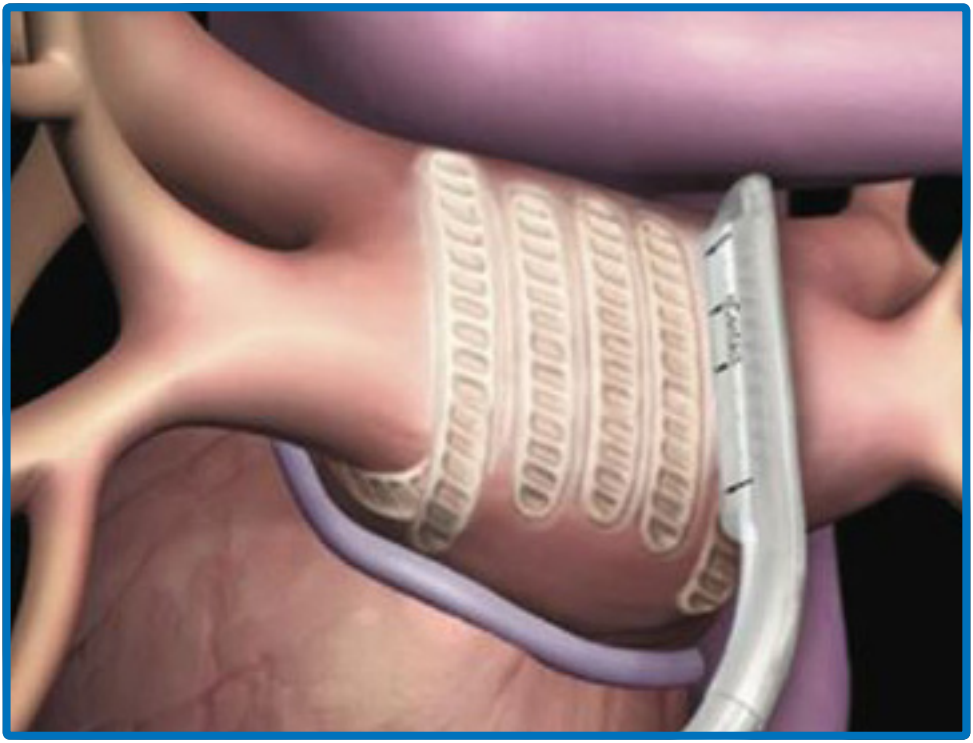
NHS
University Hospitals Bristol
NHS Foundation Trust

Patient information service
Bristol Royal Infirmary
Cardiac surgery

Convergent ablation procedure
for persistent atrial fibrillation



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What is atrial fibrillation?

During normal heart rhythm, the heart beats in an organised and controlled way resulting in regular blood flow through the heart. Atrial fibrillation (AF) is an irregular heart rhythm that occurs due to the abnormal electrical activity in the atria, which are the upper chambers of the heart.

This abnormal heart rhythm disturbs the organised heart beat and produces irregular blood flow through the heart resulting in the heart muscle not being able to relax properly between beats. This reduces the heart's efficiency and performance, and may lead to rapid, irregular palpitations, breathlessness, chest pain, light headedness and fatigue.

Some people with AF have no symptoms and may only be diagnosed when they are having investigations for other reasons.

Why do you treat AF?

The aim for treating AF is to achieve one or more of the following goals:

- managing and controlling symptoms
- restoring a normal heart rhythm
- reducing the risk of stroke

Convergent procedure

The 'convergent ablation' procedure requires both cardiac surgeons and cardiologist to work together to treat long standing persistent forms of atrial fibrillation (AF).

The convergent procedure comprises two stages:

The first stage is an operation (called surgical ablation) under general anaesthesia (where you will be fully asleep).

During this operation the surgeon will ablate (make a small burn) the outside of the back wall of the left atrium, which is the top left chamber of the heart, using radiofrequency heat, to stop the electrical conduction from that area.

This will not affect the rest of the heart. This is a key-hole procedure with only a small cut through the upper abdomen.

The first stage can be done only once.

The second stage is the endocardial ablation (ablation from inside of the heart). This procedure is performed approximately eight weeks after the first stage and performed under local anaesthesia and sedation.

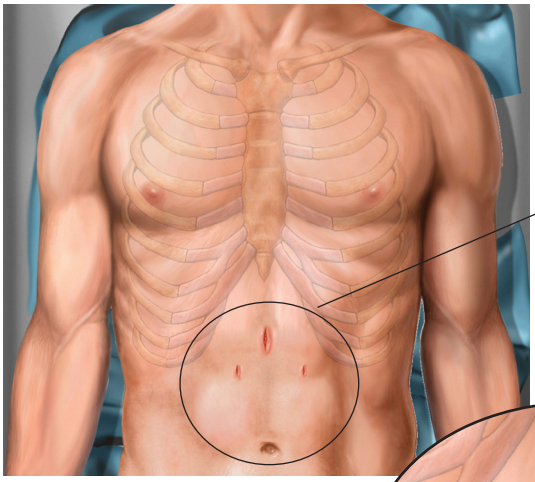
The local anaesthesia will be administered in your groin. Then one or more catheters will be inserted into a blood vessel underneath the skin, which has been numbed.

