

Implantable Cardioverter Defibrillator (ICD)

The implantable cardioverter-defibrillator (ICD) is a device similar to a pacemaker. It is used in individuals who are thought to be at a higher risk of having a cardiac arrest, which can lead to sudden cardiac death. The ICD is proven to prevent sudden death in these individuals and therefore is a very important aspect of medical management. The most common use is in someone who has already had a cardiac arrest and been successfully resuscitated.

The ICD works by sensing the heart's rhythm (via a lead that is inserted in to the heart). If the heart beats too fast and in an abnormal fashion which does not correct itself, the ICD will detect that the rhythm is abnormal. Such heart rhythms usually result in loss of consciousness. Depending on how it has been programmed most ICDs will try to "pace" the person out of the abnormal rhythm first. If this is unsuccessful the ICD will charge itself and deliver an electric shock that will revert the patient's heart to a normal rhythm.

ICDs also have pacing capabilities, which is like a combined ICD and permanent pacemaker in one box.

Although it is a relatively minor surgical procedure, there are risks to having an ICD inserted, and this would be discussed in more detail before the procedure. Some people subsequently have to have the device removed or changed because of technical issues, and some will receive a shock from the device when one is not needed, or when they are fully awake. If this does happen, the settings on the ICD can be changed to prevent this happening again.

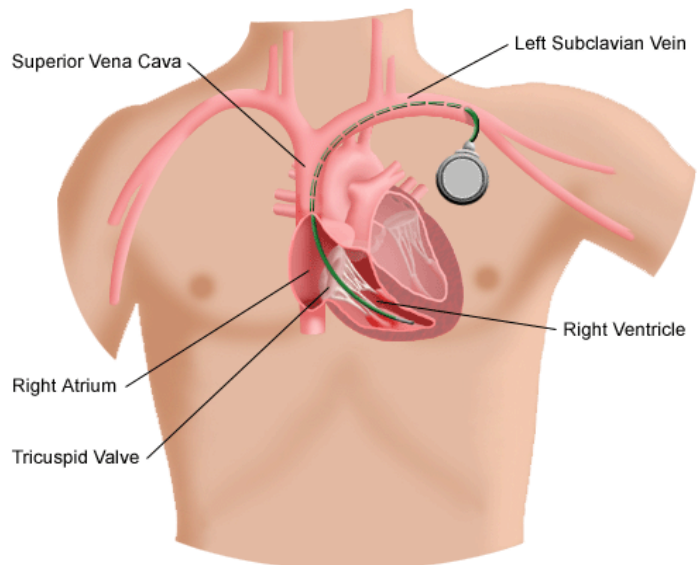
According to local regulations, and depending on the reason for the implant (for example if you have suffered a cardiac arrest), there may be a time-limited restriction on driving after the implant. You will need regular check ups in a specialist clinic every 3-6 months after implant. These tests will check on the function and usage of the ICD, and will indicate when the ICD battery is running down; the ICD will need to be replaced periodically every few years.

In children, ICDs may be implanted in a different way to allow for small body size and subsequent growth. The leads may be placed outside the heart by a heart surgeon, rather than inside the heart.

It is important that you feel well informed before you decide to accept and then live with an ICD, be sure to ask as many questions of your heart specialist as you need.

Try also <http://www.americanheart.org/presenter.jhtml?identifier=3009582>.

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Picture from www.aicdheart.com