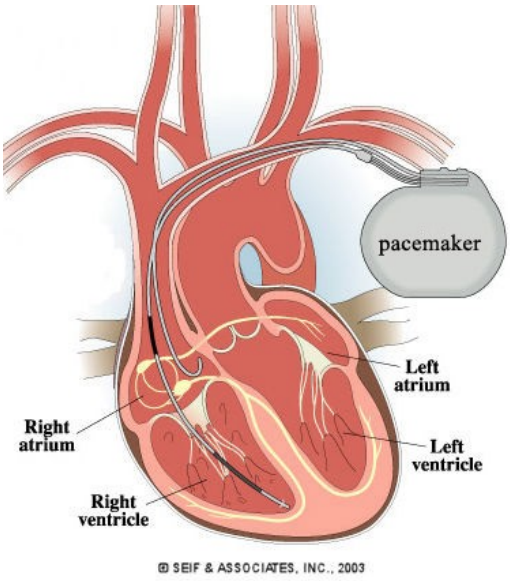
Cardioverter Defibrillator Implantation

The implantable cardioverter defibrillator (ICD) is a device that monitors the heart rhythm. If it detects a dangerous heart rhythm, it either electrically makes the heart beat faster *(pacing*), or delivers a small electrical shock. The patient may not feel the pacing, but the shock may be felt as a strong jolt in the chest.



The ICD is normally used to quickly fix heart rhythms that cannot wait for an ambulance. Rhythms in which the heart has stopped pumping must be changed as quickly as possible.

An ICD may be used for other problems such as:

- Less dangerous abnormal heart rhythms.
- Assisting weakened heart muscle.
- Damage and high risk after a heart attack.

A newer ICD called bi-ventricular (Bi-VICD) uses an extra wire to help both sides of the heart work together. This means that the heart can pump more blood with less effort. Reducing the work of the heart is important to improve the quality of life for people with heart failure.

PROCEDURE

- The ICD is usually placed under the skin near the collarbone, while you are under sedation. An abdominal wall location may be another option.
- Pacer wires are inserted into a vein that lies just under the collarbone, then guided into place under x-ray. The tips of the wires touch the inside of the heart. The near end of the pacer wires are connected to the ICD generator (*battery pack and pacemaker*) under the skin beneath the collarbone.
- In thinner chest walled individuals, it is possible to feel the ICD under the skin, and a slight bump may be seen.
- The pacer wires or leads report the heart's electrical activity back to the ICD and deliver electrical therapy, if needed.
- The ICD can act like a standard pacemaker and pace the heart if it beats too slowly.

HOME CARE INSTRUCTIONS

- Do not shower for a week after the procedure to keep the incision dry.
- Use the arm on the side the ICD was placed as little as possible for at least a week.
- Keep small electrical devices at least 6 inches away from the ICD and use your cell phone on the opposite side of your body.
- Only take over-the-counter or prescription medicines for pain, discomfort, or fever as directed by your caregiver.

IMPORTANT WARNINGS

- You must stay away from strong electromagnetic devices. MRI (magnetic resonance imaging) scans cannot be performed on patients with ICD's.
- Your ICD must be monitored regularly. A device placed on the skin over the ICD can check (*interrogate*) the battery or see how and when any heart rhythms were treated.
- The programming of the ICD can be modified to best suit your needs. Routine monitoring will detect a battery that is nearing the end of its lifespan long before it gives out. When this happens, the current device is removed and a new device is implanted. The leads are usually left in place.
- An ICD is not perfect. **It is always important to have the device checked if you feel a shock**. The device

or your medicine may need to be adjusted.

Document Released: 09/09/2003 Document Re-Released: 03/14/2011
ExitCare® Patient Information ©2011 ExitCare, LLC.