

# After Your Pacemaker Generator Change

*What you need to know*

## Who to Call

- If you have questions about your appointments, call the Cardiology Clinic at 206.598.4300.
- If you have a question about your procedure, care after your procedure, or your pacemaker follow-up, call your EP Nurse \_\_\_\_\_ at \_\_\_\_\_ weekdays between 8 a.m. and 4:30 p.m.
- **For all urgent concerns, call 911.**
- Weekends, holidays, or after hours, call 206.598.6190 and ask for the Electrophysiology (EP) Fellow on call to be paged. The EP Fellow is a doctor who works with your primary electrophysiologist. These doctors specialize in caring for patients with pacemakers.

## Wound Care

- Call one of the numbers above **right away** if you have:
  - Redness
  - Swelling
  - Drainage
  - Fever above 99.5°F (37.5°C)
  - Chills
  - Any concerns or questions about your wound
- Remove your dressing (bandage) within 24 hours after your surgery.
- Your wound was closed with skin glue. You may shower 48 hours after your surgery, but do not soak your incision until it is **completely** healed.
- Do not put lotion or powder on your incision until it is **completely** healed.
- Avoid touching the area over or around your pacemaker. Do not poke or twist your pacemaker.

- Add some padding to your seat belt strap if it crosses over your pacemaker implant site. Keep this padding in place until your wound is completely healed.
- **Do not let anyone poke or probe your incision** with fingers or instruments before checking with us first. If a healthcare provider feels this needs to be done to provide your care, have them call the EP Fellow **before** doing this type of exam or procedure.
- Your wound will be checked 7 to 14 days after your surgery. It is **very** important that you go to this appointment and all your follow-up visits.

**See the appointment page you were given by your nurse for the dates and times of your follow-up appointments.**

## Activity Restrictions

### Travel

If you have travel plans in the first 2 weeks after your surgery, please check with your doctor for more instructions.

### Other

- Follow your doctor's instructions about driving and sexual activity.
- Check with your doctor before you do activities that involve swinging your arm (such as swimming, golfing, tennis, or vacuuming) or doing things that can injure your shoulder or wound site (such as shooting a gun, wrestling, or playing football). These restrictions could last 3 months or longer, based on your treatment plan.
- Continue to avoid touching the area over or around your pacemaker. Do not poke or twist your pacemaker.

## Special Long-Term Precautions

### Travel

- Always carry your pacemaker identification card.
- If you must pass through a metal detector, hand your pacemaker identification card to security staff and tell them that you might set off the alarm. You may also want to carry a card with this information in the language(s) of the country (or countries) you will visit or travel through.
- Although some studies show there are no risks to pacemakers from metal detectors, most manufacturers still suggest being cautious.
  - You may walk through the metal-detection arch, but do not stay inside the arch or lean on the sides of the structure.

- If a metal-detection hand wand is used, ask security staff to avoid waving or holding it over your pacemaker.
- If you feel dizzy or have fast heartbeats (*palpitations*) when you are near a metal detector, move farther away. Your pacemaker should begin to work properly right away.
- Body scanners that are used in some airports and other locations will not have any effect on your pacemaker.
- Always carry a complete list of your current medicines. Include their doses, how often you take them each day, and why you are taking them.
- Always carry your medicines with you in your carry-on bags. Do **not** pack them in your checked luggage.
- Carry phone numbers for your healthcare providers in case of emergency.

### **Magnetic Fields**

Magnets or magnetic fields are found in or are created by many items we are around every day. Some of these are:

- Small appliances with motors
- Stereo speakers
- Gas engines
- Cell phones
- Desktop and laptop computers
- Welding machines
- CB radios
- Magnetic resonance imaging (MRI) machines
- Anti-theft devices in stores
- Metal detectors

Most of these items, such as microwaves and blenders, are safe to be close to, but some create magnetic fields that are strong enough to interfere with how your pacemaker works.

Some general recommendations and precautions for sources of magnetic fields are listed on pages 4, 5, and 6. **For more details, contact the manufacturer of your pacemaker.**

**NOTE: All recommendations assume that the equipment you are using is properly grounded, is in proper working order, and is being used for its intended purpose.**

## Cell Phones

**Most** cell phones are safe if you:

- Keep your phone at least 6 inches (15 centimeters) from your surgery site.
- Hold it to your ear on the **opposite side** of your pacemaker to avoid problems.
- Carry your phone in a location that is also at least 6 inches (15 centimeters) away from your implant site. Most cell phones continue to send a signal even when they are not in use.

