
Care of Your Child with a Pacemaker

Developed by the health care professionals of the
Department of Cardiology with assistance from the
Department of Learning and Development.

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4480 Oak Street, Vancouver B.C. V6H 3V4, 604-875-2345

Name: _____

Pacemaker name and model number: _____

Pacemaker serial number: _____

Lead name and model number: _____

Lead serial number: _____

Surgical Date: _____

Your child's pacemaker is currently set to:

Lower rate: _____

Upper rate: _____

Directory

Pediatric Cardiologist: _____

Contact Number: _____

Or after regular hours, contact the cardiologist on call at:

Cardiac Surgeon: _____

Contact Number: _____

Nurse Clinician: _____

Contact Number: _____

Your child has had a pacemaker inserted to help treat his or her irregular heart rhythm (arrhythmia). This is an electronic device that monitors the heart's electrical activity and maintains a normal heart rate and rhythm.

It is normal to have lots of questions about how this will affect your child. This booklet is intended as a guide to help answer those questions. Please be sure to discuss any specific issues you may have with your child's health care team.

INCISION CARE

Your child's nurse will show you how to properly care for your child's incision. Keep the incision clean and dry until it is completely healed. Your child can have a shower as soon as he or she is feeling well enough after surgery.

Your child **should not**:

- Have a bath for 7 days.
- Go swimming for at least 6 weeks. See the "Activity" section on page 4 for more information about swimming.

SCHOOL

Your child can return to school when the discomfort from the surgery goes away. This is usually in one week. Your child should not participate in regular physical activity classes for six weeks. If you have any questions about an activity or if you are unsure if it is safe for your child to do, discuss it with your child's nurse or cardiologist.

Your child should not carry a backpack or heavy books on the affected side (the side where the pacemaker was inserted is called the affected side).

Tell your child's teachers about your child's pacemaker and any restrictions.

FOLLOW-UP CARE

Your child needs to be seen by a cardiologist on an ongoing basis. Follow up is important to check that the pacemaker is working as it should and to monitor the battery status.

ACTIVITY

Immediately after surgery, we recommend that your child uses an arm sling to help remind him/her to limit his or her movement on the affected side for the first 48 hours.

For 4-6 weeks after surgery, your child must avoid arm swinging or overhead reaching. Common daily activities that involve repetitive, vigorous arm movements, such as hair brushing and teeth brushing, should be done with the unaffected arm. Common sport activities that use these motions are golf, tennis, bowling, baseball, basketball, volleyball and swimming. Your child should not lift weights or heavy objects weighing over 5-10 pounds during this period.

Your child must wear a seat belt at all times when traveling in a vehicle.

After 6 weeks, your child can return to his or her regular activities but there are some special considerations because of the pacemaker:

1. Contact sports such as karate, boxing, wrestling, tackle football, hockey, bungee jumping and uneven parallel bars in gymnastics should be avoided. Any activities that could result in a direct blow to the pacemaker should be avoided.
2. Other sports may be OK depending on things such as your child's age, size, size of their playmates/teammates and the location of his or her pacemaker. Sometimes your child can participate if the pacemaker site is protected with protective garments/aides such as HeartGuard™ (see www.softballjunk.com/heartguard.htm for more information). Make a point of discussing your child's sports and activities when you visit the cardiologist.
3. Consider safety in individual sports. For example, if your child is swimming or climbing, make sure he or she is with a buddy. There is always a possibility that your child could have a fainting episode which could put your child in potential danger (children who are pacemaker dependent or with Long QT are especially vulnerable).
4. Tell your child's family and friends that the pacing lead (wire) is fragile. Your child will need surgery if it is broken. Encourage your child to use his/her best judgment about participating in an activity.
5. Your child should not wear a backpack over his/her affected shoulder.
6. Your child must wear a seatbelt, even if it is uncomfortable over the affected area. You can purchase a padded adaptor for increased comfort while wearing a seatbelt (see www.aboutsofttouch.com for more information).

