

Royal Brompton Hospital

Living with your implantable cardioverter defibrillator (ICD, CRT-D, or S-ICD)



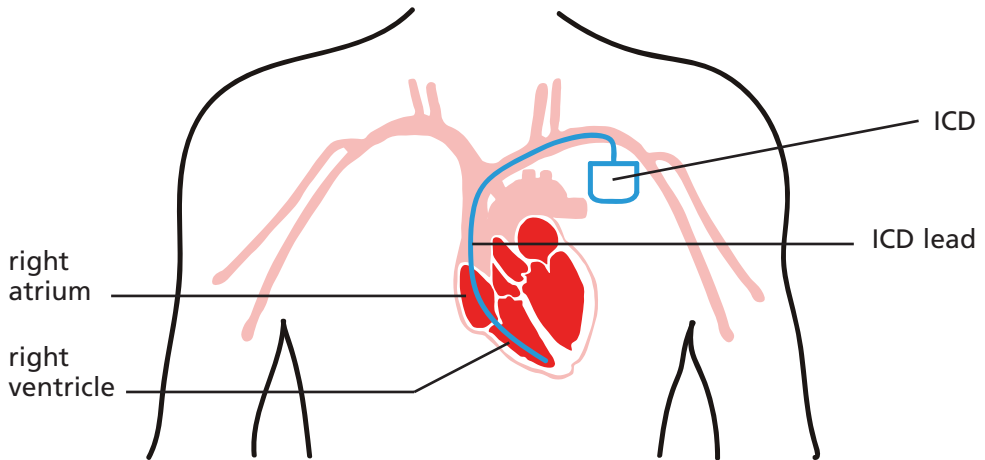


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This leaflet is a general guide on living with and adapting to life with an implantable cardioverter defibrillator. It does not replace personal advice from a qualified healthcare professional. Please ask if you have any questions.

What is an implantable cardioverter defibrillator (ICD)



Picture 1: an ICD

An implantable cardioverter defibrillator (ICD) is a small electrical device fitted in your chest to continuously monitor the heart for abnormally fast rhythms. An ICD is sometimes also called a defibrillator. An ICD is used to treat patients who are at high risk of developing potentially dangerous, fast heart rhythms, known as ventricular tachycardia or ventricular fibrillation. If an ICD detects a dangerous heart rhythm it can deliver one or more of the following treatments:

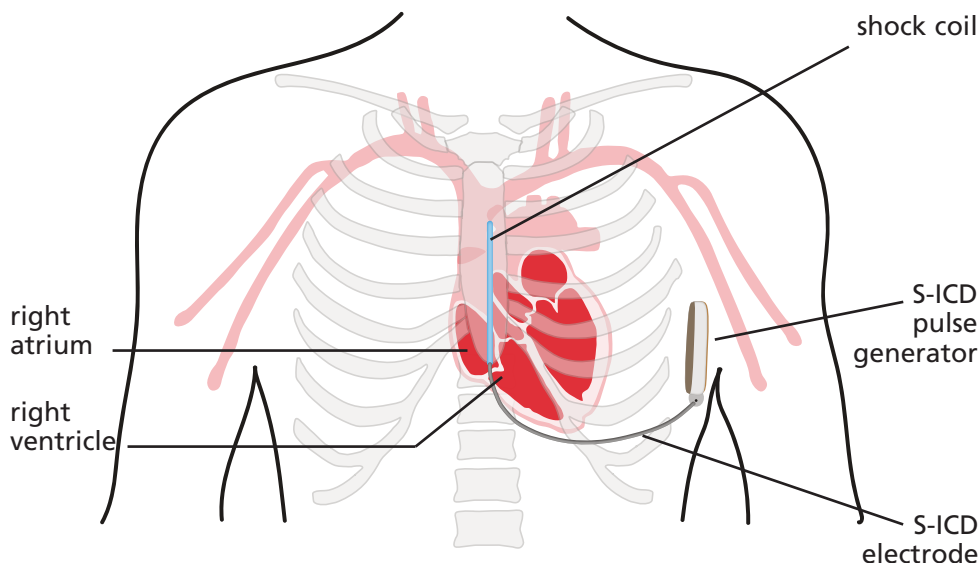
- Anti-tachycardia pacing (ATP) – a fast burst of pacemaker beats to try to stop a fast heart beat and bring the heart back to a normal rhythm.
- Defibrillation – if ATP does not work, the ICD will give you one or more high energy shocks to return the heart to a normal rhythm. This is called defibrillation.
- Bradycardia pacing – works in a similar way to a pacemaker. If your heart beats too slowly the ICD can stimulate your heart and bring it back to a normal heart rate rhythm.

