



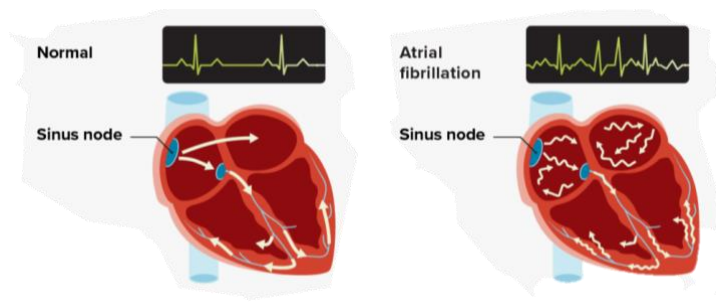
Atrial Fibrillation Ablation

This patient information leaflet is intended to provide general information about Atrial Fibrillation ablation and post-operation care. It is not a substitute for medical advice. Please talk to your doctor about any questions you may have.

What is Atrial Fibrillation ?

Atrial fibrillation (AF) is the most common heart rhythm abnormality worldwide. AF is an irregular heart rhythm that originates in the top chambers of the heart called the atria. During AF, the electrical impulses of the heart do not start in the normal area. Instead, the electrical impulse starts from many different areas of the atria and spreads out in a chaotic manner, which causes the heartbeat to be irregular and disorganized. The junction connecting the pulmonary veins into the left atrial chamber is the commonest site hosting the substrate that gives rise to this chaotic AF electrical impulses.

A few health conditions can be associated with AF. These include high blood pressure, sick sinus syndrome, congestive heart failure, cardiomyopathy, valvular heart disease, congenital heart defects, and thyroid disorders. AF can occur at any age but is much more common with older age and tends to affect men more commonly than women.



Different kinds of atrial fibrillation

The Heart Rhythm Society defines several different forms of AF:

- Paroxysmal: AF is intermittent
- Persistent: AF does not spontaneously go away, and cardioversion is required to restore sinus rhythm
- Permanent: Doctors have decided to leave the patient in AF and to just control the heart rate



How does AF affect your quality of life?

Symptoms of atrial fibrillation present differently in different people.

Some people have few to no symptoms, while others are aware of the exact moment they go into AF. Many patients report feeling heart pounding, dizziness, shortness of breath and chest pain. Inability to exercise to pre-AF levels and fatigue are also common symptoms.

AF is often a progressive arrhythmia. This means that episodes of AF may change from happening occasionally to happening all the time. This progression is often associated with worsening symptoms, making it hard for some people to do their daily activities.

Many people may find it quite stressful to have AF because episodes can be very unpredictable and can occur at almost any time. Patients may be afraid to travel and attend social events for fear of having AF.

What is the best way to manage your AF?

The appropriate treatment goals for AF depend on the patient's age, the presence or absence of other heart disease and patient symptoms. In general, there are four pillars in the treatment strategy for managing:

Pillar 1 - Anticoagulation: Preventing blood clots from forming in the left atrium is important to prevent strokes in the setting of AF. This is best achieved by taking medicine, usually aspirin or warfarin depending on the risk factors of the patient.

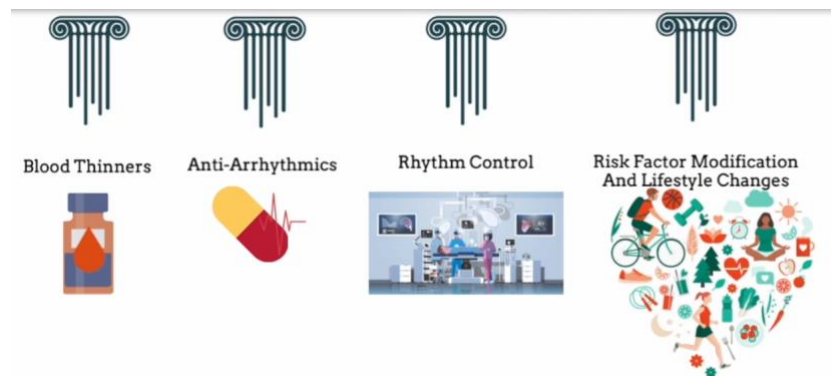
Pillar 2 - Rate controlling strategy: Several different medications can be used to help control the heart rate. This is important because very fast, uncontrolled heart rates can weaken the heart muscle and cause heart failure.

