

Having a cardioversion for your irregular heart rhythm

Cardiology Department

Information for Patients

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Introduction

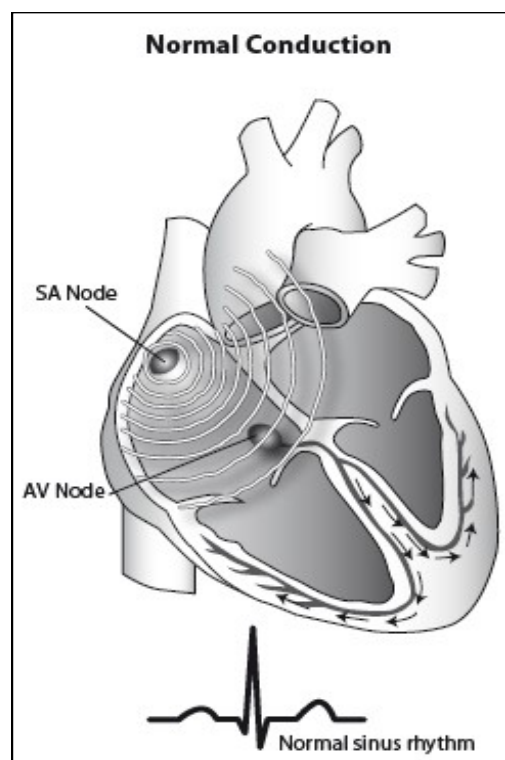
This leaflet has been written to help you understand a procedure called 'cardioversion'. This is a treatment for abnormal and fast heart rhythms such as atrial fibrillation, and atrial flutter.

How does the heart work normally?

It is important to understand the heart's normal electrical system and how it works first to help explain what is different in your heart and why you are being considered for this procedure.

The heart works to pump the blood around your body and to your brain. It pumps between 60 to 100 times a minute with a regular beat. The pump is driven by electrical signals started by your heart's natural pacemaker called the 'sinus node' which sits in the top right section of the heart called the right atrium. They spread through the top chambers of the heart causing the muscle to contract. This squeezes blood through the heart valves in between the chambers into the bottom of the heart. The signals reach the AV node which is in the middle of the heart.

The signals are slowed down through the AV node and passed down to the bottom chambers of the heart (ventricles), this makes the ventricles contract and squeeze the blood out to go around the body and brain.



**Health information and support is available at www.nhs.uk
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To give feedback about this information sheet, contact InformationForPatients@uhl-tr.nhs.uk

What is different in my heart?

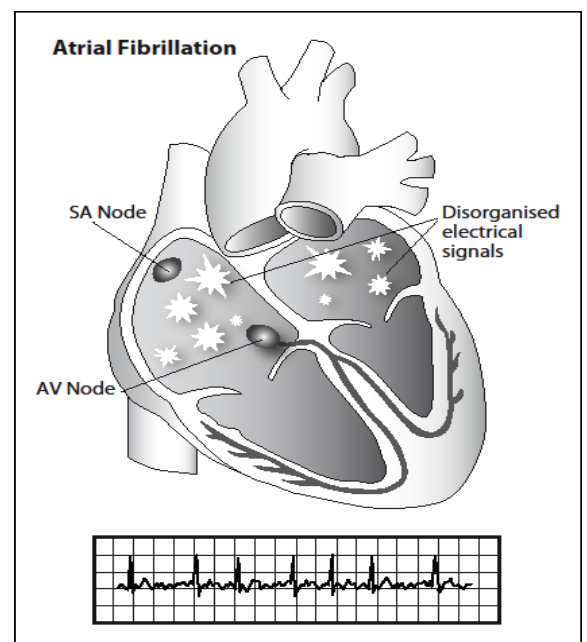
You have been found to have an abnormal rhythm (arrhythmia) called atrial fibrillation or atrial flutter. These rhythms also come from the top chambers of the heart but are different to the normal heart rhythm (sinus rhythm). They can cause you to feel breathless, tired, dizzy, have chest discomfort and be aware of your heart fluttering or have missed beats, but does not put your life at risk. Some people don't have any symptoms and it is found through a routine test called an electrocardiograph (ECG) which traces the electrical activity of your heart.

