University Hospitals Dorset
NHS Foundation Trust

Biventricular Implantable Cardioverter Defibrillator/ Cardiac Resynchronisation Therapy with Defibrillator CRT-D

Cardiac Intervention Unit Discharge Information

You have now had your Biventricular Implantable Cardioverter Defibrillator or Cardiac Resynchronisation Therapy with Defibrillator (CRT-D) sited and are preparing to go home. This leaflet is designed to give you some practical information to aid with your recovery and to assist in adjusting to life with a CRT-D.

Recovering at home

Initially you may be anxious about going home. This is only natural. However, with help and support you should rapidly regain your independence and return to a normal lifestyle. If you would like to talk to someone about how you are feeling there are people who will be able to help. Please contact the Arrhythmia Nurse Specialists.

For at least one week it is important that you are careful with any activities that involve using the arm on the side on the CRTD. Anything repetitive like golf/ swimming/vigorous sports, avoid for six weeks. You should avoid lifting the arm above your shoulder level or using it energetically. This includes such activities as hanging clothes on a washing line, hoovering and heavy lifting. This will give time for extra tissue to grow around the leads of the CRT-D and prevent them moving out of place. However, you must do gentle exercises of your arm to ensure that the movement of the shoulder does not become restricted.

Wound Care Advice for Patients.

The cut has been closed with dissolvable stitches. It will take a few days to heal completely. During this time it is important that the wound is kept clean and dry.

The CRT-D is of small size and weight. You may be able to feel the device and the leads attached to the device under the skin. However, do not try to move the device or the leads.

The wound site will feel sore for a few days after the procedure. Regular, over the counter painkillers, such as paracetamol or cocodamol should minimise any discomfort you are feeling. It is normal to have some bruising around the area, particularly if you are on blood thinning medication.

Do not soak the cut, but bathe and shower with care. Keep the wound dry for the first five days. Prolonged exposure to steam may loosen the dressing. After the cut has healed you may bathe as normal, using your usual soap or shower gel. Remove the dressing as advised by the arrhythmia nurse.

Do not put direct pressure on the cut, such as lying face down while it is still sore. It may feel sore to wear a seatbelt over the site of the device, so wear your seatbelt on the opposite side of the body. **Having a defibrillator does not make you exempt from wearing a seat belt.**

Do not use ointments or creams over or around the cut.

Day 3 - date:..... remove dressing

Do not clean or touch the site and apply a clean dressing. Contact the ANS with any concerns.

Day 5 - date:..... remove dressing

You can now get the site wet but do not wash it yet.

If you have a temperature or fever, or if you notice any of the following around the pacemaker site:

- skin ulceration
- soreness
- increased swelling and/ or warmth
- redness
- itching.

Please contact the arrhythmia nurses (Monday to Friday 9am-6pm) on **0300 019 6154**. Outside these hours, please contact Ward 23 on **0300 019 4085/4086**

Getting back to normal

Get back to normal as soon as you can! It is normal for many emotions such as anxiety, fear, anger and relief, to come and go. Talk about your concerns and feelings with someone else as this can make it easier for you to adjust with living with an CRT-D.

If you and/or your partner feel that you would benefit from speaking to someone with a CRT-D you will be invited to join our online, private community ‘Beating together’. This gives you the opportunity to connect, communicate and read information related to CRT-D/ICDs. If this is of interest, please share your email address with an arrhythmia nurse and they will send you an invitation to the group.

Do I need to tell anyone that I have an CRT-D?

It is important to carry your CRT-D identification card at all times. This contains information about the make, model and settings of the CRT-D. Your General Practitioner will be informed of your CRT-D by the hospital. If you are seeing another Doctor or a Dentist or, in an emergency, the casualty service, inform them that you have a CRT-D.

When will I be able to drive?

The Driving and Vehicle Licensing Agency (DVLA) have guidelines in relation to patients who require a defibrillator and whether they are safe to drive.

There will be some restrictions, but these will vary according to why you had the defibrillator implanted. Please check with the arrhythmia nurse if you are unsure.

Generally, if you have had the defibrillator fitted because you are at risk of abnormal heart rhythms (prophylaxis or primary prevention) you will not be able to drive for one month.

If you have had the defibrillator implanted because you have already experienced abnormal heart rhythms (secondary prevention) you cannot drive for six months.

You will need to inform the DVLA that you have had a biventricular defibrillator (CRT-D) implanted.

