

AV Node Ablation

AV nodal ablation is a procedure performed for patients who have a permanent pacemaker and have atrial fibrillation that has either not been successfully controlled with medication, or the medications is causing side effects.

The procedure aims at destroying the hearts natural electrical connection between the top and bottom chambers, rendering patients dependent on the permanent pacemaker. This treatment allows doctors to stop the medications that were unsuccessful at controlling the atrial fibrillation. The patient is left with a perfectly regular heart rhythm.

The atrium is still in atrial fibrillation following this, so anticoagulation does need to continue.

In recommending this procedure, your doctor has made has determined that on balance, the benefits and risks of the procedure outweigh the benefits and risks of not proceeding. As such, your doctor believes there is a net benefit to you going ahead and that the procedure should be successful overall.

Symptoms

AV node ablation usually takes place to manage symptoms of AF once a pacemaker has been inserted. Many patients report experiencing symptoms such as:

- Light-headedness
- Dizziness
- Chest pains
- Pounding heart or palpitations
- Rapid breathing
- Shortness of breath

What are the risks involved in an AV node ablation?

As with all procedures, AV node ablations carry their own risk profiles that can range from common occurrences, through to uncommon and rare instances. All Risks should be taken into consideration when considering an AV node ablation to determine if the procedure is an appropriate treatment option for yourself during consultation with your treating cardiologist.

Common risks and complications can include but are not limited to:

- Bruising to the surgical access site/puncture site and surrounding tissues that can take weeks to months to heal completely in some instances.
- Minor chest discomfort for up to a week or two following

Uncommon risks and complications can include but are not limited to:

- Blood pooling around the heart (tamponade) that requires immediate drainage or surgical intervention in extreme cases.
- Damage to an artery in the groin that can require repair in some cases.

What Can I expect during the procedure?

Once checked into hospital for your procedure, you will be taken through an admission process where a detailed medical history is taken, preprocedural blood tests are collected and your body is prepared by shaving off any hair to your groin, chest and back. This is undergone to ensure a sterile surgical field can be created to reduce any chance of infection and ensure that any cardiac mapping pads or electrodes can be appropriately placed on your chest or back in a way that is both effective for use and easy to comfortably remove.

You will then be taken to the anaesthetic holding bay where your anaesthetist will discuss their part in the procedure, your airway management process (as general anaesthetic is required) and discuss any queries or concerns you may have prior to the introduction of any medications. Upon entering the cardiac catheter laboratory, you will be prepared for your procedure by the cardiac scientists who will position you on the table and apply mapping pads, defibrillation pads and various electrodes to your body prior to anaesthetic administration.

At the commencement of the procedure once you have been anaesthetised and surgically prepared by the staff assisting with the procedure, the doctor will insert a small access sheath into your right groin under ultrasound guidance before passing a catheter up through your femoral vein and into the right atrium of the heart. This is performed under x-ray guidance.

Once the catheter has been advanced into position, a series of electrical measurements are taken to pinpoint the exact location of the AV nodal junction to be targeted by ablation.

When the doctor and the cardiac scientists are satisfied with the location of the ablation catheter, radiofrequency energy is delivered and an area of scar is created to block the transmission of any intrinsic electrical signals between the hearts top and bottom chambers.

The entire procedure is generally reasonably quick, taking around 30 minutes to complete in most cases. At the completion of the procedure, the catheter is withdrawn and manual pressure is applied to the access site to prevent any bleeding. The patient is then awoken from their anaesthetic and transferred to the post anaesthetic recovery area for observation. Once the catheters have been removed, patients generally must remain flat without moving their hips/legs for up to 2-4 hours depending on whether they experience any bleeding postoperatively. Provided no complications are observed, patients are generally discharged a few hours later once the recovery process is complete or the following.

Before Your Procedure

It is important that you fast prior to your procedure in line with your anaesthetists' instructions. Generally, a fast time of 6 hours for solid food and 2 hours for water is required in order to prevent any complications with the use of anaesthesia during your procedure.

For patients taking Ozempic, Trulicity, Saxenda, Wegovy or Mounjaro, the anaesthetic guidelines require you to continue your medication as normal, commence a clear fluid diet 24 hours prior to your procedure and completely fast for 6 hours immediately prior to your procedure to minimise the potential for anaesthetic related complications.

Note: Clear fluids includes water, apple juice, broths, black coffee and black tea. Any non-transparent fluids such as milk, smoothies, juice containing pulp or soups are not considered clear fluids and can cause a delay in your procedure time if consumed.

After Discharge Process

Prior to discharge from hospital, patients are advised of any changes to their regular medications by their discharging doctor and advised of their follow up process. This usually consists of an in-clinic appointment with a pacemaker device technician and Dr. If you are unsure if an appointment has been made, please contact the clinic to confirm a date and time for review.