Atrial fibrillation:

Atrial fibrillation starts when extra electrical signals fire within the atria from many different sites at the same time. This causes parts of the atria to fire at different times. This causes the top chambers to wobble (fibrillate).

The bottom chambers (ventricles) receive the fast signals through the AV node at an irregular rate causing them to beat faster too.

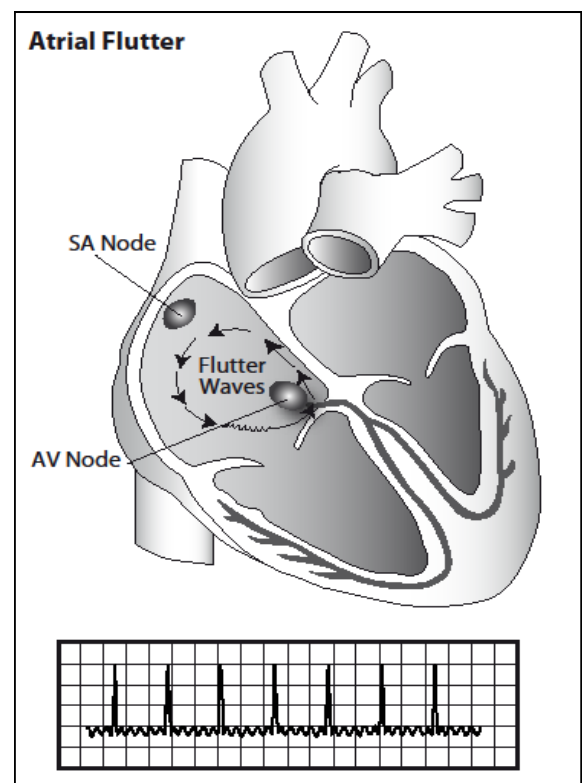
Your wrist pulse feels irregular but the rhythm needs to be diagnosed from an ECG.



Atrial flutter:

Atrial flutter starts when an extra electrical signal fires within one of the top chambers of the heart (atrium) and sets off a short circuit around the atrial chamber. The signals are fast and move around the chamber causing it to beat quickly.

The bottom chambers (ventricles) also receive the fast signals through the AV node causing them to beat faster too. This can be seen and diagnosed on your ECG.



Why have I got this abnormal rhythm?

There are many reasons why people develop atrial fibrillation or flutter, for example:

- High blood pressure
- Thyroid problems
- A short term serious illness
- Drinking more than the recommended amount of alcohol (14 units per week)
- Being very overweight (obese)
- Heart failure or previous heart attack
- Problems with your heart valves, or heart problems you have had since birth (congenital)
- Recent surgery
- Long term (chronic) lung disease
- Diabetes
- A serious sleep disorder in which your breathing stops and starts while you sleep (sleep apnoea)

You will be given advice about your risk factors to help manage these to reduce the risk of developing these abnormal rhythms in the future. Sometimes we are not sure why you have developed the abnormal rhythms.

Why am I being considered for a cardioversion for treatment?

There are 2 ways of treating atrial fibrillation or atrial flutter:

- **Rate control** - controlling the rate of atrial fibrillation and allowing the irregular rhythm to continue. This approach may be chosen if you have:
 - no symptoms
 - had the irregular rhythm for a long time
 - lots of risk factors
- **Rhythm control** - means trying to return the irregular rhythm to normal (sinus) rhythm and keeping it there. This can be done with some medication, **cardioversion** or an ablation procedure. This approach may be chosen if you have:
 - a lot of symptoms
 - limited in activity levels

Your doctor has suggested a cardioversion may be suitable for you. It involves giving the heart a controlled electric shock to try to restore a normal rhythm.