If you drive for a living or hold a Group 2 (bus/lorry) licence, please check what restriction apply with the arrhythmia nurses or the DVLA.

You can access the DVLA guidelines at **www.gov.uk/driving-medical-conditions**

You must inform the DVLA and your insurance company that you have had a device implanted. Failure to do so may invalidate your insurance.

When can I return to work?

There are no hard and fast rules about when to return to work as everyone is different. Speak to your doctor about returning to employment and discuss your CRT-D with your Occupational Health Department or Health and Safety Advisor if necessary.

Can I travel abroad?

Yes it is perfectly safe for you to travel as long as your general health allows. At the airport always show your CRT-D identification card to security staff and ask to be searched by hand. Hand-held wand-type devices can temporarily interfere with your CRT-D. You can walk straight through the metal detector archway but must not linger underneath this. The metal casing of the device may cause the security alarm to be activated.

You will need to inform the insurance company that you have a CRT-D. Some insurance companies require written confirmation that you are able to travel. Although unable to recommend any particular company we can provide a list of companies that are happy to consider insuring people travelling with a CRT-D.

If you are concerned about going on holiday with a CRT-D, the Arrhythmia Nurse Specialists can provide addresses of national and international CRT-D centres should you require assistance while you are away. Please inform the Arrhythmia Nurse

Specialists of your planned holiday and the relevant information for your destination can be obtained.

What should I do if a have a shock?

Some patients experience palpitations or feel dizzy or light-headed before they receive a shock. If this is the case inform someone that you are feeling unwell and sit or lie down.

You may collapse from your abnormal heart rhythm and come round a short while later having received a shock. Or you may feel unwell due to your abnormal heart rhythm and receive a shock while conscious. In both of these situations the CRT-D is functioning appropriately. In these circumstances please contact the Arrhythmia Nurse Specialists (within normal office hours) so that we can arrange for you to come in to the clinic to have the CRT-D checked and for us to be able to review exactly what happened. If this occurs at night or at the weekend and you do not feel unwell, you may wait until the following morning or the Monday morning before contacting us.

You may receive a shock without feeling any symptoms in which case you need to contact the Arrhythmia Nurse Specialists (within normal office hours) or attend the Emergency Department if this occurs out of office hours. This needs to be done as soon as possible as in these circumstances it may be that the CRT-D has delivered a shock inappropriately and it needs to be checked.

In any circumstance, if you continue to feel unwell following a shock or if you are given more than one shock, dial 999 for an ambulance. It is very important to take your ICD card with you whenever you attend hospital. If the hospital is not the Royal Bournemouth Hospital please make sure the staff contact us to let us know you have had a shock.

You may hear your device alarm, or feel it vibrate, within your chest. If this happens it is important you contact us so we can check the reason for it alarming.

If it alarms during office hours contact
Arrhythmia Nurses **0300 019 6154** or the Cardiac Department **0300 019 4129**

If it alarms out of hours contact
Coronary Care Unit (CCU) **0300 019 4156**

Is there any equipment that may affect my device?

Equipment that uses electricity and magnets has electromagnetic fields around them. These fields are usually weak and will not affect your CRT-D. Strong electromagnetic fields can cause electromagnetic interference (EMI) and affect the functioning of your CRT-D.

The majority of everyday mechanical and electrical devices will not affect the function of the CRT-D as long as they are properly maintained. Household appliances such as radios, cookers, computers, dishwashers and microwaves can all be used as long as they are in a good working condition.

EMI can be caused by close contact with certain procedures, activities and equipment. Try and avoid:

- Direct contact with car ignition systems whilst the engine is running (during car maintenance)
- Welding equipment
- High powered radio equipment and television transmitters

- Standing next to large stereo speakers (e.g. those found at concerts)
- Electric drills
- Carrying strong magnets or placing a magnet over your chest.
- Power generators
- Induction hobs

Mobile phones are safe but should be kept approximately 15cms (6 inches) from the CRT-D. When making phone calls the mobile should be held to the ear on the opposite side of the CRT-D. When carrying a mobile phone do not store it in a pocket on the same side of the CRT-D.

Anti-theft security gates at shops and banks provide a very small risk of interfering with the CRT-D. Walk through doorways normally but do not wait around in the area of the security system.

