

Implantable Cardioverter-Defibrillators
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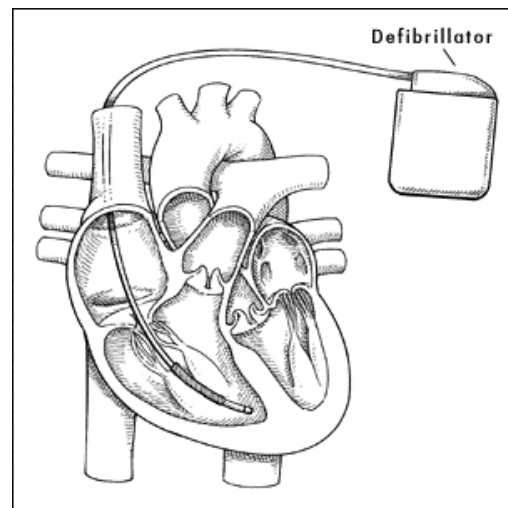
What is an implantable defibrillator? It is similar to a pacemaker. It is a device that briefly passes an electric current through the heart. It monitors your heart rate. It is surgically implanted into the body. It includes a pulse generator and one or more leads.

There are three parts to a defibrillator system: defibrillator, leads, and programmer. The defibrillator is a small metal case that contains electronics and a battery. Leads are thin, insulated wires that are attached to the defibrillator. The programmer is kept in the hospital. It is used by doctors and nurses to monitor and change the settings.

The ICD constantly watches your heart rhythm. If it sees that your heart is beating fast, it delivers the treatment programmed by your doctor. The ICD can do several things:

- **Pacing.** If it isn't too fast, the ICD can deliver several pacing signals in a row. When those signals stop, the heart may go back to a normal rhythm.
- **Cardio version.** In cardio version, a mild shock is sent to the heart to stop the fast heartbeat.
- **Defibrillation.** If ventricular fibrillation is detected, a stronger shock is sent. This stronger shock can stop the fast rhythm and help the heartbeat go back to normal.
- **Pacemaker.** The ICD can also see when your heart beats too slowly. It can act like a pacemaker and bring your heart rate up to normal.

The surgery is pretty simple. A small incision will be made just beneath your collar bone on either the left or right side of your chest. The lead or the wire that goes down into the right ventricle of your heart is fed through the vein and positioned. The generator is then connected to the lead. The generator is implanted in a small pocket in your chest, just underneath the skin.



According to the American College of Cardiology, more than 80,000 Americans currently have an implantable cardioverter-defibrillator. Newer models weigh less than 10 ounces and can be implanted beneath the skin of the chest, without major surgery. They were also found to be moderately cost-effective for preventing sudden cardiac death.