



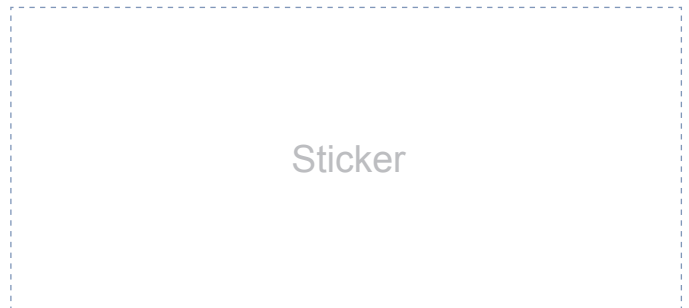
Cardiac Resynchronisation Therapy Defibrillator (CRT-D)

Reviewed: June 2025
Next review: June 2026
Version 8

➤ Important contact numbers

Arrhythmia Nurse: 07970187324
Coronary Care Unit: 0141 951 5202
Ward 2 East: 0141 951 5250

➤ Follow-up Centre



➤ About this leaflet

The purpose of this leaflet is to provide information about Cardiac Resynchronisation Therapy with a Defibrillator and what you should expect during the course of your treatment.

➤ Why is an CRT-D device implanted?

A Cardiac Resynchronisation Therapy Device (CRT-D) is implanted in patients suffering from forms of heart failure with a higher risk of having tachyarrhythmias (abnormal heart rhythms).

The CRT component of the device is designed to treat heart failure by helping your heart pump blood more effectively. Over time, this can improve the heart's function and decrease your symptoms, such as shortness of breath and fatigue.

The Defibrillator component is designed to treat fast or abnormal heart rhythms (tachyarrhythmia) which can cause symptoms such as light headedness, palpitations and loss of consciousness. In some cases these fast or abnormal heart rhythms can be life threatening.

➤ How a CRT-D device works

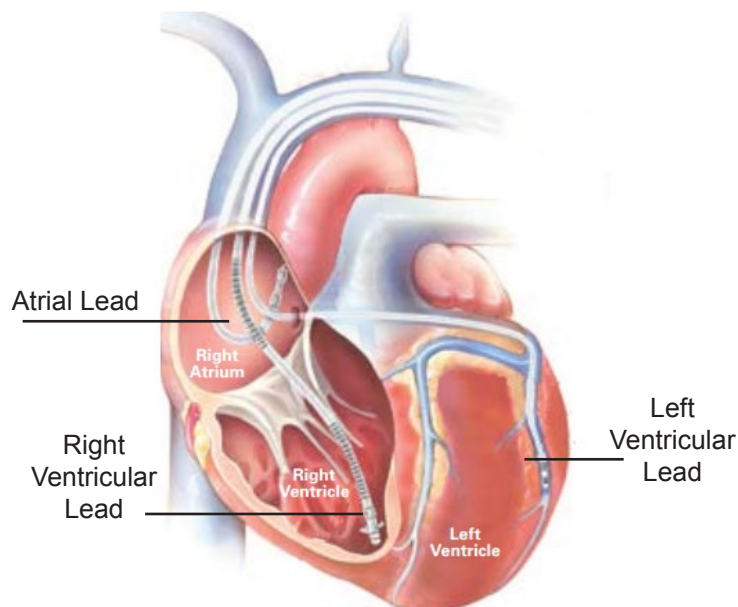
The CRT component works by simultaneously sending pacing impulses to both ventricles (pumping chambers of the heart) via pacemaker leads which are inserted to the right and left sides of the heart.

This improves the overall pumping function of your heart and, over time, can improve your heart failure symptoms. It is important to note these symptomatic improvements do not usually happen immediately and can take a number of weeks or months.

The defibrillator component continuously monitors your heart rate. If your heart rhythm changes from a normal heart rhythm to a fast/abnormal heart rhythm, the device would detect this and treat it appropriately.

There are 2 ways in which the device can do this:

- **Anti-tachycardia Pacing (ATP):** The device will deliver a short burst of fast pacing to try and interrupt the arrhythmia and return your heart to a normal rhythm. You may be aware of palpitations but this will not be painful.
- **Shock Therapy:** The device will deliver a shock to re-set your heart's rhythm. Many patients describe the feeling as like a kick or jolt in the chest. This pain will only last for a few seconds.



➤ After you have your CRT-D implanted

For the first 6 weeks following your implant, it is important not to over use your arm on the implant side to allow the leads to settle into the heart muscle and for tissue to grow around them, holding them in place.

You should avoid raising your arm above shoulder height or carrying anything heavy, such as shopping bags, during these first few weeks.

Wound Care:

- Leave your wound site covered for first 2 days after your procedure.
- On the third day, remove your dressing and shower or bathe as normal, allowing clean water to run over your wound and pat it dry with a clean towel.
- Do not rub the area with soap, perfumed products, or a towel. If your wound site appears to be healing with no signs of fluid/discharge then leave it exposed; there is no need for further dressing. Continue this daily until wound is completely healed.
- To prevent infection, make sure you wash daily, using a clean towel at all times and wearing clean clothes.

If you think you have an infection at your wound site, contact your device follow-up centre.

Signs of infection include:

- Heat or redness at site.
- Pus/discharge.
- Swelling.
- Smell.
- Increased pain.

