

Cardiac Resynchronisation Therapy – Defibrillator (CRT-D)



i Important information for all patients requiring resynchronisation therapy.

Important contact numbers

If you have any enquiries, please do not hesitate to contact Ward 2C.

Please note that Ward 2C is closed from Saturday at 1.45pm to Sunday at 1.45pm. If you need help during these hours, please contact the Coronary Care Unit (CCU).

Golden Jubilee National Hospital

Switchboard:	0141 951 5000
Coronary Care Unit:	0141 951 5202
Ward 2C:	0141 951 5203

You will have your follow up at:

You can contact them on:

Next of kin:

Other emergency contacts:

About this booklet

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

Why is a 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).

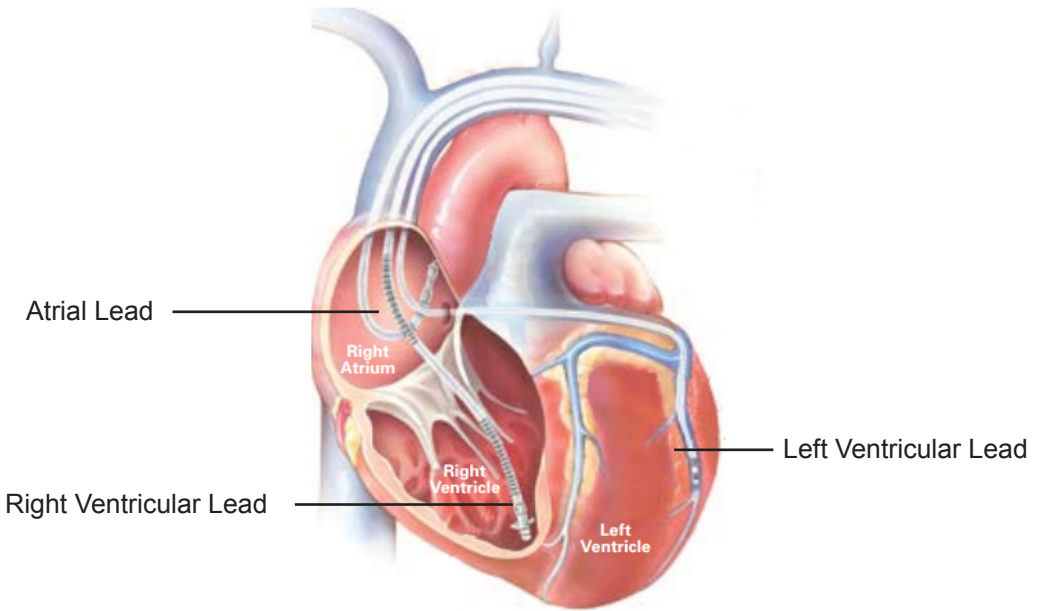
The CRT component of the device is designed to treat heart failure by helping your heart pump blood more effectively. Over time, this can improve the heart's function and decrease your symptoms, such as shortness of breath and fatigue.

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 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 two 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 six 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 two 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 six weeks after your implant and you will have regular follow up appointments at three months and every six 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.

You may also be referred for a CRT Optimisation procedure around three months after your implant. This will involve an Echocardiography scan of your heart. This procedure will take place in the Cardiology Department at the Golden Jubilee National Hospital.

Patients with Atrial Fibrillation will not be referred for this procedure.

Device battery

The battery in your device will normally last between five 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 **one 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 one 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 six 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 six 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 one 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.

More detailed information on safety can be found in the CRT-D's manufacturer's booklet provided to you. 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.

The ID card is issued by Eucomed Medical Technology and is larger than the standard ID card issued to Implantable Pacemaker recipients. It usually comes with hand written details of your device and your personal details on it, and folded to A6 card size.

Travel

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.

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