

Patient/Family Material

Pacemaker Implantation

A guide for patients and families



Hôpital St-Boniface Hospital

Prepared by Cardiac Sciences Program
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UNIVERSITY OF OTTAWA
HEART INSTITUTE
INSTITUT DE CARDIOLOGIE
DE L'UNIVERSITÉ D'OTTAWA

Patient checklist

This checklist will help you prepare for your pacemaker implant.

Before your implant:

- ☐ Fill out the medication list at the back of this booklet and bring it with you to your appointments.
- ☐ Bring all of your medications in their original pharmacy package or bubble pack. On the day of your implant you will be taking your own medications while at the hospital.

On the day of your implant:

- ☐ Do not eat or drink anything after midnight.
- ☐ Remove all nail polish and do not wear any makeup.
- ☐ Do not take any medications on the morning of the implant, unless a doctor or nurse from our clinic has told you that it is okay to take it.

Medication	When to stop

Bring these items with you to the hospital:

- ☐ your health card
- ☐ all of your medications in their original packages
- ☐ the name and phone number of your emergency contact person
- ☐ a list of your allergies

Leave these items at home:

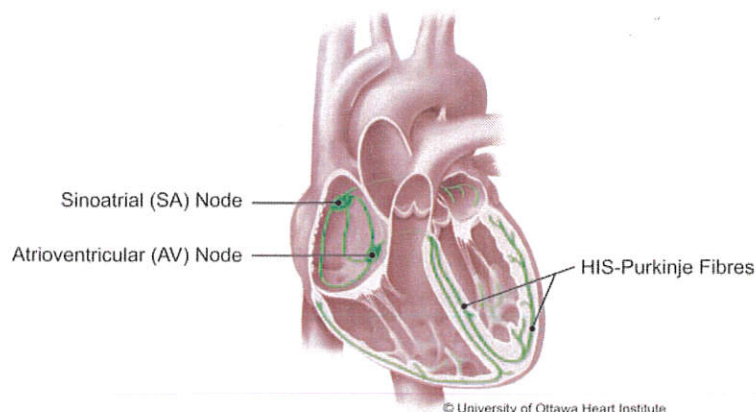
- ☐ All valuables. This includes money, jewellery, mobile phones and other personal electronic devices. St Boniface Hospital is not responsible for the loss of or any damage to personal property.

Plan for your discharge:

- ☐ You CANNOT drive yourself home. You must arrange for someone to drive you home.
- ☐ Arrange for someone to stay with you during your first night home from the hospital
- ☐ If you live more than an hour and a half from St. Boniface Hospital or more than 30 minutes from an emergency department, you will need to make arrangements to stay in Winnipeg for your first night after discharge.

The Heart's Electrical System

Your heart is a muscle that works like a pump. The main job of your heart is to pump blood throughout your body. The heart has a right side and a left side. Each side has an upper chamber, or atrium, which collects blood returning to the heart and a muscular lower chamber, or ventricle, which pumps the blood away from the heart.



The pumping of your heart is controlled by an electrical current, or impulse. The impulse starts in the sinoatrial (SA) node. It then spreads through both atria and causes them to contract, squeezing blood into the ventricles.

The impulse then travels down to the atrioventricular (AV) node. The AV node splits into two branches and travels to the bottom of the ventricles at the same time. This lets your heart pump effectively.

Heart Arrhythmias

An arrhythmia is when your heart does not beat in a normal rhythm. Tachyarrhythmia occurs when the heart beats too fast. Bradyarrhythmia occurs when the heart beats too slow.

Arrhythmias are very common and usually do not cause problems. In rare cases they can cause you to become dizzy or very tired.

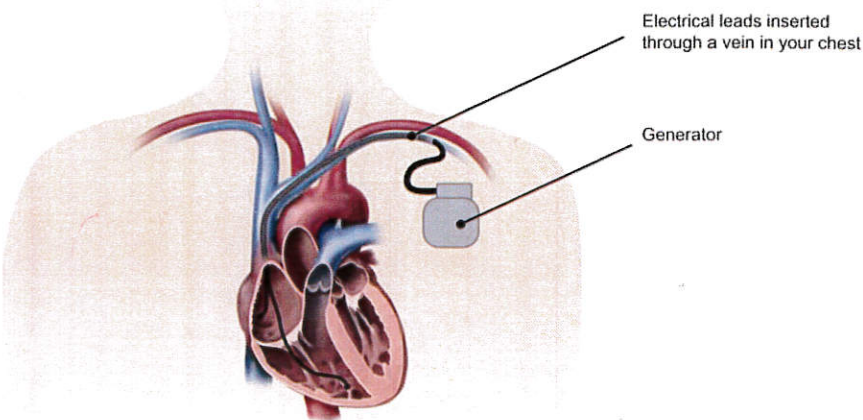
Why do I need a pacemaker?

Most people need a pacemaker because their hearts beat too slow to meet the needs of their bodies. This is known as bradycardia. A slow heart rate can cause you to feel dizzy, tired or even faint which can put you at risk for injury or harm.