WHEN TO CALL

Tell your child's Cardiologist or the clinic nurse if your child has any of the following problems:

- Increased pain, redness, swelling or drainage from the incision
- Wound edges coming apart
- Fever above 38°C
- Dizziness, fainting
- Palpitations, "heart racing"
- Decreased exercise tolerance
- Increased tiredness or irritability
- Chest pain or difficulty breathing
- Pulse rate less than lower rate limit or higher than upper rate limit

See the directory on page 1 for the number to call.

TRAVEL

Here are some guidelines to follow when traveling that will help reduce the risk of having problems during your trip:

1. It is strongly recommended that you have travel insurance when traveling to ease the high costs of care in other countries.
2. Always carry the pacemaker device ID card. It is strongly recommended that your child wear a Medic Alert™ bracelet or necklace (see www.medicalert.ca for more information).
3. Make a list of your child's medical emergency contact information. Include contact numbers of people in your home location (a relative or close friend) as well as at your destination. Keep this information with your child.

4. Before you leave, check if there is Pediatric Electrophysiology support at your destination. Check the website of your child's pacemaker manufacturer (e.g. Guidant, Medtronic). They often have a listing of doctors around the world that can help you in case of an emergency.
5. Make an emergency plan and carry it with you and your child at all times.
6. Airport screening devices may detect the pacemaker's metal case and activate the alarm. Show your pacemaker identification to the airport personnel and ask for a hand search. Avoid having the handheld screening tool waved over the pacemaker. It contains a magnet that may temporarily interfere with pacemaker treatment.
7. Take enough medicine to last the whole time you will be away from home.

ENVIRONMENTAL/HOSPITAL HAZARDS

Your child can be safely exposed to most household appliances and tools that are in good repair and are properly grounded, including:

- Microwave ovens
- TVs, AM/FM radios, VCRs, remote controls
- Personal computers, printers, fax machines
- Hand-held appliances: hair dryers, shavers (avoid holding against implant site)
- Electric blankets, heating pads
- Cellular phones if kept at least 6 inches away from the pacemaker site

Electromagnetic interference (EMI) can affect how your child's pacemaker functions. Some sources of EMI include:

- Industrial arc welders and furnaces
- Large generators and power plants
- Large magnets, such as those used in some large stereo speakers and magnetic therapy products
- Antennas used to operate CB or ham radios and other radio transmitters
- Large TV or radio transmitting towers and power lines carrying over 100,000 volts (maintain a distance of 25 feet)

Moving away from the source of EMI generally allows the pacemaker to work normally.

Medical equipment and procedures may affect your child's pacemaker functions:

- No Magnetic Resonance Imaging (MRI)
- X-rays and CT scans are OK

Be sure to notify any medical personnel that your child has a pacemaker.

Security systems at airports, stores:

- Your child should walk normally through security screening archways, but not stop or wait next to the detection equipment.
- The pacemaker may trigger the alarm. Be prepared to present the device identification card.
- Request scanning with a handheld screening device held away from the pacemaker, or request a hand search.

If your child feels "funny" or not right around any electrical equipment, he/she should step away from the area and see if symptoms resolve.

For more detailed information on EMI please refer to the Medtronic pamphlet: “Common Questions About Electrical Interference and Your Medtronic Pacemaker” (2001, Medtronic)

Booklet developed by Laurie Cender, RN, Pam Tran, RN and Jan Rooks, RN, with information from a presentation at the Annual Society of Pediatric Nurses general meeting by Deb Hanisch, RN, MSN, CPNP, November 2003.

ADDITIONAL RESOURCES AVAILABLE

For Your Pacemaker: Patient Manual (Medtronic, 2002)

Common Questions About Electrical Interference and Your Medtronic Pacemaker” (2001, Medtronic)

Common Questions About Pacemakers for Parents of Tots to Teens (Medtronic, 2001)