



A Guide to Your Pacemaker

Information for Patients and Families



fraser health

Better health. Best in health care

This booklet tells you about your pacemaker. This booklet will tell you about what to expect before, during and after your hospital stay. Your nurse will help you to understand the information and how to take care of yourself when you are having a pacemaker.

- Take your time.
- Write down any questions you might have.
- Talk to us about your concerns and ask questions.

We are here to help you and your family.

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Cardiac Pacemakers

Why you need a pacemaker

You have a problem with your heart beat that could be helped with a pacemaker. Because your heart beat is too slow, too fast, or too irregular it can make you feel short of breath, dizzy, drowsy, tired or you may even black out.

How a pacemaker works

A pacemaker has only one function and that is to keep your heart from going slower than the rate that the pacemaker has been set. This is usually 60 beats in one minute. It will not keep your heart from going too fast. Patients with a fast heart beat often need both a pacemaker and medication. The medication will protect the heart from beating too fast. The pacemaker will protect the heart from beating too slow, which can be caused by some medication. This combination will allow for a much more normal heart rate.

A pacemaker is made up of leads and a pulse generator.

The leads are less than 2 mm or 0.07th of an inch wide and are coated with silicone to insulate them. The leads make it possible for the device to send signals to the heart muscle and to pick up or sense what your heart rhythm is doing at all times. Leads normally last a long time (usually more than 20 years) before they need to be replaced.

The pacemaker is sometimes called the generator, pulse generator, or battery pack. In fact all the components including the battery and computer are housed within the small pacemaker that is made up of titanium and plastic. The body does not react to these materials and you do not need to take drugs to prevent rejection.

The pacemaker is light weight, about 135 grams or less than 5 ounces and it will be set and adjusted to meet your heart rate needs.

The battery lasts about 6 years. Usually the battery is checked every 6 months at a specialist device clinic. The generator sends out a signal to alert you or your caregivers when the battery begins to wear out or if there is a problem with your device. This signal may be a vibration or quivering that you will feel or a sound that you will hear. Please refer to the device company booklet for what kind of signal your device will give you. The battery life is usually very predictable and there is usually plenty of time to arrange for a battery replacement.

Getting Ready for Your Pacemaker

Our health care team is dedicated to giving you the best possible care. The following information is presented in the form of a “pathway” that is like a road map giving you and your family a general outline of what to expect before, during, and after your hospital stay.

Knowing what to expect will help you to be more involved in your care; let you know what will happen; and help you to be better prepared when you leave the hospital.

If you are coming from home, you should expect to stay in hospital for just the day of your procedure. However, depending on your specific needs your care may be adjusted and your hospital stay may need to be longer. Please ask any questions and write them down on the back page of this book.

In Fraser Health pacemaker procedures are done at either the Jim Pattison Outpatient Care and Surgery Centre or the Royal Columbian Hospital.

What You Can Expect	Getting Ready for Your Pacemaker
<p>If you are waiting in hospital</p>	<p>You will be taken by ambulance to the hospital where you will have the pacemaker and after the pacemaker you will go back to the hospital you came from by patient transport or ambulance.</p> <p>While you are waiting in a hospital for your pacemaker you will get all the necessary information and testing</p> <p>Feel free to ask any questions or raise any concerns.</p>
<p>If you are waiting at home for your procedure</p>	<p>It is expected that you will be discharged the same day as your procedure. Before you come into the hospital you must arrange for the following:</p> <ul style="list-style-type: none"> • A ride to and from the hospital • Someone to stay with you for a day or two when you are discharged home. <p>You may have an appointment before your procedure at a Pre-Admission Clinic or with your heart specialist doctor to ensure you get the necessary information and testing.</p> <p>Feel free to ask any questions or raise any concerns. You can also discuss questions with your usual heart specialist.</p>
<p>Having tests</p>	<p>Before your pacemaker procedure, you will have some blood tests, an electrocardiogram (ECG) that gives a tracing of your heart beat, and maybe a chest x-ray.</p>

What You Can Expect**Getting Ready for Your Pacemaker****Taking and stopping your medications**

DO NOT stop taking any of your normal medications without being told by your doctor or nurse.

Please bring a list of all your medications with you to the hospital.

Certain medications, like blood thinners and insulin or diabetic pills, may need to be stopped before your procedure. You will be given instructions that are right for you.

Giving consent

Before your pacemaker the doctor will talk to you about the procedure. This is your chance to ask questions before you sign the consent forms. It is important to ensure that having a procedure fits with your values and wishes for your care.

