

Pacemaker Implant

General Information

A pacemaker implant is a minor surgical procedure usually done at the heart center of the hospital. Pacemakers are small implantable devices that monitor and regulate the rhythm of the heart. The device sends electrical signals to stimulate the heart if it is beating too slowly.

At the Hospital

After registering for your hospital admission and arriving at the Cardiovascular Short Stay Unit you will be greeted by a nurse who will orient you and your family to the Unit. Information important to your procedure and hospital stay will be entered into the computerized medical record. Be sure you bring a complete list of your medications. An intravenous (IV) catheter will be inserted into an arm vein and blood sent to the laboratory for analysis. An MHVI nurse practitioner or physician assistant will update your history and physical. You will be moved to the procedure room and your family/friends directed to a comfortable waiting lounge. In the procedure room you will be introduced to the surgical team as they go about preparing you for the surgery. The nurse will give you short-acting sedatives for pain and relaxation. Patients usually do not recall much from this point until they get to their room afterwards.

Immediately after the procedure the doctor will meet with your family/friends to review the procedure. Meanwhile, you will be transported from the surgical suite to a hospital room on the cardiac unit for recovery. Your family/friends will join you there. A portable chest x-ray will be taken, and once you fully awake, you will get something to eat. After a few hours you will be allowed to get up and move around freely, although you will be restricted to the cardiac unit so that your EKG telemetry unit will stay in range of the monitoring antennae. The next day you will get a second chest x-ray in the radiology department. The pacemaker manufacturer's representative will complete a detailed analysis of the pacemaker. If any changes in the programming are necessary, they will be discussed with your doctor. A MHVI nurse practitioner or physician assistant will see you for pre-discharge evaluation and discharge planning, including medications and follow-up appointments. Your first pacemaker appointment will be within 10 days. Thereafter, your pacemaker will be checked every few months either over the phone or in the office. As the battery starts to decline, follow up will be more frequent until

replacement surgery is performed. You and your family are encouraged to review all the material provided and ask any questions of the physicians, nurses, and staff.

Restrictions

1. No magnetic resonance imaging (MRA or MRI)
2. No shooting a firearm off the pacemaker shoulder
3. No electrical welding. You may be in a room with a welder, but stay more than three feet away. This may also apply to work around other strong electrical fields such as very large generators, automobile alternators, very large loudspeaker magnets, etc.
4. ANYTHING ELSE IS OK!!! This includes microwave ovens, cell phones (do not carry in breast pocket below pacemaker), electric razors and toothbrushes. You may safely walk through airport/retail security. You will be given a temporary pacemaker card in the hospital; a permanent one will be mailed to you a few weeks later. For additional information see the Boston Scientific, Medtronic and/or St. Jude Medical web sites: bostonscientific.com, medtronic.com and sjm.com.

Activity

1. Keep pacemaker-side elbow below shoulder height for 4 weeks. A shoulder immobilizer will be provided to help with this restriction during sleep.
2. Do not lift, push or pull more than 10 lbs (5Kg) for 4 weeks with pacemaker-side arm.
3. Use the pacemaker side arm lightly and increase as pain allows. Do not hold the arm immobile after surgery.
4. Resume driving two days after surgery – unless otherwise instructed by your physician.

Pain Control

1. Plain Tylenol – follow label directions.
2. Ice pack to site as needed.
3. If pain is severe, call the MHVI Device Clinic (763) 427-9980.

Wound management

1. Mild redness and swelling are normal for a week or two.
2. Avoid touching the site as much as possible. A special waterproof dressing will be placed over the wound site after the procedure. Please

- do not remove this dressing. The dressing will be removed at the wound check appointment.
3. As the wound heals, it may become itchy. Scratching the site can introduce bacteria to the wound and cause a very severe infection that may require intravenous antibiotics and surgery to correct. Scratching may occur during sleep so keep your fingernails very short during the first two months after surgery to help prevent infection.
 4. Nicotine causes small blood vessels to spasm, cutting off blood flow. This severely degrades wound healing and increases the risk for infection. Do not use any nicotine products one week before to two months after pacemaker surgery. This includes cigarettes, cigars, secondhand smoke, chewing tobacco, nicotine patches or nicotine gum. Let us know if you would like a prescription for Zyban to help you through withdrawal.
 5. If swelling is severe or increases significantly, call the MHVI Device Clinic (763) 427-9980.
 6. Showering is allowed on the first day of surgery. Do not allow the shower head to beat directly on the dressing/wound site. Do not let it soak in a bath tub hot tub. It is important that you don't remove this dressing at home. The dressing will be removed at the time of your wound check by a nurse.

Follow up

1. An pacemaker appointment will be scheduled for 7-10 days after surgery to:
 - a. Evaluate the wound
 - b. Review your medications
 - c. Check the pacemaker
 - d. Enroll you in the pacemaker surveillance clinic
 - e. Provide you with information regarding home-based pacemaker checks.
2. Pacemaker surveillance is extremely important. It allows us to:
 - a. Monitor how changes in your health or your lifestyle may affect the pacemaker and make any programming changes necessary.
 - b. Notify you of any issues that need to be addressed with your pacemaker such as battery depletion, lead dislodgment, fracture or failure, manufacturer alerts or recalls.
 - c. Anticipate elective replacement of the generator as the battery wears out.
 - d. Address your questions about your pacemaker.
3. Your pacemaker will need to be surgically replaced when the battery voltage reaches the Elective Replacement Indicator (ERI). This will be in 5-10 years depending on how much the pacemaker paces and other programmed settings. A new generator will be likely placed on the old

lead(s). This is a same-day procedure. If a new lead is required, you will be kept overnight for routine monitoring and chest x-rays.

Travel

It is safe to travel with a pacemaker. When going through airport security, notify the officials that you have a pacemaker. It is safe to walk through the electronic search arch, but your pacemaker will likely be detected. Do not allow a wand to be waved over the pacemaker site, ask for hand search. Carry your pacemaker wallet card with you. Carry all your medications in their original bottles, not divided up into a weekly dispenser. Emergency care of your pacemaker is available all over the world from your pacemaker's company. See their web site or call the consumer line on your wallet card if you need specific site information.

Recreation

Golf – Swinging a golf club hard too soon after surgery can be disruptive to the healing pocket and could dislodge the lead(s). You may chip and putt immediately, taking pitching shots at four weeks and full swings at three months.

Swimming – Immersion of the pocket site too soon after surgery can cause a severe infection. The risk may be decreased by skin closure glue. Also, in some patients, if the lead were to dislodge while swimming, you could faint and potentially drown. Do not go swimming for four weeks after surgery.