

Inserting an Internal Cardioverter Defibrillator

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This fact sheet is for general information about this procedure only. It is not intended to be used as medical advice or to replace advice that your relevant healthcare professional would give you. If you have a particular medical problem, please consult a healthcare professional.

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What is an internal cardioverter defibrillator?

An internal cardioverter defibrillator (ICD) is a device that treats an abnormal heart rhythm. The ICD is usually inserted under the skin just below your collarbone and gives electric impulses or shocks through one or more leads that run down a vein to your heart.

What are the benefits of an ICD?

You may be at risk of developing an abnormal heart rhythm or you may have had an abnormal heart rhythm.

An ICD is designed to sense an abnormal rhythm and give the appropriate electric treatment. If the problem is not too serious, the ICD can give a series of short electric impulses or paced beats (pacing) to restore a normal rhythm. If the problem is more serious, the ICD can give an electric shock (cardioversion or defibrillation).

Are there any alternatives to an ICD?

Some symptoms of an abnormal heart rhythm can be treated using medication such as amiodarone.

If your abnormal heart rhythm is caused by a small abnormal electric area in your heart or by scarring, you may be able to have a catheter ablation.

What will happen if I decide not to have an ICD?

Your doctor may be able to recommend an alternative treatment. However, you may be at a higher risk of having a cardiac arrest and dying suddenly.

What does the procedure involve?

Inserting an ICD usually takes 45 minutes to an hour.

Sometimes the procedure is performed under a general anaesthetic.

Your heart specialist will inject local anaesthetic into the area just below your collarbone.

Your heart specialist will make a cut just below your collarbone and pass a lead down a vein to your heart.

When the lead reaches your heart, it is normal for your heart to beat a few extra times. If you need more than one lead, your heart specialist will repeat this procedure. They will take x-rays to check that the leads are in the right position.

Your heart specialist will create a pocket under the skin just below your collarbone to insert the ICD in.

Your heart specialist will close the cut with dissolvable stitches and glue or tape.

What complications can happen?

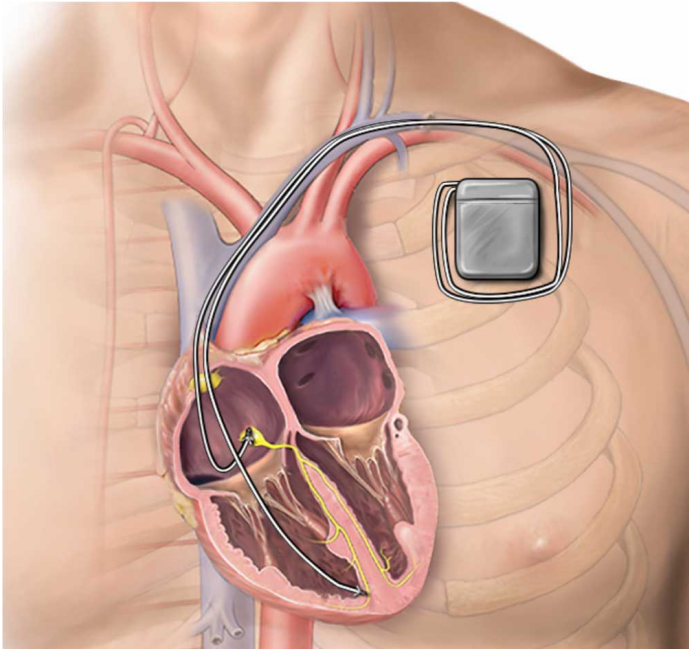
Some complications can be serious and can even cause death.

Complications during or soon after the procedure

- Pain or discomfort
- Bleeding after the procedure
- Bruising where the ICD was inserted
- Blood leaking into the sac that surrounds your heart
- Haemothorax, where blood escapes into the space around your lung
- Pneumothorax, where air escapes into the space around your lung
- A lead moving out of place
- Cardiac arrest
- Allergic reaction to the equipment, materials or medication
- Radiation exposure
- Stroke
- Heart attack

Late complications

- The ICD giving a shock when you do not need one
- Infection of the surgical site
- The ICD battery showing through your skin
- The ICD or lead developing a fault



An ICD

- Developing a blood clot in a vein in your arm
- Heart failure symptoms getting worse
- Electro-magnetic fields interfering with the pacemaker

How soon will I recover?

You should be able to go home the same day or the day after.

It is important not to do strenuous exercise for 2 to 4 weeks, particularly exercise that involves you moving your shoulder.

The type of work you can do may also be affected, particularly if your job involves arc welding or operating machinery.

If your ICD does give you a shock, it can be alarming. It feels like a bang in your chest and can even be strong enough to make you fall over. Remember the ICD was fitted to give you a shock when you need one.

Regular exercise should improve your long-term health. Before you start exercising, ask the healthcare team or your GP for advice.

You may be monitored through your smartphone or a special device called a home monitor box. You will continue to have regular check-ups, usually every 3 to 6 months. The battery will be monitored remotely. You may need a new battery after 7 to 10 years. The battery is replaced and

the leads are checked during a small procedure under a local anaesthetic.

Summary

An abnormal heart rhythm can cause cardiac arrest and even death. Having an ICD inserted may save your life by giving you a shock to make your heart beat normally again.

Keep this information document. Use it to help you if you need to talk to the healthcare team.

Some information, such as risk and complication statistics, is taken from global studies and/or databases. Please ask your surgeon or doctor for more information about the risks that are specific to you, and they may be able to tell you about any other suitable treatments options.

This document is intended for information purposes only and should not replace advice that your relevant healthcare team would give you.

Acknowledgements

Reviewer

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Illustrator

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