

Cardiac Rhythm Management

CRT Device Implant

ICD Implant

Pacemaker Implant

Living with your pacemaker, your ICD or CRT device

What is your Device Identification Card ?

Always carry your Device Identification Card with you when you go out, even briefly. This card, which you will be given when you leave the hospital, has important information regarding your device and leads, and your doctor's name and phone number. It also has important information for emergency medical personnel, if you need to be treated. If you move, change your phone number, or change doctors, do not forget to tell your doctor that you need a new Device Identification Card.

What activities can or can't you do?

Always follow your doctor's recommendations regarding the return to your usual daily activities, such as:

- your job,
- sexual activity,
- travel, and
- exercise, recreation, hobbies.

Your doctor may advise you to not engage in activities where a few seconds of fainting or unconsciousness could be dangerous to you or others, such as:



- driving a car
- swimming or boating alone
- climbing a ladder

Your doctor will tell you if and when you can start driving again.

This will be determined by the laws in your state and by your medical condition. Patients with pacemakers, or ICD or CRT devices automatically lose their right to pilot an airplane because of their underlying heart condition. Lightheadedness, fainting, or loss of consciousness caused by your condition are the reasons for concern, not your device.

Returning to your job

Your device should not affect your ability to work, except under special circumstances.

Because jobs and workplaces vary, there is no single answer. Be sure to tell your doctor if you use or are exposed to:

- high voltage electrical equipment,
- strong magnets, like those used in the steel or auto scrap industry,
- radar, or
- other sources of strong electromagnetic interference.

Tell people at work that you have a device and what they should do if you receive a shock. If you have questions about your work or workplace, ask your doctor. He or she can arrange an evaluation to determine if your job might affect your device's function.

Sexual activity

Your device will not interfere with sexual activity. If you receive a shock treatment while someone is in contact with you, they might feel no more than a tingle through the skin.

**Travel**

First, check with your doctor before planning a trip.

Remember to:

- take along your patient information booklet, in case emergency medical personnel have questions.
- ask your doctor for the name of a doctor or heart clinic in the city, state, or country you will be visiting. In case of emergency, you will be prepared to get help.
- always show your Device Identification Card at security checkpoints, such as airports. Ask for a hand search without a hand-held screening wand. Security detectors are unlikely to cause problems if you walk through the “gate” rapidly.
- ask your doctor to arrange a follow-up visit with a doctor in the area you will be visiting if you plan to be away for longer than six months.

**Exercise, recreation, and hobbies**

Exercise is good for the heart, and you are encouraged to lead an active life. You should discuss with your doctor what kind of exercise program is best for you.

Contact sports (such as karate or football) should be avoided since they might cause injury to the skin over the device.

The barrel of a shotgun or rifle should not be held on the side of your chest where the device is implanted.

Deep sea diving should be avoided. You should discuss possible risks with your doctor regarding snorkeling or shallow scuba-diving.

Avoid direct sun exposure to the skin over the implant site, and wear a garment to protect the area.

These activities will not cause dysfunction of your device, but may be contraindicated because of your medical condition.

When do you call a doctor ?

Your doctor will give you instructions about when you should call him or her.

In general, call your doctor if you:

- receive a shock or other therapy from your device and have been instructed to call,
- feel an abnormal heart rhythm and have been instructed to call,
- notice any swelling, redness, warmth, or drainage from any incision,
- develop a fever that does not go away in 2 or 3 days,
- have a question regarding your device, heart rhythm, or medications,
- plan to travel or move,
- notice anything unusual, such as new, unexplained symptoms, or a recurrence of the symptoms that prompted the implantation of your device.

What do you do if you receive a shock from your ICD or CRT-D ?

If you feel a fast heart beat, be prepared to receive therapy from your ICD within a few seconds.

Stay calm and sit or lie down.

If possible, have someone remain near you throughout the event.

Have a friend or family member call the emergency number if you remain unconscious for more than 1 minute.

If you are conscious but do not feel well after receiving a shock, have someone call your doctor immediately. Follow your doctor's orders, including reporting to the emergency room, if instructed to do so.

If you feel well after the therapy and the symptoms do not recur, you may not need to seek immediate medical attention.

When you do call, your doctor or a nurse may ask you the following questions:

- What were you doing immediately before the shock?
- How did you feel immediately after the shock?
- What symptoms did you notice before the shock?

It is important to prepare your family and friends to contact emergency medical personnel and your doctor. Reserve a space for your local emergency phone numbers and information about your current medications. Keep a copy of this information next to your phone for easy access in case of emergency.