If you are unable to sign or give consent, then a family member or legal decision-maker can sign on your behalf.

If your family member or legal decision-maker has not already signed your consent before the day of the procedure then this person must come to the hospital where the pacemaker will be done to sign the consent before you have the procedure.

Cleaning your skin

If you are waiting at home for your pacemaker you will be instructed where to buy the CHLORHEXIDINE GLUCONATE 2% product.

Your **upper body and neck** will be cleaned 2 times before your procedure with a CHLORHEXIDINE GLUCONATE 2% product.

- 1st skin cleaning the night before your procedure.
- 2nd skin cleaning will be done at the hospital right before your procedure.

Be sure **NOT** to rinse off the product after applying as it needs to dry and stay on the skin. **DO NOT** put on any body products after the cleaning like perfume, deodorant, or lotion.

Be sure to put on freshly laundered clothing after each cleaning.

Any body hair at the area where the pacemaker will go will be removed with clippers before your procedure.

What You Can Expect	Getting Ready for Your Pacemaker
<p>Taking and stopping food and drink</p>	<p>Please do the following unless your doctor or nurse has told you otherwise:</p> <ul style="list-style-type: none"> • Eat a snack in the evening the day before your procedure, then DO NOT eat solid food after midnight before your procedure. • Drink as much clear liquids as you like if you are awake during the night. • Drink 1 to 2 glasses of apple or cranberry juice at 5 a.m. the morning of your procedure. Set an alarm to wake-up if necessary, then DO NOT drink any liquids after 5 a.m.
<p>What to bring with you to the hospital</p>	<ul style="list-style-type: none"> • ALL your medications including a written list • Dentures • Hearing aid • Glasses • Care Card
<p>What NOT to bring with you to the hospital</p>	<ul style="list-style-type: none"> • Jewelry • Other valuables like money, credit cards
<p>Who to bring with you to the hospital</p>	<p>Bring a family member or friend with you to the hospital if for instance:</p> <ul style="list-style-type: none"> • You need help understanding things or if you have difficulty reading or speaking English, use sign language, or have any other problems communicating. • You would like a familiar face and voice present if you tend to get confused or agitated.
<p>Ask someone to drive you to and from the hospital</p>	<p>You will need a family member or friend to drive you to the hospital the day of your procedure and also to drive you home after you are discharged.</p>

Having Your Pacemaker

Having a pacemaker is called a minor procedure because it does not take a long time to do. It can most often be done with sedation and some freezing (local anesthetic) will be put into the area where the cut or incision will be.

What You Can Expect	Having Your Pacemaker
Who will do your procedure	Your pacemaker is inserted by a doctor who has been specially trained to do this procedure.
Where will your procedure be done	It is done in a procedure room which looks like an operating room.
How long will it take	The procedure will take from 1 to 2 hours.
What you can bring into the procedure room	<p>You can wear socks and underpants.</p> <p>You should wear your glasses and hearing aid.</p> <p>NO jewelry.</p> <p>NO dentures.</p>
Getting medication to relax	To help you relax you will be given a mild sedative before your procedure and a stronger one if you are very nervous and anxious. This medication may make you feel drowsy.
Getting local anesthetic	<p>The area where the pacemaker will be placed is numbed with a local anesthetic so you will not feel the incision and it will slowly wear off over 4 to 5 hours.</p> <p>It is normal to feel a pushing and pulling or tugging sensation during the procedure. If there is any sharp pain you will be able to tell your doctor and nurses.</p>
Getting antibiotics	You will be given an antibiotic through your intravenous just before your procedure to help prevent infection.
Being connected to machines and monitors during the procedure	There are special x-ray cameras and monitors in the room for the procedure.

What You Can Expect	Having Your Pacemaker
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How the pacemaker is placed in your body

The pacemaker is usually placed on the left side of the body. Let your doctor know if you are left handed or have concerns about the placement.

After the area has been numbed a 2.5 cm to 7.5 cm or 1 to 3 inch incision is made under the collar bone and a pouch is made under the skin and fat.

The doctor will find a vein leading to your heart inside this pouch. With the help of X-ray pictures the pacemaker leads will be threaded through this vein until the tip of the lead is placed carefully inside your heart.

The other end of the lead is then attached to the pulse generator.

The pacemaker is tested to make sure it is working properly after it is placed inside the pouch.

The incision is closed in most cases with a dissolving stitch. It is then reinforced with little white tapes called 'steri-strips' and covered with a small dressing. You should remove these tapes after 1 week.

If your doctor used some other way to close the incision you will be given instructions on what to do with the incision before you go home.