Pillar 3 - Rhythm controlling strategy: Attempting to maintain the heart in a normal beating pattern (normal sinus rhythm) can be done by either chemical or electrical cardioversion, and possibly antiarrhythmic drug therapy.

Medications can control AF, like how high blood pressure can be controlled with medications, however, medications cannot be expected to cure AF. In other words, treating AF with medications requires continuation of the medications indefinitely.

Ablation therapy is the only treatment that offers the potential to remove areas of “rogue” tissue fast firing causing this arrhythmia. All other therapies are temporary ways to control AF over the short term.

Pillar 4 - Lifestyle modification: Risk factor modification including optimum blood pressure control, cholesterol profile and blood sugar control is key. Diet, Weight Loss, Exercise and Healthy Eating alongside mindful breathing and body postures can help contribute towards symptom burden improvement.



How is AF treated?

We can often improve symptoms and reduce the arrhythmia /palpitation burden by carefully damaging (disrupting) your heart muscle at the junctions of the pulmonary veins and left atrium. To do this, we thread a very thin ablation wire into your groin and guide it up to the left atrium of your heart. The end of this wire can be heated, frozen or magnetised to cause tissue damage. We access the left atrial chamber by making a tiny hole between the right and left atrium. This hole seals by itself following the procedure. Your doctor will discuss related risks with you before your procedure.

Why do I need this procedure?

Catheter ablation is recommended in patients where symptoms have not responded to an anti-arrhythmic medication or when patients cannot tolerate medications. It is not an alternative to medication as you may still have to take medications following the procedure. The current guidelines in Europe, UK and US advocate the ablation strategy sooner to help continue maintain sinus regular heart rate for longer in patients with paroxysmal atrial fibrillation (PAF). The longer the heart is exposed to irregular rhythm the harder it eventually becomes to get rid of it later on due to heart remodeling.

What are the risks?

Before having your procedure, please feel free to discuss any concerns with the doctors or nurses.

Potential procedural risks include:

- Damage to your groin or a blood vessel.
- Bleeding from your groin or around your heart.
- Stroke or heart attack.
- Need for a pacemaker.
- Severe narrowing of veins in your lungs.
- Damage to the nerve that makes your diaphragm work.
- Damage to your oesophagus (gullet).
- Recurrence of AFib



Risk resulting in death is rare. If an emergency happens during the procedure, we will do whatever is possible to treat it. Although extremely rare, emergency treatment could include open-heart surgery.

What are the benefits?

The aim is to reduce AF related symptoms and improve quality of life. Often, patients may require more than one procedure to achieve this.

Are there any alternatives?

Pace and ablate strategy. In this alternative approach, a pacemaker is implanted to act as back up to allow then the uptitration of medication to a high dose. If the medication higher doses are insufficient or cause side effects, then an ablation of the AV-node, the central connection between the two atria and ventricle can be performed. This leaves the heart function taken over by the pacemaker and becomes dependent on the pacemaker to continue pumping. Often this is the last resort or if the AF has been on-going for a long time resulting in heart chamber remodelling.

Will I have to stay in hospital?

You may need to stay in hospital overnight after the procedure.

What to Expect Before the Procedure

The patient may be asked to have some blood tests, an echocardiogram and sometimes either a cardiac CT scan or cardiac MRI scan.. The CT scan will determine the size and number of pulmonary veins and confirm the absence of clot in the heart.

Pre-operative instructions are individualised according to the clinical judgment of Dr Arujuna in discussion with the patient. If the patient is not already taking a blood thinning medication Dr Arujuna always prescribes one prior to the procedure.