You will be advised about your medication prior to being discharged from the ward.



CRT-D follow up

Your first follow up appointment will take place approximately 6 weeks after your implant and you will have regular follow up appointments at 3 months and every 6 months after that. The Cardiology Department at your follow up hospital will keep you informed of your future appointments.

If you do not receive an appointment letter, it is important to contact Cardiology Department at your follow up hospital.

It is important that you attend your appointments as this will allow the team to check your device lead function and its battery.

There may be an option for monitoring your device from home. This may be through an app on your mobile phone or a box that sits at your bedside. This will be discussed at your follow up clinic.

Device battery

The battery in your device will normally last between 5 and 10 years. As you get nearer to having this replaced, you will need to attend the Cardiology Department at your follow up hospital more frequently.

Having the battery replaced requires a theatre procedure similar to your initial implant. Normally the same scar site is used but the procedure can be much quicker, unless there is a problem with any of your leads.

What to do if you receive therapy from your device

If you receive **1 shock** from your device, you **do not** need immediate medical attention. You should let the Cardiology Department at your follow up hospital know as soon as possible so that they can arrange to see you to assess the event.

If you receive **multiple shocks** over a short period of time, or feel unwell after therapy is delivered, you should **call 999 immediately** as this is an emergency requiring urgent medical attention. Several shocks can mean the device is struggling to treat an arrhythmia, or there is a problem with the device.

Driving

Primary prevention (prophylactic/ have not experienced any arrhythmia): The Driver and Vehicle Licensing Agency states that **you must not drive for 1 month**. You must notify the DVLA.

Secondary prevention (you have previously experienced an arrhythmia): The Driver and Vehicle Licensing Agency states that **you must not drive for 6 months**. You must inform both the DVLA and your car insurance provider.

The form to be completed can be found using the web address below.

www.gov.uk/defibrillators-and-driving



Note:

If you receive appropriate therapy from your device at any stage, this means that you will not be able to drive for another 6 months.

If the therapy delivered is deemed to be inappropriate by the Cardiology Department at your follow up hospital follow up centre you will be unable to drive for 1 month.

If you continue to drive after being advised not to, your insurance will be deemed invalid.

Further information on DVLA and medical conditions can be found at the following website. Please review regularly as the DVLA may update/change the driving criteria at any time.

www.gov.uk/health-conditions-and-driving

Safety information

Most household appliances are safe to use with your CRT-D implant. Mobile phones should be used on the opposite side to your implant. All power tools should also be kept at arms' length.

You cannot undergo a Magnetic Resonance Imaging (MRI) scan unless you have been fitted with an MRI compatible device. If you are referred for an MRI scan, the doctor performing the scan (the radiologist) will need to check with your cardiologist / cardiac physiologist whether your device is 'MRI safe' or not. Even if the device is MRI safe, there are still precautions which may need to be taken.

CRT-D's can be sensitive to strong electromagnetic interference (EMI). If your employment requires you to be close to large industrial generators or other sources of EMI, you may need to take extra precautions. You should discuss any issues or concerns with your employer before you return to work.

As a rule if you begin to feel unwell using any equipment, stop and remove yourself from the area.

If you have any questions or concerns about safety of equipment, please contact the Cardiology Department at your local hospital for advice.

CRT-D ID card

You will be provided with a CRT-D identification card which includes your personal information, along with details of the device and leads you have implanted, the implanting physician and your hospital.

You must keep your ID card on you at all times as you may be required to provide it at any doctor/dentist/hospital appointments.



Travelling

When travelling ensure you:

- take your ID card with you;
- Inform your travel insurance provider that you have a CRT-D implant; and
- obtain information on the nearest hospital to your destination.

Airport Security

You may need to show your ID card when going through airport security so that staff know you have a CRT-D implant and can make a decision on whether to search you by hand rather than using the security gate/metal detectors.

If you are asked to walk through metal detectors it is safe to do so but you will set off the alarms.

All of our publications are available in different languages, larger print, braille (English only), audio tape or another format of your choice.

我們所有的印刷品均有不同語言版本、大字體版本、盲文（僅有英文）、錄音帶版本或你想要的另外形式供選擇。

كافة مطبوعاتنا متاحة بلغات مختلفة و بالأحرف الطباعية الكبيرة و بطريقة بريل الخاصة بالمكفوفين (باللغة الإنكليزية فقط) و على شريط كاسيت سمعي أو بصيغة بديلة حسب خيارك.

Tha gach sgrìobhainn againn rim faotainn ann an diofar chànanan, clò nas motha, Braille (Beurla a-mhàin), teip clàistinn no riochd eile a tha sibh airson a thaghadh.

हमारे सब प्रकाशन अनेक भाषाओं, बड़े अक्षरों की छपाई, ब्रेल (केवल अंग्रेज़ी), सुनने वाली कसेट या आपकी पसंदनुसार किसी अन्य फॉरमेट (आरएफ) में भी उपलब्ध हैं।

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ہماری تمام مطبوعات مختلف زبانوں، بڑے حروف کی چھپائی، بریل (صرف انگریزی)، سنے والی کست یا آپ کی پسند کے مطابق کسی دیگر صورت (فارمیٹ) میں بھی دستیاب ہیں۔



: **0141 951 5513**