Recovering in Hospital After Your Pacemaker

The next few pages outline much of what you and your family can expect while you recover from your procedure in the hospital. Please ask questions and raise any concerns to your doctor or nurse.

What You can Expect	Recovering in Hospital After Your Pacemaker
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Using a pain rating scale



May be duplicated for clinical practice as appears in:
Pain Clinical Manual, 2nd Edition, 1999, p. 63
Margo McCaffery, & Chris Pasero

To help describe any pain you have after the procedure you will be asked to pick a number between **0 = No Pain** and **10 = Worst Possible Pain**.

Taking pain medication

Usually a pacemaker procedure does not cause a lot of pain but you will be given acetaminophen (Tylenol®) regularly to prevent pain from becoming a problem.

Having your vital signs taken

You will have your vital signs taken regularly. They must be within your normal range before you can be discharged.

Having your heart monitored

You will be attached to a heart monitor for the first few hours to let the nurses and doctors know what your heart beat is doing. Your pacemaker must be working properly before you can be discharged.

Having an intravenous (IV)

Your intravenous will be removed before you are discharged.

Taking care of your dressing (bandage)

You will have a dressing covering the incision. Usually this does not need to be changed before you are discharged. You should leave the dressing on for 1 week unless you have been told otherwise by your pacemaker doctor or nurse.

Drinking and eating

You can drink and eat your usual food after your procedure and before you are discharged.

Using the bathroom

You will walk, if able to the bathroom to use the toilet. Please ask for help the first time you get up.

What You can Expect	Recovering in Hospital After Your Pacemaker
Taking care of your pacemaker site	Please DO NOT fiddle, tamper, tinker or in any way mess about with the pacemaker generator box as it can cause the pacemaker to stop working or disturb the wires.
Getting out of bed and moving around	<p>Before you are discharged you will:</p> <ul style="list-style-type: none"> • Get in and out of bed, with help if needed. • Sit in a chair or at the side of the bed. • Take a short walk if you were able to walk before the procedure.
Making plans to leave the hospital	<p>You should:</p> <ul style="list-style-type: none"> • Be sure to ask any questions you may have. • Know who will help you once you are discharged. • Know what follow-up appointments you will have to make. • Be given any medication prescriptions. • Be given information for follow-up appointments • Know the name and contact information of the pacemaker doctor. • Have your temporary pacemaker identification card and company information booklet.
Restarting your home medications	You will be told by your doctor or nurse which medications you can start to take again.
Getting your pacemaker identification card	Before you leave hospital you will be given a temporary pacemaker identification card. About 2 to 3 months later you will receive a permanent pacemaker identification card in the mail.
Transferring back to your home hospital	<p>If you came from a hospital to have your pacemaker procedure you will be transferred back to that hospital when it is safe.</p> <p>Going home will be arranged by your doctor at that hospital.</p>

Recovering at Home After Your Pacemaker

Congratulations! You no longer need hospital care and are ready to continue recovering at home after your pacemaker procedure. Information in the remainder of this book is intended to help you and your family for the next 4 to 6 weeks and beyond.

Even though you are expected to recover quite quickly, there are special instructions that you need to follow during the first 4 to 6 weeks that will help you avoid trouble or problems with your pacemaker.

Call your family doctor if you have any condition that seems to get worse. Remember that you should see steady improvement as you recover.

What You can Expect	Recovering at Home After Your Pacemaker
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Follow-up appointments and who to call with questions or concerns

Family Doctor

- Once you are discharged, please telephone to arrange an appointment with your Family Doctor within the first week.
- Call your Family Doctor if you have any questions about your medications or any worries or concerns.

Follow-up Appointment to Check Your Pacemaker

- A first appointment usually happens 4 to 6 weeks after your pacemaker. You will be instructed where to go for this visit.

The doctor who put in your pacemaker

- The doctor who put in your pacemaker may need to see you for follow-up. If so, you will be told about this appointment before you are discharged.
- Not all patients need this appointment.

Implantable Cardiac Electrical Devices (ICED)

Coordinator

Call the ICED Coordinator at 1-855-529-PACE (7223) if you or your family has general questions about your pacemaker and recovery.

Appointment reminders:

- Please go to all follow-up appointments.
- Please call well in advance if you have to change the date or time of your appointment.

Please bring your pacemaker identification card and a list of all your medications to you follow-up appointments.