Pre-admission

On a different day before your procedure you will need to be seen in the Cardiac Rhythm Pre-admission Clinic or we will phone you to ask you about:

- your symptoms
- the tablets you take
- your record of blood tests if you take warfarin

You will be given information about the procedure, when to stop some of your tablets and when to stop eating and drinking.

Once you have been given a date for your procedure, you must contact the Cardiac Rhythm Team on **0116 258 3848** as soon as possible if you have any of the following, as we may need to change the date of your procedure:

- A chest infection
- Cough
- Sickness or diarrhoea
- Feel generally unwell
- Missed any doses of your blood thinning medication

Your blood thinning medication (anticoagulants)

Direct-acting oral anticoagulant (DOAC) - if you are on one of the following, you must take this tablet every day as written on the box (**if a dose is missed or it is taken later than normal your cardioversion will be delayed**):

- Rivaroxaban
- Apixaban
- Dabigatran
- Edoxaban

Warfarin - please ensure you have weekly blood tests (INR) for the 3 weeks before and 3 weeks after your cardioversion. Please also arrange a blood test 2 days before you are due to have your cardioversion procedure. If your blood test result drops below the INR level you have been given, your cardioversion will be delayed.

Please leave a telephone message on 0116 258 3848 with your results, together with:

- Name
- Hospital number
- INR result
- Date of test

How do I get ready for the procedure?

- If you are taking warfarin - weekly blood test (INR):
Please phone in with your weekly INR results on 0116 258 3848 (leave your name, hospital number, INR result and date of test).
- Antibacterial wash (Stellisept[®]) and nasal ointment (Bactroban[®]):
Please use as instructed for 48 hours before your admission.
- Follow tablet advice:
At your pre-admission appointment you will be given a tablet advice sheet telling you what to do with your tablets before the cardioversion.
- Arrange transport home:
You will not be able to drive for 24 hours after the procedure. You will need to rest on the ward for at least 2 hours after your procedure. You may also need to wait to discuss the changes to your tablets and the result of the procedure.
- Returning to work:
We advise that you do not drive, operate machinery or return to work for 24 hours.

What do I need to do on the day of my cardioversion?

Do not eat after midnight.

You may drink water only overnight but your **last drink of water will be at 6am, unless instructed otherwise.**

Please come to **Ward 32** for 8am unless instructed otherwise.

Bring all your medication and INR booklet.

What happens when I arrive?

When you arrive on Ward 32 please report to the ward desk and you will be shown to the waiting area.

During the morning we will:

- check your details.
- ask you to confirm that you have followed your medication advice.
- insert a small tube (cannula) into a vein for the sedation medication to be given through.
- shave the hair on your chest and back (if needed).
- answer any questions you may have.

What does the procedure involve?

Just before your cardioversion you will be collected by a member of the team who will again confirm your details. You can either walk or be taken in a chair to the procedure room.

In the procedure room you will meet the rest of the team. We will then:

- confirm your details.
- answer any other questions you may have.
- ask you to undress to the waist, put on a gown and lie down on a trolley.
- attach blood pressure, heart rate and oxygen level monitors to you, along with a sticky pad to the front and back of your chest; this can feel quite cold.
- give you a clear mask to breath oxygen.
- give sedation medication into your cannula; this may feel cold up your arm.

Once you are asleep we will carry out the cardioversion.

Energy is passed through the pads on your chest and back. This makes the heart muscle contract all at the same time, hopefully enabling normal heart rhythm to resume. You will be unaware of this happening. We are **not** stopping your heart.

We will know straight away if the procedure has been successful.

If it doesn't work the first time, or you very quickly go back out of normal rhythm, we may give you some more sedation and do the cardioversion again.

What happens after my procedure?

