

# AV Node Ablation

Vancouver General Hospital  
Atrial Fibrillation Clinic

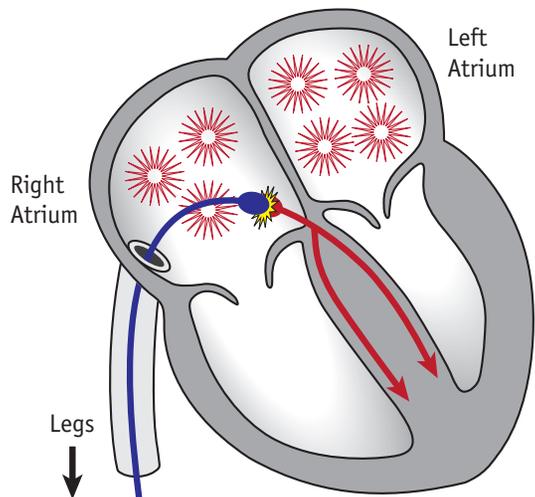
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## What is this procedure and how might it help you?

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Some patients with atrial fibrillation have heart rates that are very difficult to control with medication. This may cause some very severe symptoms. Ablation of the AV node and implantation of a permanent pacemaker are another approach.

The AV node is the electrical connection (wire) between the atria (top chambers) and the ventricles (bottom chambers) of the heart. By disrupting the connection between the atria and the ventricles, electrical impulses from the atria can no longer make it to the ventricles to affect the ventricular rate. Without this connection the heart beats at a slow rate. A pacemaker is used to increase this rate, and will be implanted first before your AV node ablation. Patients will no longer experience symptoms such as palpitations, racing heart, chest discomfort, dizziness or fatigue that were caused by atrial fibrillation. Your atria will still be fibrillating, the impulses are just not making it to your ventricles. This means that your risk of stroke remains the same as before the procedure and you need to continue to take blood thinner(s) to reduce your risk of stroke.



## What are the risks of this procedure?

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This is a safe procedure and done routinely. Complications associated with this procedure are very low.

### Commonly experienced symptoms after ablation

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- Your leg may be tender for about 4-5 days
- You may develop a small bruise or bleeding at the upper leg site. This usually improves with some direct pressure over the area.
- You may have some chest discomfort for a few days when you breathe or lay down. This is from irritation in the sac that surrounds your heart. It usually improves with “over the counter” pain medication such as acetaminophen (Tylenol™).

**Like any interventional procedure there are a number of uncommon complications that may occur as a result of this procedure. Your physician will go over this in detail with you and will be able to answer any of your questions or concerns. We make every effort to reduce your risk of these complications and continue to be aware of state of the art improvements to reduce your risk.**

## Getting ready for your AV Node Ablation Procedure

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**Location:** Vancouver General Hospital, Heart Services #7 (located on the Ground Floor) Jim Pattison South Pavilion, 899 West 12th Avenue, Vancouver, BC

**Length of procedure:** approximately 1.5 hours (varies for each patient).

### How do I prepare for the procedure?

The procedure is done in the hospital with conscious sedation. You usually go home the same day.

#### Before the procedure:

- You may be instructed to make changes to your blood thinner medication(s) for this procedure. You will receive these instructions around the time your procedure is booked.
- Do not eat or drink anything after midnight and the morning of the procedure.
- You can take your regular medications as you normally would with a sip of water in the morning of the procedure unless directed otherwise.
- Bring a list of all your medications with you.
- Have a shower/bath the morning of or night before your procedure. Do not apply any lotions or creams to your chest or back as these may interfere with placement of the monitoring equipment.
- You are not allowed to drive yourself home after receiving sedation/anesthesia. Therefore, you need to arrange a ride home that day.
- For the remainder of the day, you should not operate a car, heavy machinery or make any important decisions, because you will remain impaired.
- If, possible, leave all jewellery or valuables at home or with a family member.

