signals on a computer. The ablation is usually performed by heating or freezing a catheter which is in contact with the heart tissue. This permanently damages the tissue and affects the conduction system.