



# Ablation for Atrial Fibrillation

## What is an ‘ablation’?

Ablation (sounds like *ah-blay-shun*) is a medical procedure used to correct certain heart rhythm problems, such as atrial fibrillation. It restores the normal regular rhythm of the heart by scarring the tissue in the heart that triggers the abnormal rhythm. This allows the heart to return to normal, regular rhythm.

## Why is it done?

In atrial fibrillation (AF), the electrical signals in the upper chambers of your heart (atria) become irregular and very fast. This causes the atrial muscles to quiver (or fibrillate) instead of pumping efficiently. Some of these chaotic electrical signals get through to the bottom chambers of the heart (ventricles), making your heart beat irregularly and fast.

An irregular and fast heart beat can cause you to feel a fluttering or thumping in the chest (palpitations), a racing heart, short of breath, dizzy, extremely tired all the time, and even chest pressure or pain.

## In treating atrial fibrillation, the goal is to:

- ♥ Prevent or control the irregular heart rhythm
- ♥ Reduce your symptoms
- ♥ Reduce the number and amount of medication you take
- ♥ Improve your quality of life

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The first step in treating atrial fibrillation is usually a trial of medications.

## Ablation is an option for people who:

- ♥ Do not respond to the medications.
- ♥ Cannot tolerate the side effects of the medications.
- ♥ Continue to have troublesome symptoms even with medication.

## How is it done?

A heart doctor (cardiologist) who specialized in the heart's electrical system and timing (a cardiac electrophysiologist) does the procedure in a special room in the hospital called the Electrophysiology Lab. It does not involve surgery.

The procedure can take 2 to 4 hours. You are given medicines so that you are not awake during the procedure. This means you will not feel anything nor will you know what is happening.

You usually go home the same day.

To do the ablation, long, thin, flexible tubes (called catheters) are inserted into a blood vessel (usually a vein) in your groin. The catheters are guided up into your heart using x-ray. The catheters are used to locate the abnormal heart tissue responsible for your irregular heart rhythm.

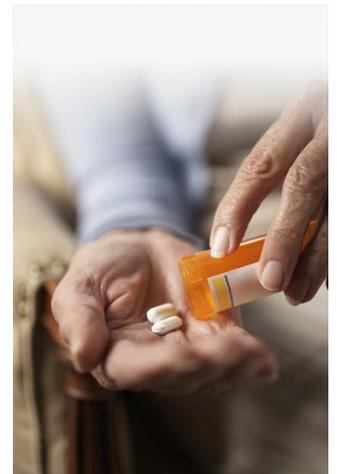
Once located, a special catheter is aimed at the abnormal heart tissue. Energy is directed at the tissue. This disrupts or destroys the tissue triggering your abnormal heart rhythm. The tissue becomes scarred and can no longer create abnormal electrical signals.

## Are there any risks?

Ablation is a relatively safe procedure and is performed routinely. However, as with any medical procedure, there is a small chance of a complication.

### Although rare, complications can include:

- ♥ Significant bleeding or damage to the blood vessel in the leg where the catheter enters the skin (1%)
- ♥ Blood clots causing heart attack or stroke (1%)
- ♥ Puncture through the heart wall resulting in fluid leaking out and building up around the heart (1%)



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- ♥ Transient injury to one of the nerves that control your diaphragm, causing breathing problems (1%)
- ♥ Narrowing of any one of the blood vessels that brings blood back to your heart, called pulmonary vein stenosis, resulting in shortness of breath (less than 1%)
- ♥ Injury of the food pipe connecting the mouth to the stomach (the esophagus), which lies behind the heart (1 in 2000)

Complications that threaten life are possible, but rarely happen (about 1 in 1000).

Your doctor would only recommend you have an ablation if they feel the benefits to your health outweigh these small risks.

## What can I expect before and after?

### Preparation for the procedure

The doctor performing your ablation will give you a date, time and location for your procedure.

- ♥ You will need to take your blood thinners as directed by the electrophysiologist.
- ♥ You must arrange for someone to pick you up **and** to stay with you for at least 24 hours after the procedure.
- ♥ You cannot drive or travel alone for 24 hours after the procedure. You should also defer any important decision or signing of legal documents during this time. The after effects of the medicine given to keep you asleep during the procedure can make it hard for you to think clearly and react quickly.
- ♥ The electrophysiologist or hospital will give you more detailed instructions.
- ♥ If you do not speak or understand English well enough for medical conversations, either bring someone with you to interpret, or have someone call the location for the procedure and arrange for a medical interpreter.