Each catheter is then passed along your blood vessels and directed to your heart, this is done with the guidance of an X ray machine.

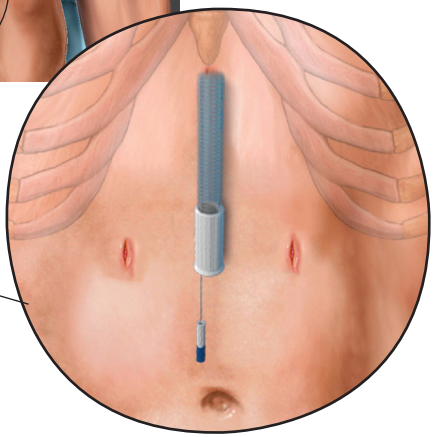
The electrophysiologist will verify the ablation work done by the surgeons and perform residual ablation if required by delivering a form of energy down the catheter wire into the heart.

One in two patients may need to undergo the second stage of the procedure again in the future.

This combined approach has higher success rates than the standard ablation treatment for patients with long standing persistent AF.



Two small and one slightly bigger incisions will be made



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Risks of surgical ablation (stage 1)

As with any procedure, this approach has risks that will be discussed with you in the clinic by both your cardiology consultant and cardiac surgeon.

Possible risks include but are not limited to:

- Diaphragmatic hernia (protruding lump on upper abdomen)
- surgical site infection
- pain

More serious complications include:

- causing an injury to the bowel on incision
- problems with blood clots that can cause stroke, heart attack, pulmonary embolism (clots on the lungs) or deep vein thrombosis (clot on the legs)
- injury to the heart, which would require an emergency open heart surgery dividing your breast bone (Sternotomy)
- may need a permanent pace maker insertion

There is less than 1% risk of fatal complications.

Risks of endocardial ablation (stage 2)

The mortality risk of catheter ablation is believed to be less than 1 in 2000 for most types of ablation. More specific risks and benefits will be discussed with you during the pre-operative assessment for the second stage procedure.

What happens before the procedure?

You will be given a date for a first pre-operative assessment with one of the arrhythmia nurse specialists where you will:

- have an opportunity to ask questions and discuss the details of the procedure and recovery.

- receive advice regarding your medication. Please do not stop your oral anticoagulation (blood thinning) until you have been advised by the arrthymia specialist nurse/cardiologist/ cardiac surgeon.

- receive instructions on fasting times.

What happens on the day of the procedure?

Your admission to the hospital for the first stage, surgical ablation, will be on the day of your operation. This will allow time to repeat any blood tests, meet with the surgeons/ anaesthetist and sign the consent form.

What to expect after stage 1

Immediately after the procedure you will be transferred to the recovery room to recover from the general anaesthetic. Once the anaesthesia wears off, you will be transferred to the ward for an overnight stay. This may be extended if there have been any concerns or complications.

The ward team will monitor your heart rate and rhythm, blood pressure, oxygen levels and pain, administering further pain relief medication to ensure you are comfortable and recovering well.

It is normal to have chest pain after the procedure and you should take regular painkillers for three to five days after the operation.

On discharge

- You should avoid heavy lifting and strenuous exercise for two weeks.
- DVLA guidelines advise no driving for two days following general anaesthesia.
- Your surgical ablation wound may take up to two weeks to heal. The ward team will notify you, if there are any sutures that need to be removed by your GP.

Stage 2: endocardial ablation

You will then receive a second pre-operative assessment four to six weeks after the surgical ablation, where you will meet the arrhythmia nurse specialists for a review of your surgical wound.

The second stage procedure (endocardial ablation) will be discussed in detail. This is run alongside your cardiac surgeon's clinic to enable them to review any post-procedure complications. We do not routinely stop the oral anticoagulation for the second stage. For any concerns, contact the helpline.

What are the alternative treatment options available for AF?

If you would like to consider the alternative treatment options, you will have the opportunity to discuss this with your cardiologist/cardiac surgeon.

How to contact us

Any questions or concerns please ring:

Arrhythmia nurse helpline on **0117 342 6635**

Please note this is not an emergency service

If you think that your problem constitutes a medical emergency you should attend the nearest emergency department urgently.

Notes

Please note that if for any reason you would value a second opinion concerning your diagnosis or treatment, you are entirely within your rights to request this.

The first step would usually be to discuss this with the doctor or other lead clinician who is responsible for your care.

Smoking is the primary cause of preventable illness and premature death. For support in stopping smoking contact **NHS Smokefree** on **0300 123 1044**

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For an interpreter or signer please contact the telephone number on your appointment letter.

For this leaflet in large print or PDF format, please email patientleaflets@uhbristol.nhs.uk.

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