The type of ICD needed depends on your heart condition.

If you have heart failure you may be recommended a more advanced type of device called cardiac resynchronisation therapy defibrillator (CRT-D). This device delivers the same treatments as an ICD, but is also designed to resynchronise (co-ordinate) the heart's contractions. This can improve heart function and reduce heart failure symptoms.

ICDs or CRT-Ds are placed under the skin, usually just below the collarbone (clavicle), usually on the left side of the chest. They are made up of a pulse generator and 1 to 3 electrode leads (thin wires) which connect the pulse generator box to the heart, and monitor the rate and rhythm.

There is also another type of ICD, called subcutaneous ICD (S-ICD). The S-ICD is made up of a pulse generator and 1 lead. The box is placed under the skin on the left side of the chest next to the rib cage and the lead is implanted just under the skin above the breastbone.



Picture 2: Subcutaneous ICD (S-ICD)

What happens before I leave hospital?

Before you leave hospital:

- you have an X-ray to check that the leads from your ICD are fitted correctly
- your ICD is checked to make sure it is working correctly
- we give you a course of antibiotics to help reduce risk of infection
- we review your prescribed medicines and make necessary changes if needed
- we give you:
 - an ICD identification (ID) card with the details of the make and model of your device. You should carry this card with you at all times.
 - a monitoring device or sign you up to a monitoring app compatible with your ICD. An app is a computer programme that you download to a personal mobile device.

Both the monitor and the app will automatically save information about your heart health and ICD function which can be sent to or remotely accessed by our healthcare professionals.

- a date for your follow-up appointment

What should I expect after my ICD is fitted?

After having your ICD fitted you should expect:

- mild bruising around the wound where the ICD has been fitted

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- a little bleeding and/or oozing fluid which may also show on the dressing
 - some pain in the first few days that usually responds well to regular pain relief
 - being able to feel the pulse generator part of the ICD and the leads under your skin – please try not to touch them or move anything out of place
 - your wound will appear to heal within around 7 to 14 days but the layers of body tissue underneath your skin will not fully heal for several weeks

How do I take care of my wound?

Take care of your wound by following these steps:

- take the full course of antibiotics as prescribed to reduce the risk of infection
- keep area around the wound dressing clean and dry
- leave the dressing on for 3 to 5 days

When you remove the dressing:

- carefully wash the wound area with water without rubbing and gently pat the area dry to avoid reopening the wound
- do not use soap, lotions, or perfumes on the wound and surrounding skin for 4 weeks because they may irritate it

For most patients, we use dissolvable stitches to close the wound or a special glue that peels off naturally over time. Sometimes we need to use removable stitches.

Please note:

You also need to contact your GP practice to arrange for a wound review 7 days after having your pacemaker fitted.

At the review, healthcare staff will:

- check that the wound is healing well
- remove any stitches (if you have them)
- look for any signs of infection

When to call for advice

Call the pacing clinic immediately if you have any of these signs after having an ICD fitted:

- lots of bleeding or discharge (oozing fluid)
- a lot of bruising or bruising that does not seem to be getting better
- a build-up of blood under the skin (hematoma) which looks and/or feels like a lump
- signs of infection such as redness, swelling, heat, discharge and pain
- the wound site reopening or taking a long time to heal (more than 14 days)
- being able to see any part of your ICD including the leads
- feeling pins and needles in the arm on the same side of your body as your ICD
- if the pain is getting worse at the wound site 72 hours (3 days) after the pacemaker has been fitted even when you are taking regular pain relief medicine

Pacing clinic – **020 7351 8647**
(Monday to Friday, 9am to 5pm)



For 6 weeks after your ICD is fitted

For 6 weeks after your ICD is fitted you need to take special care of the arm and shoulder on the same side of the body as your pacemaker.

Follow these steps

- Make sure you do not lift the arm above your shoulder to reduce the risk of your pacemaker leads moving
- Gently rotate your arm and shoulder in small circles regularly to keep them mobile. This movement will also stop your shoulder getting stiff.
- Avoid carrying heavy weights or making vigorous, quick movements. For example, avoid doing household chores such as vacuuming and most sports including golf and swimming.

Will I have follow-up appointments?

Yes. You will need to come to the hospital regularly to have your ICD checked by a cardiac physiologist.

You usually have your first follow-up appointment with a cardiac physiologist at the pacing clinic 6 weeks after your ICD is fitted. Then you have 2 more appointments around 6 months and one year after your pacemaker is fitted.