## What happens before and during the procedure?

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#### On the day of the procedure:

- You will be given a hospital gown to change into and asked to remove all other clothing and any jewellery.
- Blood samples will be drawn and an electrocardiogram (ECG) may be done.
- A pregnancy test will be given to female patients.
- Your doctor will ask you to give written consent for the procedure.
- Electrode pads to monitor your heart will be put on your chest. (Nursing staff will decide if they need to shave the area.)
- An intravenous (IV) line will be placed in your arm vein so the anaesthetist can give you medication during the procedure.
- You will be given oxygen through a mask or a plastic tube in your nose.
- The skin on your groin (upper thigh) will be shaved and cleaned with antiseptic solution.
- You will be covered with a sterile drape from your neck down to your feet.
- Once you are sedated, your doctor will freeze the skin in the groin and shoulder area with local anaesthetic.
- Your doctor will insert small catheters (tubes) into the vein at the top of your right groin. These tubes allow your doctor to pass the special catheters into your heart to the AV node. Once the catheter is at the AV node, the physician interrupts the heart's electrical pathway to try and stop the arrhythmia from making the heart beat fast and irregular.
- Once this is done, your doctor will remove all the catheters from your heart and groin then apply pressure to the groin to stop the bleeding.

## What happens after the procedure?

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### In the hospital:

- Your heart rate and blood pressure will be monitored and your groin site will be observed for 2 hours.
- You will be asked to lie flat and keep your legs straight to prevent bleeding in your groin.
- You may be given a small dose of blood thinner injected just under your skin.

### When you go home:

- Continue to take your heart medications including the blood thinner as prescribed.
- If you are a patient of the Atrial Fibrillation (AF) clinic:
  - You can contact the AF clinic during office hours, regarding a follow-up appointment or if you have any questions or concerns call: 604-875-5264.
  - The nurse from the AF clinic will call you in 3-7 days after your procedure and will arrange a follow-up appointment for you.
- If you do not attend the AF clinic, call your cardiologist to arrange a follow-up appointment approximately 1 month after your procedure.
- You may remove the bandage from your right groin in 2 days.
- If bleeding occurs at the puncture sites:
  - lie on your back.
  - put pressure directly on the site with your fingers using a clean dressing or towel for at least 10 minutes until the bleeding stops.
- If the bleeding is heavy or persists, keep pressure on the site and go to the nearest emergency department.
- It is normal to have a bruise at the puncture sites. The skin may become purple or yellow and maybe tender. If the thigh or groin swells, becomes painful, or hot to touch, please contact the nurse at the AF clinic. If out of clinic hours, go to the nearest emergency department.
- Call your family doctor if you notice redness, swelling at the puncture site.
- You can take a shower the day following your ablation. Avoid taking a bath for 3 days upon your return home.
- Many patients experience chest pain for a few days after the procedure. This chest pain is most common while taking a deep breath. You may take some acetaminophen (Tylenol™) if needed. Contact your doctor or call the AF clinic if this does not relieve the pain or if the pain continues more than a few days. You can also have an anti-inflammatory prescribed if acetaminophen does not work.
- Contact the AF clinic if you experience pain with swallowing, fever (higher than 38°C), worsening shortness of breath or chest pain beyond the first few days. If out of hours, go to the nearest emergency department.
- 1 to 2 months after your procedure you need to have your pacemaker reprogrammed at your pacemaker clinic.

# You need to get immediate medical help if you experience

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- Sudden severe shortness of breath
- Sudden loss of strength in an arm or leg, even temporary
- Trouble speaking or understanding
- Vision problems
- Sudden severe headaches
- Sudden loss of balance

You will need to continue to take blood thinners but may be able to reduce or stop some of the heart rhythm medications after your heart heals. The staff in the clinic or your electrophysiologist will discuss this with you further after your procedure.

**Activity Instructions:** Do not drive for 48 hours. Increase your walking daily, but wait 10 days before attempting vigorous exercise.

**Returning to Work Instructions:** This depends on what kind of work you do. In general, patients can return to work in 4-7 days. If your work involves a lot of physical activity or if your symptoms are worsening, you may need a longer period of rest.

**Remember that after your procedure, your atria is still fibrillating, the impulses are just not making it to your ventricles. This means that your risk stroke is the same as before the procedure and you need to continue to take blood thinner(s) to reduce your risk of stroke.**

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