

# Ablation for Ventricular Tachycardia

# What is an 'ablation'

Ablation (sounds like ah-blay-shun) is a medical procedure used to correct certain heart rhythm problems, such as ventricular tachycardia (VT). 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 ventricular tachycardia (VT), the electrical signals that start in the lower chambers of your heart (ventricles) are very fast. This causes the heart to beat too fast.
- There are different types of VT. It can affect people with normal hearts and also people with sick hearts, such as those who have had previous heart attacks.
- Some types of VT can cause mild symptoms such as a thumping in your chest (palpitations), a racing heart, shortness of breath, dizziness or feeling faint.
- In others, especially those with sick hearts, VT can be life threatening and lead to the heart being unable to pump blood (cardiac arrest). Most people with sick hearts and VT will have an implantable cardioverter-defibrillator (ICD) implanted.

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#### In treating ventricular tachycardia, the goal is to:

- Prevent or control the abnormal heart rhythm
- Reduce your symptoms
- Reduce the need for heart rhythm medications
- Improve your quality of life

Ablation is usually offered to people with ventricular tachycardia who do not respond to medications or who continue to have troublesome symptoms despite medication. Some patients who have an implantable cardioverter-defibrillator (ICD), may need a VT ablation to help reduce the number of shocks from their ICD.

### How is it done?

- A heart doctor (cardiologist) who specialized in the heart's electrical system (a cardiac electrophysiologist) does the procedure in a special room in the hospital called the Electrophysiology Laboratory. It is a minimally invasive procedure and not an open surgery.
- The procedure can typically take 3 to 6 hours. The ablation procedure is usually performed while you are sedated. A general anesthetic is required in some cases. Medications are given to make sure that you are comfortable during the procedure.
- To do the ablation, a long, thin, flexible tube (called a catheter) is inserted into a blood vessel in your groin. The catheter is guided up into your heart using x-ray. The catheter is used to locate the abnormal heart tissue in your lower heart chamber(s) responsible for your ventricular tachycardia.
- Once located, a special catheter is aimed at the abnormal heart tissue and energy is directed at the tissue to disrupt or destroy it. The tissue becomes scarred and can no longer create abnormal electrical signals causing the abnormal heart-beats or arrhythmia.
- Some people go home the same day, others, particularly those with sicker hearts, need to stay in the hospital overnight.
- If you live far away from the hospital where the procedure is done (>1 hour away by car), it is usually recommended that you plan to stay near the hospital for 1-2 nights after you are discharged.



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### 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. The risks of a VT ablation procedure depend on how healthy your heart is and the type of VT being treated.

It is important to ask your electrophysiologist about the risks of VT ablation in your specific situation.

#### Although rare, unexpected complications can include:

- Significant bleeding or damage to the blood vessel in the leg where the catheter enters the skin (1-3%)
- Blood clots causing heart attack or stroke (1-3%)
- Puncture through the heart wall resulting in fluid leaking out and building up around the heart (1-2%)
- Damage to the heart's electrical system which could result in needing a permanent pacemaker implant (<1%)</li>

The successful treatment of VT with an ablation procedure depends on the type of VT you have and the health of your heart.

- If you have a normal or healthy heart, there is an 80-85% chance the VT can be eliminated with one VT ablation.
- If you have a complicated type of VT and/or a sicker heart, there is a 40-70 % chance the VT can be eliminated.
- Sometimes, VT starts deep in the heart muscle. This may mean your cardiologist may not be able to eliminate it with an ablation.

Your doctor would only recommend you have a VT 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.

- Always bring your BC Services Card (or Care Card) plus a list of the medications you are currently taking to every appointment <u>and</u> the day of your procedure.
- You must arrange for someone to pick you up <u>and</u> to stay with you for at least 24 hours after the procedure

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



- You cannot drive or travel alone for 24-48 hours after the procedure. You should also defer any important decisions or signing of legal documents during this time. The aftereffects of the medicine given to make you comfortable 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 as to how to take your medications before the procedure. Certain medications (like blood thinners and diabetic pills) might need be adjusted. It is important to review these instructions carefully and take medications as directed.
- 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.

#### 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.
- Sometimes patients need an additional IV type catheter placed in their wrist to monitor blood pressure continuously during the procedure.
- 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.
- A special computer mapping system is used to guide the procedure. Multiple patches will be placed on your chest and back.
- Numbing medicine is injected to 'freeze' the skin where the catheter enters your body (called the insertion site).
- An anesthesiologist gives you medicine to sedate you so you are comfortable during the procedure.
- Your electrophysiologist inserts a long, thin catheter into a blood vessel in your groin. The doctor guides the catheter into the lower chamber of your heart using an x-ray screen.
- Once the tissues causing the abnormal rhythm are located, 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 stitch (called a suture) may be used to close the small hole in your groin to help minimize bleeding. A bandage is placed over the insertion site.

An anesthesiologist (sounds like ah-nas-thezee-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.

### 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 comfortable during the procedure.
- Once fully awake, you can drink fluids and eat.
- Some people go home the same day, others need to stay in the hospital.

### 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.
- After some types of VT ablations, it is necessary to take blood thinners. You will receive detailed instructions on your medications. It is important to take all your medications as directed.
- 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).
- You might notice short episodes of an irregular heartbeat for the first few weeks after the procedure. This is from the heart tissue injury as a natural reaction to the ablation. It usually goes away as the heart tissue heals.



### When should I get help?

Call the office of the electrophysiologist who did the procedure if you have any of the following:

- Continued symptoms of palpitations, dizziness, or feeling faint
- 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.

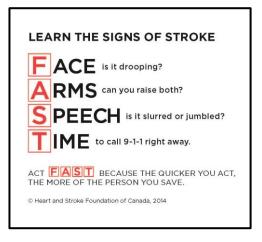
**Call 9-1-1** or have someone take you to the nearest emergency department if you have any of the following:

- 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 mini-stroke.
- You notice bright red bleeding and/or severe swelling at the insertion site.

Important: 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.

#### If you have questions or concerns:

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







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