## Radio Transmitters

Radio transmitters such as CB radios, walkie-talkies, and remote-control toys may interfere with your pacemaker. Here are guidelines for distances to keep from these items:

Watts Generated	Distance to Keep from It
3 watts	12 inches (30 centimeters)
25 to 199 watts	3 feet (1 meter)
200 watts or more	10 feet (3 meters)

If you are unsure about the power output of your radio transmitter, call the manufacturer.

## Car Engines and Tools or Appliances with Small Motors

- Most small appliances or hand tools with motors are safe to use when the item is grounded, in good condition, and is held the recommended distance from your body for safe and proper operation.
- Use caution when working on car engines. Keep your pacemaker at least 24 inches (60 centimeters) away from a running car engine.

## Electric Toothbrushes

- Keep the toothbrush handle at least 1 inch (2.5 centimeters) away from your pacemaker.
- Keep at least 6 inches (15 centimeters) between the charger and your pacemaker.

## Medical Procedures or Equipment

Be sure the person who is doing your procedure knows you have a pacemaker. Never assume everyone involved in your healthcare knows this. It is always safer to be sure and to remind those involved in your care.

Take precautions with these procedures or devices:

- *Electrocautery* (a surgical procedure that uses an electric current to remove unwanted tissue, seal off blood vessels, or create an incision)
- Placement of a *central venous catheter* (a catheter that is placed in a large vein to deliver medicine)
- *Lithotripsy* (a procedure that uses shock waves to break up stones in the kidney, bladder, or ureter)
- Ultrasound (an imaging technique)
- Electrolysis (hair removal)
- External *cardioversion* or *defibrillation* (a procedure to bring an abnormal heart rhythm back to normal)
- Magnetic resonance imaging (MRI) machines

**Note:** At this time, MRI machines **are not safe** for patients with pacemakers to be in or around. But, some new pacemakers can be near an MRI machine. **You must avoid all MRI exams** unless your doctor tells you that your pacemaker is MRI-safe.

- Hearing aid with a coil around the neck that detects sounds and sends digital signals to the amplifier

**Note:** Before using this type of hearing aid, call your pacemaker manufacturer.

- Radiation therapy (usually used in cancer treatment)
- TENS (*transcutaneous electrical nerve stimulation*, a pain-control device)
- Body-fat measuring scales

### **Other Precautions**

Many manufacturers of pacemakers recommend that you also **avoid being around or using these items:**

- Arc welders
- Gas-powered chainsaws
- Induction furnaces such as kilns
- Magnetic (therapy) mattress pads or pillows
- Electric steel furnaces
- Dielectric heaters (heaters that use radiowaves or microwaves to heat)
- Electrical transmissions towers (if you are **inside** a restricted area)
- Jackhammers
- Stun guns

## Dental Work

- Tell your dentist that you have a pacemaker. Usually, you will not need to be concerned that any of the devices the dentist uses will interfere with your pacemaker.
- If you did not need antibiotics for your dental procedures before your surgery, then you will not need antibiotics now that you have a pacemaker. If you have questions, please ask your doctor.

## Your Pacemaker

This handout covers **only** general precautions you may need to take with your implanted device. Each device may have special precautions to consider.

If you have any questions about what might cause problems for your pacemaker, please contact the manufacturer for more specific information about your newly implanted device. Here is contact information for 4 pacemaker manufacturers:

### **Biotronik**

*www.biotronikusa.com*  
800.547.0394

### **Guidant/Boston Scientific**

*www.guidant.com*  
866.GUIDANT (866.484.3268)  
*www.bostonscientific.com*  
888-272-1001

### **Medtronic**

*www.medtronic.com*  
800.551.5544  
800.328.2518

### **St. Jude**

*www.sjm.com*  
800.681.9293  
800.328.9634

## Questions?

Your questions are important. Call your doctor or healthcare provider if you have questions or concerns.

Cardiology Clinic:  
206.598.4300