Understanding Your Subcutaneous Implantable Cardioverter Defibrillator

The subcutaneous implantable cardioverter defibrillator (S-ICD) is a device that can protect you against dangerous abnormal heart rhythms. The S-ICD constantly monitors your heart rhythm. It can detect ventricular tachycardia (VT) or ventricular fibrillation (VF). These 2 heart rhythms can be life-threatening if they are not treated.

The S-ICD treats these rhythms by delivering a shock to reset the heart back to a normal rhythm. Your physician will program your S-ICD to best fit your specific needs.

Before the procedure

A staff member from the Electrophysiology Lab will call you with day-of surgery instructions 1 business day before your procedure.

Your physician may order antibiotics for you to take before and after the procedure to lessen the risk of infection.

To prepare for the procedure:
- Do not eat or drink after midnight before the procedure.
- Remove eyeglasses, contact lenses and all jewelry.

S-ICD placement procedure

You will have the S-ICD procedure in the Electrophysiology Lab. The care team will give you medication to make you comfortable during the procedure.

The S-ICD is about the size of a deck of cards. S-ICD is made up of a pulse generator (battery and electrical circuit) and a wire (electrode). The wire carries information about your heart rhythm back to the generator. It is used to transmit needed electrical impulses to your heart.

Usually the S-ICD is implanted in the left side of your chest near your ribcage where the surgeon will make an incision. The surgeon will form a pocket just under your skin for the pulse generator.

Then, the surgeon will make 2 smaller incisions just under your skin next to your breastbone for the electrode. They will connect the electrode and the generator after they confirm that the generator and electrode are in the right place. Your physician will program the S-ICD to best fit your specific needs.
You then will go to a cardiac monitoring unit to recover. The care team will check your S-ICD the next day to see that it is working properly. Most people can then go home. Before you are discharged, you will have a chest X-ray.

Please call the Northwestern Medicine Bluhm Heart Hospital Device Clinic at 312.695.1926 (TTY: 711) to make a wound check visit for 7 to 14 days after your surgery.

**After your surgery**

At home, you will need time to recover from the surgery. It is important for you to listen to your body and rest when you feel tired. Eat a proper diet. Follow up with your physician for scheduled visits.

**Incision care**

- Do not shower or get the wound bandage wet until after the wound check visit 7 to 14 days after surgery.
- When your physician tells you it is OK, you can shower and get the incision wet. Let the water, soap and shampoo trickle over the incision. Do not scrub the incision or the area around it. Pat the incision dry.
- Do not take a bath or submerge the incision in water for 6 weeks.
- Do not put any lotions, creams or gel over the incision.
- The tape strips (Steri-Strips™) over the incision can come off 1 week after your wound check visit.
- Protect your incisions from the sun to avoid sunburn and decrease scarring.

**Activity guidelines**

- Do not drive until your care team gives you instructions about driving at your 1-week follow-up visit. Driving may be allowed after 1 to 6 weeks. This is a topic of concern for most patients. However, it is important to know that you have a heart rhythm that can make you dizzy, faint or even pass out. If you are driving a car when this happens you could injure yourself or others. The S-ICD can treat the abnormal heart rhythm, not prevent it from happening.
- We encourage exercise. It is important to start slowly and then progress as you are able. Rest when you are tired. There are many benefits to a regular exercise program. Talk with your physician to see what options are best for you.
- Do not do exercises or activities that could result in blunt blows to the S-ICD site, such as contact sports.
- Do not go swimming or use whirlpools for 6 weeks until the incisions are completely healed to decrease the risk of infections.
- Do not have dental work for 3 months after the surgery.
When to call your physician

Call your physician if you have any of these signs of infection:

- A temperature more than 100 degrees F
- Redness, swelling or tenderness at the incision site
- Drainage from the incision site

If you get a shock and feel fine:

- Sit down and rest for a few minutes.
- Notify us at the Device Clinic when you have time at 312.695.1926 (TTY: 711) during regular business hours.

If you get a shock and pass out or do not feel well:

- Call 911 or go to the nearest emergency department.
- Keep your ICD ID card in your wallet to show to the emergency staff if they ask.

Follow-up care and visits

After your S-ICD procedure, you will have follow-up visits in the Device Clinic to check that it is working properly. Part of your follow-up involves checking the battery life and function of the S-ICD.

If you have a MyNM account, you can have your wound checked remotely by sending a photo of the incision to the Device Clinic care team instead of coming to the clinic. The clinic staff will contact you if a remote MyNM wound check is right for you.

Visits

It is very important that you keep your follow-up visits. The Device Clinic is located at:

675 North Saint Clair Street
19th Floor, Suite 100
Chicago, Illinois
312.695.1926 (TTY: 711)

7 to 14 days after your surgery

You will need to come back to the Device Clinic for a wound check.

Your wound check appointment is on: ________________________

Remote monitoring

You will have a transmitter at home to send S-ICD data. The transmitter should stay plugged in at all times. The button with a heart on the front of the communicator will flash weekly. When you see the heart button flashing, simply press and release the button 1 time. Stay within arm’s reach of the communicator until the flashing lights go from the left side to the right side of the transmitter.

The transmitter will check your S-ICD for abnormal heart rhythms. It will send the data to the Device Clinic to review if there are abnormalities recorded. Every 3 months, it will send all the data to the Device Clinic to review and send a report to your physician.
The transmitter does not send any data automatically. It will only send data when you press the button.

You will have an in-person visit in the device clinic every 1 to 2 years. At that time, you will also see the electrophysiology nurse practitioner.

**Living with your S-ICD**

*Magnets and electrical devices*
Keep your device at least 6 inches away from all magnetic things. Normal use of properly operating household appliances should not damage your S-ICD. Microwave ovens and cell phones are safe to use. However, do not carry your cellphone in your shirt pocket over your device. When talking on your cellphone, hold it to your ear on the opposite side of your device.

Using electric arc welders or working on automobile ignition systems also will not damage your S-ICD. They can interfere with your S-ICD function. Confirm the safety of the items. Individual situations may vary. If in doubt, a consultant can check your home or work area for interference with your device (ask the Device Clinic nurse for details).

You may have X-ray examinations and computed tomography (CT) scans. You cannot have a magnetic resonance imaging (MRI) test. If you need an MRI, please contact the Device Clinic for instructions. Dental equipment is safe with a few exceptions. Notify your dentist about your S-ICD before you have any dental procedures.

Metal detectors and hand-held wands that are used at airports or federal buildings are magnets. They will not harm your S-ICD, but they can interfere with the shocking function of the S-ICD while you are in the magnetic field. Let security know you have an implanted device. It is OK to use the X-ray scanners at the airport, or you can request a pat down screening. The S-ICD will not set off the metal detector. Carry your S-ICD ID card with you.

**Your device**
You have this implanted device: _________________________
Device company phone number: _________________________

You should receive a temporary ID card from the device company. You will receive a permanent ID card in the mail 3 to 4 weeks after your procedure. **Carry this ID card with you at all times.**

If you have any specific questions about your device, please contact the device company.

It is important to notify all your physicians that you have an S-ICD.

If you have any questions or concerns about your S-ICD or specific tests you need, call the Device Clinic nurse at 312.695.1926 (TTY: 711).