Parts of a pacemaker

Pacemakers are made up of two basic parts: the pacemaker generator (sometimes called the battery) and one or more wires, called leads. The generator contains the battery, important wiring and the computer that make the pacemaker work properly. The leads are special wires that are attached on one end to the generator and the other end is attached to a spot inside your heart.

To help your heart beat properly, a very small pulse of electricity is sent from the generator and travels along the leads directly to the heart muscle. This electrical current makes the heart beat and can be delivered as needed to keep your heart beating at a healthy rate.



In general, pacemakers are implanted on the left side of the chest, just below the collarbone.

You will receive a temporary identification card with your device and lead information. A permanent one will be mailed to you in the coming months.

Preparing for your pacemaker implant

Pacemakers are put in by cardiologists who specialize in the electrical system of the heart. This speciality is called electrophysiology. These doctors all work as a team to care for all the patients who need a pacemaker. This means that the doctor who you see in clinic may not be the doctor who will put in your pacemaker.

Before your procedure

Please use the patient checklist on page 3 to help you prepare for your pacemaker.

Day of pacemaker implant:

- ☐ Plan to arrive at the hospital using the instructions you received. You do not have to arrive early as the time we have given you takes into account the time we need to get you ready.
- ☐ You will check in to the Patient Registration desk on the second floor of Y2 Bergen Centre. This is the same desk as the Pacemaker/ Defibrillator Clinic. Take the elevators from the Emergency Department entrance up to the second floor and turn right through a doorway.
- ☐ After you check in, you will go to the Pre and Post Procedure area and stay there until you are ready to go in for your pacemaker implant.
- ☐ The implant will occur in a special room called the Procedure Lab. The doctor who will put in your pacemaker will come and meet you in the Pre and Post Procedure area. This is a good time to ask any final questions before you read and sign the consent for the pacemaker.

- ❑ Once you are in the Pre and Post Procedure area, you will change into a hospital gown and your chest will be clipped and scrubbed with a cold cleaning solution. You will have a chance to use a toilet. An intravenous (IV) will be placed in your arm. You will get an antibiotic to prevent infections and this IV will be used during the implant to give you medications to keep you comfortable.
- ❑ Only one friend or relative will be able to wait with you in the Pre and Post Procedure area because space is limited. Your other support people can wait in the clinic waiting room. Once you are back in the Pre and Post Procedure area the staff will call your one friend or relative back in to wait with you until you go home or go to the overnight area.

In the Procedure Lab

- ❑ The doctor, nurses and x-ray technologist are some of the team members needed to put in your pacemaker. All staff will be wearing gowns, masks, hats and lead aprons.
- ❑ Your chest will be washed again with the cold cleaning solution and sterile sheets will be placed over you. It is important that you do not touch the top of the sheets once they are in place. Tell the nurse if you have any concerns during the implant and the nurse will be able to assist you.
- ❑ You will receive medications through your IV to help you relax, and you may even sleep lightly. You will also receive pain medications through your IV as needed.
- ❑ Freezing will be given to numb the area below your collarbone, where the pacemaker generator will be put in.

- ❑ Once the freezing has taken effect the doctor will make a small cut. The pacemaker leads will be threaded through veins to the heart, guided by a special X-ray. This is not painful but you may feel some pressure as the veins are entered. The generator is then placed just under the skin. Tell the nurse if you have any pain or concerns. It is important that you stay very still during the implant.
- ❑ Once the pacemaker is in, the cut will be stitched closed. These stitches do not need to be removed as they will dissolve on their own. Steri-strips and a small dressing will be placed over top and an even larger dressing will be put on top of that.
- ❑ It can take 1-2 hours or even longer to insert a pacemaker.

After Your Implant

- ❑ We will take you back to the Pre and Post Procedure area on a stretcher.
- ❑ You will be hooked up to a heart monitor that will show your heart rate and blood pressure. You will have a chest x-ray to check your pacemaker placement.
- ❑ A nurse from the Pacemaker/ Defibrillator Clinic will come see you to check how your pacemaker is working by placing a probe on your chest. It does not hurt when your pacemaker is checked.
- ❑ You may feel some pain at the site where your pacemaker was put in. If you feel pain, tell your nurse and we can change your position and give you pain medication to make you more comfortable.
- ❑ It is important not to raise your arm on the side of the pacemaker implant above your head for the first 4 weeks. Doing this can move the leads away from your heart wall and cause problems with the pacemaker function.

- ☐ You may experience bruising or color changes in your skin around the implant site. If you were on a blood thinner before the procedure this may be more noticeable.
- ☐ You can eat and drink normally when you return to the Pre and Post Procedure area. Your nurse will help you as needed and can bring you something to drink and a light snack.

Discharge and Follow-up Care

Once you are feeling better, have eaten and walked, you may be able to go home. Some people have to stay at the hospital overnight. We will tell you if you will need to stay the night before we put in your pacemaker.

