British Heart Foundation Your quick guide





Coronary heart disease is the UK's single biggest killer.

For over 50 years we've pioneered research that's transformed the lives of people living with heart and circulatory conditions. Our work has been central to the discoveries of vital treatments that are changing the fight against heart disease.

But so many people still need our help. From babies born with life-threatening heart problems to the many Mums, Dads and Grandparents who survive a heart attack and endure the daily battles of living with heart failure.

Join our fight for every heartbeat in the UK. Every pound raised, minute of your time and donation to our shops will help make a difference to people's lives.





What is an ICD?

An ICD or implantable cardioverter defibrillator is a small electrical device. It is used to treat some types of abnormally fast heart rhythm which can be life-threatening.



How does an ICD work?

An ICD checks your heart rhythm all the time. Some abnormal heart rhythms are very dangerous and will lead to a cardiac arrest.

If your ICD senses a dangerous abnormal heart rhythm it can give you two different types of treatment. This will depend on what type of abnormal heart rhythm your ICD picks up.

- An ICD can work exactly the same way as a pacemaker and give off small electrical signals at a fast rate to try and make your heart beat normally again.
- Sometimes if this doesn't work, or your ICD senses a different type of heart rhythm, it may need to give you electrical shocks (called shock therapy).

A cardiac arrest is when your heart stops pumping blood around your body and you stop breathing normally. Without treatment, someone having a cardiac arrest will die within a few minutes.



Why do I need an ICD?

Some types of abnormal heart rhythm can happen suddenly, without any warning – and are nearly always caused by heart disease. These types are most common if you:

- have had a heart attack
- have a disease of your heart muscle (cardiomyopathy)
- have heart failure

You may need an ICD if you:

- have had a life-threatening abnormal heart rhythm before
- have survived a cardiac arrest
- are at high risk of a life-threatening abnormal heart rhythm due to another medical condition
- are taking medicines or have had certain other treatments to help prevent a life-threatening abnormal heart rhythm from happening again

An ICD is a treatment for some types of abnormal heart rhythm. ICDs do not stop heart attacks from happening.



How is the ICD put in?

An ICD is made up of a small box which contains the battery and electric circuit and one, two or three leads (or wires). It usually takes between one and three hours to put in. You are most likely to be awake, but will be given a local anaesthetic so you shouldn't feel anything.



The doctor makes a small cut just under your collarbone (usually on your left side).





The leads are fed through a large vein and into your heart.



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The ends of the leads are positioned so they are touching your inner heart muscle. This is so they can monitor your heart rhythm and give you the right treatment if needed. Sometimes the leads are attached to the outside of your heart muscle instead, under the skin of your chest.





Once the leads are in place, the doctor will make a small pocket for the ICD box to sit in under the muscle or skin, close to the cut that they made.

Then they attach the ICD box to the leads and close up the wound using either stitches or a special glue.





Malcolm's story

Malcolm was diagnosed with heart failure after having a heart attack in 2003.

"I'd gone to the doctor with chest pains and sweating. I had an ECG and it turned out I was having a heart attack. Later, while I was in hospital, I was told that I had heart failure, which came as a total shock.

For five years, I managed okay but in March 2008 my symptoms started getting worse and I became easily breathless. I couldn't do the garden or climb the stairs.

In 2011, I had an ICD fitted. I was a little nervous about the procedure, but it all went smoothly and soon afterwards I felt an enormous sense of relief."



"Although my **ICD** has never fired, I feel more confident knowing it is there should I ever develop a dangerous heart rhythm."

Malcolm, supporter



What happens afterwards?

Most people go on a heart monitor to check their heart rhythm for a few hours after they have had their ICD put in. Your nurse will also take your blood pressure every so often and keep checking your wound to make sure it is not bleeding and there is no unusual swelling.

You should keep your wound covered with a dressing for a few days. If you have stitches, your nurse will tell you when you need to have them out. You may need to take antibiotics to try and prevent the wound from getting infected, but it's still important to look out for signs of infection once you are home. Let your GP know as soon as possible if you notice anything unusual like more swelling, redness, pain or oozing from the wound.

You need to be careful not to put too much pressure on the arm nearest your ICD (usually your left arm) for a while after you get home. You should also make sure you don't lift that arm up too far. Your nurse will give you clear instructions on the best way to sit up and how far you can move your arm. This helps to prevent the ICD leads from moving before they settle into your heart.



Everyday life with an ICD

An ICD shouldn't affect your day to day life. You may need to make a few changes for a short time, such as not driving for a while and doing less physical activity. Your doctor or nurse will advise you and answer any questions you have.



How long will the battery last?

An ICD battery usually lasts between four and six years. The staff at your ICD clinic will keep a close check on the life of your battery and they will not allow it to run out fully. When the battery is running low you will need to go back into hospital and have a new ICD box fitted.

4-6 YEARS



What does it feel like when the ICD gives its treatment?

If your ICD is acting like a pacemaker you probably won't be able to feel it. Sometimes you can get a fluttering feeling in your chest and feel your heart beating.

If your ICD delivers an electrical shock, it's likely that you will have collapsed or be unconscious when it happens. If you are conscious when the shock is delivered, it may feel like a fairly hard thump in your chest or back.

If someone is touching you when your ICD delivers a shock, they may feel a slight tingling sensation, but it's not dangerous to them.



Can my ICD be switched off?

Your ICD can be switched off (deactivated) if needed, for example if you need to have some kinds of surgery or if your ICD isn't working correctly. If your health worsens and you are near the end of your life, turning off your ICD will help you to die peacefully without unnecessary suffering.



Use this space to make notes for discussions with your doctor.

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Join us in the fight for every heartbeat.

For 50 years the British Heart Foundation has been funding life-saving heart research. Our work has been central to the discoveries of vital treatments that are changing the fight against heart disease. But we need your support to continue this fight.

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Visit bhf.org.uk to make a donation or find out more.

For more information

You can order more information on ICDs, including:

Implantable Cardioverter Defibrillators (booklet) – also available in large print

bhf.org.uk

To order our booklets or DVDs: call 0300 200 2222 email orderline@bhf.org.uk or visit bhf.org.uk/publications

Contact

For more information visit the British Heart Foundation website **bhf.org.uk**

Heart Helpline 0300 330 3311

(a similar cost to 01 and 02 numbers) For information and support on anything heart-related.