If you are admitted to hospital it is important that you tell any staff looking after you that you have an CRT-D. Some medical procedures may affect your CRT-D. The procedures where special precautions need to be taken or that you should avoid include:

- Magnetic Resonance Imaging (MRI) - this is a diagnostic test that uses a strong electromagnetic field and can severely damage your ICD
- Diathermy and electrocautery - these are generally used in surgical procedures and may affect the function of your CRT-D. Adjustments can be made to the device before any surgical procedure is done to prevent any dysfunction.
- Therapeutic radiation treatment for cancer - special precautions will need to be made to protect your CRT-D.
- Transcutaneous electrical nerve stimulation (TENS) - this is a device used for pain relief and may affect the function of your CRT-D.

Most other medical procedures will not affect your CRT-D. If you have concerns about the safety of equipment in relation to your CRT-D, please contact the Arrhythmia Nurse Specialists.

Follow up care

It is important that you attend the follow-up clinics. The first CRT-D check is around four weeks after the CRT-D is fitted. The appointment will automatically be made for you.

After the first CRT-D check, if there are no problems, your follow-up appointments will be every six months. The CRT-D clinics are held in the Cardiac Intervention Unit, Royal Bournemouth Hospital and are managed by the Cardiac Physiologists with the involvement of Arrhythmia Nurse Specialists.

During the follow-up clinics your CRT-D will be examined by placing a programmer head over the device site. This enables the battery levels and functioning of the device to be checked. Appropriate programming changes may also be made if required.

The wound will also be checked for any swelling, redness, soreness or oozing of fluid.

You can use this opportunity to discuss any anxieties or concerns you may have. If you would like to speak to someone before this time please contact the Arrhythmia Nurse Specialists.

In recent years it has become possible to monitor CRT-D's remotely. This means information normally gained from a follow up appointment can be obtained via a communicating box which you have in your home. Remote monitoring will be discussed with you at your first appointment after having your CRT-D fitted.

Changing the ICD Battery

The battery life of a CRT-D is approximately four to seven years. The battery life is checked at every follow-up appointment. It will NOT be allowed to run down!

Further support and advice

If you or your family would like to speak to someone about your ICD please contact:

Arrhythmia Nurse Specialists

Tel: **0300 019 6154** (9am until 5pm Monday to Friday; if you phone outside hours please leave a message on the answering machine)

Email: **uhd.arrhythmia.nurses@nhs.net**

The above numbers should only be used for general enquiries. If you have an unrelated medical concern please contact your GP or in the event of an emergency please dial 999 and ask for an ambulance.

Glossary of terms

ARRHYTHMIA
An abnormal heart rhythm.

ATRIA
The two top chambers of the heart, right and left.

ATRIOVENTRICULAR NODE
The junction between the atria and the ventricles allowing communication between the two.

BIVENTRICULAR PACING
The right and left ventricles are stimulated with tiny electrical impulses to improve the co-ordination of the heart.

CARDIOVERSION
A low energy electrical shock delivered to the heart to correct an abnormal rhythm.

CONDUCTION SYSTEM
Specialised tissue in the heart allowing the electrical impulse to travel.

DEFIBRILLATION
A higher energy electrical shock delivered to the heart in order to correct an abnormal rhythm.

ELECTROMAGNETIC FIELD
An invisible area of energy that is emitted from magnetic or electrical equipment.

ELECTROMAGNETIC INTERFERENCE (EMI)
Interference from very strong electromagnetic fields which can affect the functioning of the ICD.

EXTERNAL DEFIBRILLATION
An electric shock to the heart from paddles that are placed on top of the chest.

HEART ATTACK
Where an artery in the heart becomes blocked, usually by a clot, stopping the blood supply to an area within the heart. This causes death of this area of heart muscle. The medical name for this is Myocardial Infarction.

IMPLANTABLE CARDIOVERTER DEFIBRILLATOR (ICD)
A programmable battery operated device that sits in the upper left area of the chest. It has leads that sit in the chambers of the heart to constantly monitor and record the heart rate and rhythm. If an arrhythmia is detected it will provide appropriate therapy.

LEADS
Fine insulated flexible wires that transmit the impulse from the heart to the ICD and the energy from the ICD back to the heart.

PACING
Small electrical impulses that stimulate the heart to contract.

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and use the language and accessibility function available along the top of the site.

To ask for this leaflet in larger print, please contact the patient experience team on **0300 019 8499**
or email **uhd.patientexperienceteam@nhs.net**.

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