You will be taken into another area to rest and fully wake up. This takes about 10 to 15 minutes.

We will also:

- record an ECG.
- put some cream on your chest.
- monitor your heart rate, blood pressure and oxygen levels.
- give you a drink of water.
- discuss the result of the cardioversion.
- talk about changes to your tablets if needed.
- answer any questions.

You will then be taken back to the seating area on Ward 32. You can have something to eat and drink. A nurse will make sure you feel okay and do some final checks.

The seating area can be busy. Your family member or friend that may have brought you into hospital may be asked to wait in another room on the ward so that the nurses can safely watch all patients after their cardioversion.

What are the benefits of the procedure?

The aim of a cardioversion is to return you to a normal heart rhythm and improve your symptoms if they were caused by the abnormal heart rhythm. Your heart function may also improve. Further tests may be planned after the cardioversion to assess this.

What are the possible risks of the procedure?

As with any medical procedure there are always risks:

- The cardioversion maybe unsuccessful and the abnormal rhythm remains.
- The cardioversion may be successful at first, but an abnormal rhythm returns in the future.
- There is a possibility that your heart rate may slow.
- There is a less than 1% risk of stroke.
- If a different anticoagulant to warfarin is being prescribed, the risk of stroke increases if any doses are missed or delayed.
- Superficial skin burns.

The above information will be written in your discharge letter. You will be given a copy of this along with an advice sheet. Your GP will also be sent a copy of your discharge letter.

If you have any questions about your cardioversion please contact the Cardiac Rhythm Team or Ward 32 using the contact details on the last page.

Aftercare

- You are not allowed to drive after a cardioversion. Please ensure you are driven home by someone else, or go home in a taxi. This is because you have had sedation medication which will still be in your body for sometime.
- Do not drive, operate machinery or return to work for 24 hours.
- Take your tablets as advised on your discharge letter.
- Continue to take your blood thinning (anticoagulation) tablets with no missed doses for at least 4 weeks.
- If you are taking warfarin please have another blood test (INR) within 7 days.
- The areas on your chest and back where the pads were attached may be sore, and feel like sunburn. You will be given hydrocortisone cream to take home. You can apply it up to twice a day on these sore areas, until the skin feels comfortable.

Checking your heart has stayed in normal rhythm after your cardioversion

If your cardioversion has been successful, you will need to have an ECG 4 weeks later to see if your heart has stayed in normal rhythm. This can be done at either:

- ECG Department, Glenfield Hospital (Monday to Friday, 9am to 12pm). Please bring your discharge advice letter with you.
- Your GP surgery. Please send ECG to Cardiology Audit Office, Glenfield Hospital, Groby Road Leicester LE3 9QP.

Contact details

If you have any questions or concerns about your cardioversion or aftercare, please contact:

- **Ward 32:** 0116 258 3313 / 0116 258 3731
- **Cardiac Rhythm Team:** 0116 258 3848 (8am to 4pm, answer phone available out of hours). Please note this number is not an emergency number. Depending on your symptoms please contact your GP or dial 999.
- **Your GP**
- **Your consultant**

Further information

- **Atrial Fibrillation (AF) Association**
Tel: 01789 451837 / Email: info@afa.org.uk
- **British Heart Foundation**
Tel: 0300 330 3311 / Website: www.bhf.org.uk

اگر آپ کو یہ معلومات کسی اور زبان میں درکار ہیں، تو براہ کرم مندرجہ ذیل نمبر پر ٹیلی فون کریں۔
على هذه المعلومات بلغةٍ أخرى، الرجاء الاتصال على رقم الهاتف الذي يظهر في الأسفل
જો તમને અન્ય ભાષામાં આ માહિતી જોઈતી હોય, તો નીચે આપેલ નંબર પર કૃપા કરી ટેલિફોન કરો

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Aby uzyskać informacje w innym języku, proszę zadzwonić pod podany niżej numer telefonu

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