If someone is touching you when the ICD delivers a shock, that person might feel a tingle due to a small, harmless amount of current passing through your skin. They might also feel your muscles twitch or see you "jump" slightly or flail, as if startled.

Which equipment including household appliances and tools are safe ?



Your device has been built to be protected against interference by most electrical appliances.

The following are safe to operate if they are in good operating condition and properly grounded (if required):

- microwave ovens,
- televisions, AM/FM radios, video cameras, VCRs, and their remote controls,
- garage door openers,
- countertop appliances, such as toasters, blenders, food processors, electric knives, electric can openers, etc
- hand-held appliances, such as hair dryers, shavers, curling irons, etc.
- major appliances, such as washers, dryers, electric stoves, refrigerators and freezers, dishwashers, etc
- electric blankets and heating pads,
- remote-controlled transmitters for toy cars and airplanes.

Other equipment that is safe to operate or use if in good operating condition and properly grounded:

- personal computers and printers,
- electric typewriters, fax machines, and copy machines,
- machine shop tools, such as electric drills, circular saws, table saws, etc. Keep all tools at least 12 inches (30 cm) from your implant site, whether in chest or abdomen.
- low-power radio transmitters, such as cordless telephones or walkie-talkies.

Also safe to use are:

- spark-ignited internal combustion engines, such as those in lawn mowers, leaf-blowers, and automobiles (if your doctor has not restricted your right to drive)
- battery-operated conveyances, such as golf carts or electric wheelchairs.

Equipment that may not be safe to use:***Cellular phones***

Digital cellular phones can cause EMI if they are very close (within 6 to 12 inches) to the device. The effect is temporary. To avoid interference:

- Do not carry a cellular phone in a breast pocket on the side of the pulse generator, if it is implanted in your chest.
- Do not carry a cellular phone on your belt if the pulse generator is implanted in your abdomen.
- Hold the cellular phone to the ear on the opposite side of the pulse generator implant.

Security detectors

CAUTION : Security detectors may cause temporary interference with your device. Security detectors used in stores and libraries are unlikely to cause problems if you walk through the "gate" rapidly. Once you have walked through the gate, do not remain in its vicinity. If you are concerned, show your Device Identification Card and ask that the detector be turned off while you walk through. The security detectors (both walk-through and hand-held wands) used in airports and government buildings may temporarily interfere with your device.

The metal case of your pulse generator may set off security alarms. Present your Device Identification Card to the security personnel and request a hand search. It is important that security personnel avoid searching you with a hand-held wand.

Other equipment

The following may be sources of strong EMI. Keep them at least 24 inches (60 cm) away from your device:

- stereo speakers in large stereo systems, large radios
- strong magnets,
- industrial equipment such as power generators and arc-resistance welders,
- battery-powered cordless tools, such as drills, screwdrivers, etc.
- antennas used for medium power radio transmitters, such as ham or CB radio, long-distance radio, or satellite telephones,
- high-power loudspeakers (such as those found in public buildings).

Because of sparks or other EMI, stay at least 12 inches (30 cm) away from:

- a running car engine (sparks can cause EMI and some alternators contain strong magnets),
- electric motors, if running,
- furnaces,
- hot water heaters.

Do not use body-fat monitors designed for home use.

Keep away from:

- any radar equipment,
- large TV or radio transmission towers,
- power lines carrying more than 100,000 volts.

What if I have other medical or dental procedures?

CAUTION: Always tell all medical personnel that you have a device.

Most medical and dental procedures will not interfere with your device, including:

- diagnostic x-rays, such as chest, dental, CT scans, and mammography
- dental procedures to clean or repair teeth
- transcutaneous electrical nerve stimulation (TENS) can be used with proper precautions. In particular, the equipment should not be placed directly over the pulse generator.

Other medical procedures or devices produce a high level of interference that could seriously affect the function of your implanted device. You need to discuss their risks and benefits with your doctor. These include:

- lithotripsy, which generates shock waves to break up kidney and gall stones inside your body
- electrocautery, an electronic device used to stop bleeding during surgery
- diathermy, which generates an electric field to apply heat to tissues, such as muscle
- radiation therapy
- therapeutic ultrasound

WARNING:

Magnetic resonance imaging (MRI) is contraindicated for all pacemaker, ICD or CRT device recipients UNDER ALL CONDITIONS. Because the equipment uses very powerful magnets, do not enter a room with MRI equipment, for any reason.

Warning: *This information should not be used as a substitute to consultation from a physician.*