What You can Expect**Recovering at Home After Your Pacemaker****Watching for bruising**

At first there may be some bruising in the area of the pacemaker but this should go away over 6 weeks time. You should call your doctor if you have a bruise or swelling larger than an egg after your procedure. **A new bruise is not normal.**

Taking care of your incision

Take care of your incision by doing the following:

- If there is a see-through transparent waterproof plastic dressing or bandaid type dressing covering your incision leave it in place for the first week and then remove it.
- If there is a large gauze dressing this should be removed by your family doctor after 1 week.
- If the incision is draining through the dressing you should contact your family doctor as soon as possible.
- If there are small tapes covering the incision remove these 1 week after they were put on. Do this by gently lifting each end and rolling the ends to the middle where the incision is. Then, one by one ease them away from the incision and the scabs that may have formed. Wetting the area first in the shower may help loosen the tapes and adhesive.

It takes a few months for the scar to form on any incision. After the first week you can use an unscented lotion if your incision becomes itchy.

Warning signs of an incision infection

An infection in your incision may not be noticeable for several days or even weeks after your procedure. As your incision heals watch for the following warning signs of an infection:

- Redness
- Warmth or a feeling of heat at the area
- Puffiness or swelling
- Drainage that has pus
- Pain or tenderness
- Temperature of 100° F or 38° C or higher

If there are problems at the pacemaker area that point to an infection, promptly contact the pacemaker clinic or the pacemaker doctor.

What You can Expect	Recovering at Home After Your Pacemaker
Warning signs of a blood infection	<p>Patients with pacemakers need to watch out for a blood infection. Although this is rare it can be serious.</p> <p>It is important that a blood infection is diagnosed and treated early so if you feel unwell or think you have the flu you should see your family doctor.</p>
When to seek immediate medical attention	<p>You needed a pacemaker because you had a problem with your heart rate. The pacemaker should take care of this problem.</p> <p>Go to the nearest hospital if you have any of the following:</p> <ul style="list-style-type: none">• Dizziness or lightheadedness• Blacking out or fainting• Pain in your chest or shoulder• Shortness of breath• Palpitations or a racing heart• Increasing weakness• Increasing tiredness or fatigue• Lots of hiccups or muscle twitching• Temperature of 100°F or 38°C or higher• Bleeding at the pacemaker site <p>The hospital can contact your pacemaker surgeon if it is a problem with your pacemaker.</p>

What You can Expect

Recovering at Home After Your Pacemaker

Having pain

It is normal to have some mild pain and discomfort at the pacemaker site for a few weeks after the procedure. However, you will recover better if this pain is avoided or well-controlled. When you were in the hospital you were given acetaminophen (Tylenol®), as a painkiller to prevent you from having pain. You were given this without asking for it and whether you had pain at the time or not.

When you get home you should continue to take regular-strength acetaminophen, which is not addictive.

Please make sure not to take more pills in a day than suggested on the bottle. The acetaminophen can be a no-name or store-name pill, or a brand name pill, like Tylenol®.

After 2 days start to cut back and take acetaminophen only as needed it to keep you comfortable 2 days after the date of your pacemaker. For example, instead of 4 times a day, try 3 times a day, then 2 times a day and so on. If you start to feel more discomfort as you cut back go back to taking the extra doses and try again to cut back in a day or so.

To prevent pain at the pacemaker site it is also helpful to rest the arm that is on the side of the pacemaker.

Taking medication

Unless instructed otherwise by your doctor or nurse, please continue to take the medications you were taking before you had the pacemaker.

Make a list of all your prescription and over-the-counter medications and take this list with you to any appointments or hospital visits.

Taking blood-thinners

Warfarin (Coumadin®) is a blood-thinner, also called an anticoagulant that makes the blood take a longer time to clot.

If you were taking blood thinners before your procedure, start taking them again as you have been instructed by your doctor or nurse

If you were taking Warfarin (Coumadin®) go to the lab and have your International Normalized Ratio (INR) blood test done within 5 days of having your procedure.

What You can Expect	Recovering at Home After Your Pacemaker
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Taking a shower/bath

After 48 hours it is okay to shower and after 1 week it is okay to have a tub bath every day with warm water and mild soap even if you have a dressing.

For 6 weeks:

- **DO NOT** scrub your incision, instead gently wash, rinse, and dry it.
- **DO NOT** soak your incision for a long time.
- **DO NOT** let the water from the shower spray directly on to your incision.

Dressing and clothing

When dressing put the arm on the side of the pacemaker through the clothing first.

To avoid irritation and skin breakdown wear loose-fitting clothing over your pacemaker area.

You may wear a brassiere if it is comfortable. It may help to pad the shoulder strap.

Sleeping

You can sleep in any position that does not cause discomfort around your incision.

