Heart Pacemakers

What is a pacemaker?
A pacemaker listens to the heart's natural electrical system. It sends an electrical signal to the heart when needed to make it beat like it should.

A pacemaker has two parts
1. The generator, which has a battery and a computer. The pacemaker generator is put under the skin or muscle in the stomach area or in the upper chest.
2. The leads, which are wires that connect the generator to the heart. The leads will be attached either to the outside or inside of your heart.

A pacemaker doctor will decide the best place to put the pacemaker. Placement is based on a person’s size and condition.

Why is it needed?
Special cells in the heart produce electrical signals that cause the heart to beat. If these cells in the heart do not work, a pacemaker may be needed.

How is it put in?
A pacemaker is put in by a doctor in the operating room. Medicine (anesthesia) is given so the patient is asleep during the surgery.

How should the incision be cared for?
Check the incision daily for signs of infection, such as fever, redness, swelling, or drainage. A shower may be taken after one week. Baths can be taken after two weeks. Pat the incision dry with a towel. Do not rub. If strips of tape were used, let them fall off on their own. If the strips of tape are still there after two weeks, they can be removed. Do not use lotions or ointments on the incision for at least six weeks after surgery.

What should I avoid after getting a pacemaker?
For the first month after surgery:
- Do not lift anything over 5 pounds with either arm.
- Do not lift anything over 10 pounds using both hands. A full gallon of milk weighs 8 pounds.
- Do not reach out with the arm closest to the pacemaker or lift it above the shoulder.
For six weeks after surgery:

Do not use a backpack. Ask the school counselor to help get two sets of school books. One set can be used at home and one at school. If there is only one set of books, use a rolling suitcase. Help may be needed to lift the suitcase on or off the bus and up or down steps.

As long as a pacemaker is in place, avoid these things:

- Anything that could interfere with the function of the pacemaker:
  - Large magnets, including MRI procedures or toys with large magnets.
  - Arc welders used in shops.
  - Pottery kilns.
  - Jumper cables attached to a car, large battery chargers, and power substations.
  - Do not lean near running car engines.
- Playing contact sports such as football, hockey, wrestling, and lacrosse. These sports can cause damage to the pacemaker. Please talk to your pacemaker doctor about which sports your child can play.
- Leaning on or standing in security detection machines in stores. These may be tall and free-standing (see picture), or they may be part of the door. Walking through them normally is fine.
- Security wands at security checks must not be placed directly over a pacemaker. **When traveling, take a pacemaker identification card. Let security know about the pacemaker.** They will do a pat-down security check.

Things that are safe

- Most dental procedures, including the drills, x-rays, and ultrasound. If having any medical procedure, please let the doctor, dentist, surgeon, or nurse know about the pacemaker.
- Most household appliances and equipment that are grounded and in good working condition. This includes microwaves, video games, toasters, blenders, space heaters, lawnmowers, vacuum cleaners, drills, and small refrigerator magnets.
- Cell phones, MP3 players, wireless internet modems, large stereo speakers, hair dryers, electric toothbrushes/the toothbrush base, pagers, and sewing machines. Keep these items at least six inches from the pacemaker.

**ALERT:** Call the doctor, nurse, or clinic if there any questions or concerns if a person with a pacemaker:

- Feels dizzy, faints, or is more tired than usual.
- Has signs of infection at the incision site.
- Has special health care needs that were not covered by this information.

This teaching sheet is meant to help you care for your child/self. It does not take the place of medical care. Talk with a healthcare provider for diagnosis, treatment, and follow-up.