The nurse will teach you how to care for your pacemaker site before you go home. The doctor will go over any medication changes with you. The doctor will also tell you if you should not drive for a while after your implant and when you can return to work. Before you go home, we will remove your IV and you will be taken off the heart monitor.

Discharge checklist

- ☐ Medication changes _____
- ☐ Activity over the next few weeks _____
- ☐ Driving restrictions _____
- ☐ Return to work _____

Caring for Your Insertion Site

- ☐ Leave the outer bandage on for 5 days and keep it dry.
- ☐ You cannot shower with the outer bandage on, but you can take a bath if you make sure the bandage stays dry.
- ☐ You may shower when the outer bandage comes off, but do not soak your implant site under water until after your first check-up.
- ☐ Do not rub soap across the insertion site for 10 days. Do not use lotions or cream on the implant site.
- ☐ The Steri-strips that cover the implant site can be left on until they fall off. This can take 2-4 weeks. The stitches under the skin will dissolve on their own.

When to call the Pacemaker/ Defibrillator Clinic

- ☐ Your wound swells, bulges, drains fluid, turns red or feels hot to touch
- ☐ You have swelling or pain in the arm or hand on the side of pacemaker
- ☐ You have a fever and one of the symptoms above
- ☐ If you have any concerns about your pacemaker

**The Pacemaker Clinic is open
Monday- Friday 8:00 am- 4:00 pm**

204-237-2431

**Outside of these hours please go to your local
emergency department**

**IF YOU FEEL VERY DIZZY OR FAINT GO TO YOUR
NEAREST EMERGENCY ROOM**

Activity Guidelines

- ☐ Do not lift your arm on the same side that the pacemaker was put in above your head for 4 weeks.
- ☐ Do not lift anything more than 5 pounds or pull heavy objects with this arm for 4 weeks.
- ☐ Avoid arm movements like vacuuming and shoveling for 4 weeks. You can slowly increase your activity to the level you were at before your implant.
- ☐ Avoid swimming, golfing, tennis and contact sports for 4-6 weeks.

Driving

Your doctor will discuss with you how long you have to wait before you should drive. Most people will be told not to drive for at least one week, but it can be longer. This depends on the type of pacemaker you had put in and why you needed the pacemaker.

Medications

You may be given a prescription for pain medication to use as needed. You should take your usual medications unless you were told you should not.

Follow-up in the Pacemaker/Defibrillator Clinic

- ☐ Each time you come to the pacemaker clinic, you will be seen by a nurse who will test your pacemaker and make sure the settings are the best for you.
- ☐ When it is needed, a cardiologist will be asked to see you about your pacemaker or your heart rhythm.
- ☐ How often you come to clinic will depend on many factors. At the end of each visit, we will tell you when you need to return for your next appointment.
- ☐ Your family doctor and cardiologist will receive updates on your visits as needed.
- ☐ Please bring a current list of medications with you to every appointment

Cardiac Rehab

To help prevent more problems with your heart there are four key areas to focus on: medications, diet, exercise and quitting smoking.

Cardiac Rehabilitation Programs (cardiac rehab) offer education and support to people who have heart disease. We will send a referral to the cardiac rehab site that you prefer.

Local programs include:

Reh-Fit Centre in Winnipeg.....	204-488-8023
Wellness Institute in Winnipeg.....	204-632-3907
Brandon Heart Program.....	204-578-4202
Rehabilitation and Health Lifestyle Program Thunder Bay.....	807-684-6780
The Pas.....	204-627-6418

MedicAlert Bracelet

It is a good idea to get an alert bracelet or necklace that tells the public about your pacemaker in case of emergency. A MedicAlert brochure is included in this booklet.

About Your Device

Your device has _____ wires.

Your device is set to keep your heart from going slower than _____ beats per minute.

Frequently Asked Questions

Can I use a cellphone?

Yes you can use a cellphone. When speaking or simply carrying your cellphone, you should keep it on the opposite side of your body as your pacemaker.

Can I use an iPod or MP3 player?

Yes you can. Carry your player on the opposite side of your body as your pacemaker.

Can I use a microwave oven?

Yes, you can use a microwave oven without taking any special precautions.

Can I go through a security system at the airport?

Yes, it is ok to walk through the security screening archways. The system may detect your device and set off the alarm. This will not affect the functioning of your device. Present your device identification card to the security personnel. Ask that they perform a hand search and do not use the handheld wand as this might affect your device.

How long should a pacemaker last?

Pacemakers can last from 5-10 years. The average is 7 years. The length of time depends on how hard the generator/battery has to work. We will check the function of your pacemaker at each clinic appointment.

Will I feel the pacemaker?

At first, you may feel the weight of the pacemaker in your chest. With time, you will get used to it. The generator is very small, about the size of two toonies stacked together, and it weighs about an ounce.

Can I exercise?

Your doctor will let you know when it is safe to exercise again.

My Medication List

Please list all medications, herbals, supplements, vitamins, including prescription and non-prescription medications.

Name of medication	Dose	When taken	Reason for taking