Dealing with your feelings and emotions

After your pacemaker you may feel:

- Fearful
- Uncertain
- Angry
- Irritable
- Worried
- Insecure
- Anxious
- Depressed

As you recover physically you should also recover emotionally. If you continue to have any of these symptoms talk to one of your health care providers.

Talk to your family doctor and to your family, friends, and others who have also had a pacemaker for support.

What You can Expect	Recovering at Home After Your Pacemaker
Resuming sexual activity	<p>Resuming sexual activity will not harm your pacemaker. When you resume sexual activity remember:</p> <ul style="list-style-type: none">• Give yourself the time you need.• Make sure you are well rested and relaxed.• Wait at least one hour after a meal.• Avoid positions that create discomfort at the pacemaker site.
Avoiding some activities	<p>For the first 6 weeks to prevent pain or discomfort in the pacemaker area and to prevent the pacemaker lead or leads inside your heart from moving out of place avoid vigorous repetitive activities such as hitting a bucket of golf balls, table tennis or chopping wood.</p> <p>AVOID any contact sport which could damage the pacemaker.</p>
Doing some shoulder and arm exercises	<p>Starting 24 hours after your procedure and for the first 2 weeks, do some gentle shoulder exercises by rolling your shoulders 3 times a day. This helps to restore normal shoulder movement and prevent stiffness and soreness.</p> <p>You can also start doing some arm exercises like walking your fingers up and down the wall being sure to not go above the height of your shoulder.</p>
Going through an airport	<p>It is safe to pass through airport security systems and anti-theft devices at department and retail stores.</p> <p>At the airport let the security guard know that you have a pacemaker so that they can avoid using a detection wand over the pacemaker site.</p> <p>You may be asked to show your pacemaker identification card, so remember to carry this in your wallet.</p>
Driving a vehicle	<p>Unless instructed otherwise by your doctor or nurse you are not to drive a vehicle for 24 hours after your procedure.</p>

What You can Expect	Recovering at Home After Your Pacemaker
Wearing a seatbelt	Even though you have a pacemaker you still have to wear a seatbelt when in a vehicle. Some patients find it more comfortable to use a small pillow as padding between the pacemaker area and the shoulder belt.
Avoiding areas with a magnetic field, high voltage or radiation	<p>Avoid being in industrial areas with magnetic fields and high voltage or radiation, and avoid welding equipment as they could cause your pacemaker to not work as it should.</p> <p>For examples of these areas, please refer to: http://www.medtronic.com/wcm/groups/mdtcom_sg/@mdt/@crdm/documents/documents/electromagnetic-compatibility.pdf</p> <p>If you have entered such an area you should leave if you feel any of the following:</p> <ul style="list-style-type: none">• Light-headed• Dizzy• A change in your heart beat
Using normal household items	<p>It is safe to be around or use any of the following:</p> <ul style="list-style-type: none">• Microwave ovens• Cellular telephones• Electric razors, hair dryers, electric toothbrushes• Lawnmowers, weed eaters, electric drills or saws• Television sets, CD players, radios <p>Refer to the Electromagnetic Compatibility Guide that you will be given before discharge from hospital.</p>

What You can Expect**Recovering at Home After Your Pacemaker****Making sure ALL care providers know you have a pacemaker**

It is important to inform ALL health care providers such as doctors, nurses, dentists, chiropractors, massage therapists, etc that you have pacemaker.

This will allow them to take special precautions for certain types of procedures.

If your health care provider is not familiar with what special precautions are needed, they can contact the ICED Coordinator at 1-855-529-PACE (7223).

Carrying a pacemaker card with you at all times

Always carry your pacemaker identification card. In an accident this card will tell the people helping you that you have a pacemaker. Your card can be helpful if you travel by air. The metal-detection devices in airports may detect the metal in your pacemaker, although they won't damage it. Showing your card may save you some inconvenience.

Your permanent identification card will be mailed to you within 3 months after your procedure and it is to replace the temporary one you will get before you are discharged.

Wearing a Medic Alert

It is recommended that you get a Medic Alert bracelet or necklace so that in the event of an emergency your health care provider can get your important medical information.

Contact Medic Alert at 1-800-668-1507 or www.medicalert.ca for more information.

Dealing with special considerations

Feel free to ask any questions or voice any concerns you may have about your heart or your pacemaker. Your doctor or nurse can help you understand how your pacemaker can affect your future health care needs and decisions. In time it may become important for you and your family to talk with your doctor or nurse about when to shut off your pacemaker if it should no longer be needed.

Special Instructions

www.fraserhealth.ca

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