If there are no complications after this time, you will only need follow-up appointments once a year until the pacemaker battery is nearing the time when it will need replacing.

You will also have an appointment with your consultant cardiologist or a member of the consultant's team 3 to 6 months after your ICD is fitted.

Please note:

- When you leave hospital

We will give you a discharge summary that includes an estimated date for an appointment with your consultant cardiologist.

- After you leave hospital

We will send you details with the date and time of your first follow-up appointment with the cardiac physiologist at the pacing clinic.

How long does the ICD battery last?

You will need to have your pulse generator part of your ICD (not the leads) replaced every 5 to 10 years depending on how much you use it. When the battery is approaching end of life, **the ICD may vibrate or make a noise**. If this happens please call the pacing clinic (see Contact details on page 16).

Warning symptoms before an ICD shock

Before your device delivers a shock, you might have some warnings signs that you are having an arrhythmia such as having palpitations, or feeling lightheaded or dizzy. If this happens, ask for help and sit or lie down on the ground.

If the arrhythmia is very fast, you might not have any warning signs and you may lose consciousness before receiving the shock.

How will getting a shock from my ICD feel?

Every patient is different and experiences getting a shock from an ICD differently. It may feel like a heavy thump on your chest or back and it might make you jump. You might find this distressing, especially the first time it happens, but this is the device protecting you from a life-threatening arrhythmia. If you are unconscious you will not feel the shock.

What should I do if I get a shock from my ICD?

- If you get a **shock from your ICD but feel well before and afterwards**, please phone the pacing clinic on **020 7351 8647**. The clinic is open Monday to Friday, 9am to 5pm. Staff will arrange for an appointment at the clinic for you. If you get a shock outside these hours or during a weekend, you should phone the clinic when it is next open.

- If you get a **shock and feel unwell or if you get more than one shock** – please ring **999** as you need an **urgent review**. You will be taken to the accident and emergency (A&E) department at your local hospital. The Royal Brompton Hospital arrhythmia team will be contacted by local hospital staff if needed. Please remember to take your ICD ID card with you.

If you get a shock, another person touching you may feel a light tingling sensation, but it will not be harmful to them.

It normal to feel low or anxious after the ICD delivers a shock treatment. You may find it helpful to discuss how you are feeling with your GP, practice nurse or at the ICD clinic.

Do I need to tell healthcare staff that I have an ICD?

If you are seeing a doctor, dentist or any other healthcare professional, please tell them that you have a pacemaker and show them your ID card. This will allow them to check that any planned treatment will not interfere with your ICD.

You may also consider buying a MedicAlert bracelet which can alert healthcare staff to the fact you have an ICD in an emergency. Find more information online:

www.medicalert.org.uk or by phoning **01908 951 045**.

Can I exercise with my ICD?

Exercise should not generally affect your ICD or the position of its leads after the first 6 weeks of your recovery. Please ask your heart rhythm team for advice about when to start exercising.

However, there is a small risk of damaging your pacemaker as a result of very forceful contact, so you should avoid heavy contact sports, such as rugby and kickboxing.

Can I travel abroad?

There are no formal restrictions to travelling abroad. Please remember to take your ID card with you to show to security staff and make sure that you have adequate medical insurance.

Airport security staff may do a hand search or check you with a handheld metal detector. In some countries, the authorities will insist that you walk through the electronic security gates. If this happens, just walk through the gates. It is unlikely that your pacemaker will be affected.

If you plan to be away for a long time, contact the pacemaker clinic (see Contact details on page 16) to arrange your follow-up appointments in advance.

Will security scanning equipment affect my ICD?

Security devices in shops and libraries are unlikely to affect your ICD. However, it is best to walk through them as quickly as you can.

Please remember to show your ICD ID card to airport staff before you go through the security checks and follow their instructions.



Can I drive with an ICD?

If you have a driving licence, you must tell the Driver and Vehicle Licensing Agency (DVLA) and your insurance company that you have an ICD. This is because abnormal heart problems can affect your ability to drive safely.

You must not drive for between 1 to 6 months following your ICD implant. The amount of time depends on the reason your doctor has recommended the ICD.

You must also stop driving for at least 6 months and inform the DVLA if you have symptomatic ATP and / or shocks from your ICD at any time.

Please ask your cardiologist or healthcare staff at the ICD clinic for further advice.

For more information, please see the DVLA website:
www.gov.uk/defibrillators-and-driving

Can I have an MRI scan?

You may be able to have an MRI (magnetic resonance imaging) scan. Most modern pacemakers and leads are MRI compatible. If you need MRI scans in the future, you must inform the scanning department that you have an ICD and present the ID card we give you after your ICD is fitted.