During the ablation the patient will be under a general anaesthetic.

Eating and drinking: Do not eat or drink for at least eight hours before your procedure. You may take any tablets with a few sips of water.

Preparing for your procedure

When you arrive at the cardiac catheter suite, we will give you a hospital gown to wear and will put a needle (cannula) into a vein in your arm. We will use this to take some blood and give you fluids if required. You will be taken into the cardiac catheter laboratory and meet the team looking after you.

This consists of Dr Arujuna, electrophysiologist (a consultant who specialises in heart rhythm problems), a cardiac physiologist, a radiographer, a nurse, and the anaesthetic team.



What happens during the procedure?

This procedure is normally performed under general anaesthetic. Once you are asleep, the electrophysiologist will insert small plastic tubes (cannula's) into blood vessels at the top of your legs (your groin). The wires used to record electrical signals will then be advanced through the cannula into the heart. Wire navigation is guided by x-ray equipment. Once the wires are in the right place, your doctor will look at your heart rhythm disturbance by recording the electrical signals on a computer. The ablation is done using radiofrequency energy, which heats the tip of one of the wires in your heart and damages (disrupts) the problem area. The alternative energies are Cryoablation – freezing the tissue or Pulsed Field Ablation – magnetic field applied to disrupt cardiac tissue only.

How long does the procedure take?

If this is a first time procedure and the targets are only the pulmonary veins, one can anticipate at most a 2- hour procedure, often shorter. If it is a re-do procedure, this depends on the targets intended to be treated and can vary between two and four hours.

What happens after the procedure?

The wires and tubes will be taken out and you will spend a few hours recovering on the ward. You will lie flat for between two to four hours following the procedure.

You may have some discomfort in your groin where the catheters were inserted. You may also experience some irregular heartbeats, but this is usually normal and will improve over time. If there is no bleeding from the groin, we will allow you to sit for a further two hours. If all has gone well, you will be able to walk four hours after the procedure.

During the first four hours after the procedure, you will be attached to a heart monitor and regular checks of your blood pressure and groin will be carried out. Dr Arujuna will come and discuss the outcome of your procedure and check your recovery.

You will have an ECG which will be reviewed by your doctor. You will be advised on any medication changes on discharge.

What happens when I go home?

Going home: You must have someone to collect you from the ward. We do not advise using public transport.

Driving: The DVLA states that you must not drive for two days after this procedure.

Pain and bruising: You may have some chest discomfort for up to one week after the procedure. You may also have some bruising in your groin which will take a few days to ease.

Tiredness: It is normal to feel tired for some time after the procedure.



Medications: Keep taking your medications as normal, unless instructed otherwise.

Activity : Resting for a few days, Not lifting heavy objects, Avoiding strenuous activity for a week.

Going back to work: It is advisable to take one week off work following the catheter ablation.

Follow-up appointment: You will be reviewed in the outpatient/telephone clinic once at 4-8 weeks and a second time point at around six months after the procedure.

Will I still have any symptoms?

You may continue to have some AF for a while after having the ablation, but this does not necessarily mean that the procedure has failed. However, some patients will need to have the procedure more than once. It can take a while for your heart to settle down after the ablation and for us to know how successful it has been. The first three months is usually taken as the blanking period and as the injured tissue of the heart heals, rhythm disturbance can occur before it settles.

We usually request you to have a portable heart monitor fitted as an outpatient after the ablation.

If your heartbeat remains irregular, it is important to try to have an ECG when this is happening. You can have one at your GP surgery or in the Emergency Department (A&E). If you have these symptoms, please call us to book a clinic appointment.

Who can I contact with queries or concerns?

If you have any general queries or concerns about this procedure, contact the care team. Please leave a message and they will return your query as soon as possible.

Tel: 07538385325 9am to 5pm, Monday to Friday

Email: careteam@avahealth.life

Useful sources of information

- www.atrialfibrillation.org.uk
- www.arrhythmiaalliance.org.uk
- www.bhf.org.uk