*The numbers in brackets indicate the chances of this complication happening. For example, 1% means one person for every 100 getting the procedure. The smaller the percent, the rarer the complication.*



## During the procedure

- ♥ An intravenous (or I.V.) is placed in one of your arms so they can give medicine during the procedure. To place the I.V., a small flexible tube is inserted through your skin into a vein in your arm.
- ♥ You are attached to heart, blood pressure, and oxygen monitors.
- ♥ Your skin is prepared. Certain areas might need to be shaved to allow heart monitor pads to stick to your skin.
- ♥ Numbing medicine is injected to ‘freeze’ the skin where the catheters enter your body (called the insertion site).
- ♥ An anesthesiologist gives you medicine so you are not awake during the procedure.
- ♥ A small ultrasound probe might be put down your esophagus. This probe allows the doctor to see the structures of your heart as well as to look for blood clots within your heart during the procedure.
- ♥ The electrophysiologist inserts the long thin catheters into a large vein in your groin (sometimes in the left shoulder as well). The doctor guides the catheters into your heart using an x-ray screen.
- ♥ Tiny wires threaded through the catheters are used to locate the tissues causing the abnormal heart rhythm. If needed, a catheter is put through the wall between the right and left side of the heart to reach the upper left chamber. The tiny hole heals after the procedure.
- ♥ Once in position, the catheters are used to locate the tissues causing the abnormal heart rhythm. Then, the energy is used to destroy these abnormal cells.
- ♥ Afterwards, the catheters are removed. Pressure is put over the insertion site to control any bleeding. A bandage is placed over the insertion site.

*An anesthesiologist (sounds like ah-nas-the-zee-all-oh-jist) is a doctor who looks after people during procedures or surgeries, keeping them relaxed, ‘asleep’, and free of pain using different medicines.*

*The upper left chamber or atrium is a common source of abnormal electrical signals.*

## After the procedure

You are moved to the recovery area where you are closely monitored for several hours.

During this time:

- ♥ You rest in bed.
- ♥ You lie flat, keeping your leg straight to prevent bleeding from the insertion site.

- ♥ You might feel groggy, sick to your stomach, or have a headache. This can be from the medications given to keep you asleep during the procedure.
- ♥ Once fully awake, you can drink fluids and eat.

Most people go home the same day. Some people stay in the hospital overnight.

## Going home

Before you leave the hospital, you get instructions on how to care for yourself at home, what to watch for, and who to follow up with afterwards.

The person staying with you for the first 24 hours should be there to hear the instructions.

Continue to take your heart medications as prescribed. It is important that you do not miss a dose of your blood thinner.

Bruising, soreness, and some swelling around the insertion site is normal and heals with time.

You might notice some mild burning or discomfort in your chest. This is common and goes away in a few days. It can be treated with pain medicine such as regular acetaminophen (regular Tylenol).

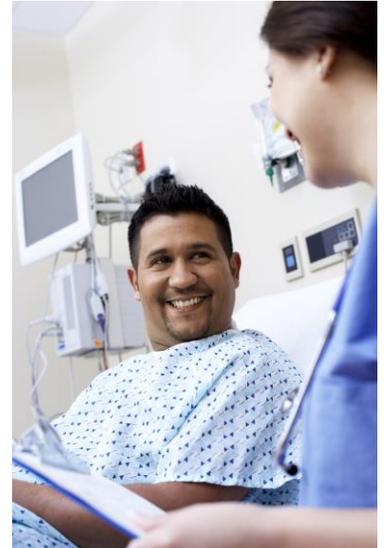
Your doctor might ask you to take a medicine to reduce stomach acid. Usually you take it for a month after the procedure. This helps protect your esophagus from ulcers.

You might notice short episodes of an irregular heart beat for the first few weeks after the procedure. This is from the heart tissue swelling as a natural reaction to injury. It should go away as the heart tissue heals.

## When should I get help?

Call your Atrial Fibrillation Clinic\*\* or the electrophysiologist who did the procedure if you have any of the following:

- ♥ An episode of atrial fibrillation that lasts for 24 hours, or makes you feel unwell or uncomfortable when resting.
- ♥ Pain with swallowing.



*Continue to take your heart medications as prescribed. It is important that you do not miss a dose of your blood thinner.*

- ♥ Heartburn.
- ♥ A fever over 38°C (100°F).
- ♥ Redness and swelling, and feel warmth around the insertion site (signs of infection).

\*\* After hours, go to the nearest hospital emergency department.

**Call 9-1-1** or have someone take you to the nearest emergency department if you have any of the following:

- ♥ Any of the above symptoms get significantly worse.
- ♥ You feel extremely unwell.
- ♥ You are very short of breath, even when sitting still.
- ♥ You have really bad chest discomfort or pain.
- ♥ You can't stand up because of feeling lightheaded.
- ♥ You have fainted.
- ♥ You have signs of a stroke, or a mini-stroke.
- ♥ You notice bright red bleeding and/or severe swelling at the insertion site.

While waiting for the ambulance, put firm pressure over the insertion site. Hold the pressure, or have someone hold it for you, until the emergency personnel take over.

## Medical care by another doctor or in the emergency department:

It is very important to tell doctors you had an atrial fibrillation ablation.

For 2 months after the procedure, do not allow anyone to put anything down your esophagus. This includes procedures such as a trans-esophageal echocardiogram (T.E.E) or a gastroscopy.

## If you have questions or concerns:

- ♥ Call your heart doctor or family doctor.
- ♥ Call your Atrial Fibrillation Clinic.
- ♥ Call HealthLink BC at 8-1-1 any time of the day or night to speak to a registered nurse.





# Cardiac Services BC

An agency of the Provincial Health Services Authority



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