Will household items affect my ICD?

ICDs can be affected by strong magnetic or electrical fields.

Electrical appliances

Problems with household electrical appliances are rare because ICDs have a metal casing to shield them from interference and can detect and remove unwanted electrical activity.

Household equipment such as ordinary radios, fridges, cookers, remote controls, televisions, electric razors, computers and microwaves should not affect your ICD.

Mobile phones

Keep your mobile phone at least 15cm (6 inches) away from your ICD. This simply means using it on the opposite side of your body from where your ICD is fitted.

Do not keep your mobile in a shirt or jacket pocket close to your ICD even if the phone is switched off.

Magnets and magnetic equipment

If a magnet is very close to your ICD, it may cause the pacemaker to pace constantly. You should avoid placing magnets or magnet containing devices close to your ICD and avoid very strong (industrial) magnets.

NIV or CPAP equipment

Face masks and nasal prongs used with machines that support breathing may contain magnets.

Check the manufacturer's instructions for face masks or nasal prongs used with these types of machines:

- NIV (non-invasive ventilation)
- CPAP (continuous positive airway pressure)

Gardening equipment

Gardening equipment is safe to use, but do not let the power cables come into contact with your ICD.

If you have any concerns about any equipment or devices, please call the pacing clinic (see Contact details on page 16).



Will my sex life be affected?

An ICD should not affect your sex life. However, you should avoid positions that place pressure on your wound, arms and chest for the first 6 weeks of your recovery.

Please follow our advice on arm movement (see For 6 weeks after your ICD is fitted on page 8).

Sex aids or toys such as vibrators, are usually safe to use.

If you receive a shock during sex, your partner may feel a tingling sensation. The shock is not harmful to your partner.

For further information please go to British Heart Foundation www.bhf.org.uk.

When can I go back to work?

You should be able to go back to work as soon as your wound is fully healed, and it feels comfortable. You are advised to take 6 weeks off work if your job involves manual handling and / or heavy lifting.

It is also important to remember that some jobs and working environments can affect your ICD.

These include:

- arc welding
- areas where industrial magnets are used – scrap metal yards, for example
- television, radio or radar transmission equipment
- military installations
- jobs that involve carrying hi-fi or PA speakers, or any other equipment containing magnets

There are some forms of employment that you will not be allowed to return to, after having an ICD fitted. This is for your own safety and the safety of others. These are:

- operating a heavy goods vehicle or public service vehicle
- taxi driver
- train driver
- airline pilot
- scaffolder or roofer, or similar occupations

If you have any concerns about work, particularly if you work in any of the areas mentioned here, please speak to your consultant.



Contact details

Pacing clinic **020 7351 8647**
(Monday to Friday, 9am to 5pm)

EP (electrophysiology)
clinical nurse specialist **020 7351 8364**
(Monday to Friday, 8am to 5pm)
Email: **gstt.epnursesrbh@nhs.net**

Wards:

Squire Centre **0330 128 8121** extension **82960**
(Monday to Friday, 7am to 8pm)

York ward **020 7351 8592** (24 hours)

Paul Wood ward **020 7351 8598** (24 hours)

Useful information

For more general information about pacemakers, visit:

- British Heart Foundation
www.bhf.org.uk
- Arrhythmia Alliance
www.heartrhythmalliance.org



If you have concerns about any aspect of the service you have received in hospital and feel unable to talk to those people responsible for your care, call the Patient Advice and Liaison Service (PALS) on:

- Royal Brompton Hospital – 020 7349 7715
- Harefield Hospital – 01895 826 572

You can also email gstt.rbhh-pals@nhs.net. This is a confidential service.

Royal Brompton Hospital
Sydney Street
London
SW3 6NP
Phone: 0330 12 88121

Harefield Hospital
Hill End Road
Harefield
Middlesex
UB9 6JH
Phone: 0330 12 88121

Website: www.rbht.nhs.uk

Royal Brompton and Harefield hospitals are part of Guy's and St Thomas' NHS Foundation Trust

إذا كنت ترغب في الحصول على ترجمة فورية لمضمون هذه الوثيقة إلى اللغة العربية، يرجى منك الاتصال بأحد مستخدمينا بجناح المصلحة التي يتم فيها استشفائك. أحد موظفينا سيسعى لترتيب إجراءات الترجمة وإتمامها في الوقت المناسب لك.

Brosurteki bilginin Türkçe tercumesi için tedavi görüyor olduğunuz bölüme bas vurunuz. Bölüm personeli tercümenin gerçekleşmesini en kısa zamanda ayarlayacaktır.

