



Royal Berkshire
NHS Foundation Trust

Advice following an ICD / CRTD device implant

Information for patients

You have recently had an implantable cardioverter defibrillator (ICD) implanted. This leaflet gives important information and advice about recovering from your implant procedure and living safely with your implant.

What happens next?

You will have an appointment with a highly specialised cardiac physiologist in the cardiac device's clinic in six weeks' time. An appointment date will be sent out in due course or given to you at discharge. Please call us if you have not received this appointment within four weeks.

We will also provide a remote monitor device post-discharge or at our six weeks follow-up that will allow us to monitor your ICD from home.

Important advice following your ICD implantation

There are some important instructions that we would like you to follow in the meantime. Please follow these carefully, as they will help you to recover quickly and return to your normal activities as soon as possible.

- **It is essential that you keep your arm in a sling for the first 24 hours.**
- For the first month following your procedure, it is important that **you do not use your LEFT / RIGHT* arm to lift any heavy objects or for any strenuous pulling or pushing.**
- We also ask that you avoid lifting your elbow above shoulder height, as this can displace the leads we have implanted. Gentle movements are advised to avoid a frozen shoulder. You may continue to use a frame or walking stick.

**Delete as appropriate*

Wound care

Keep the wound site dry for the next seven days to avoid infection. We recommend strip washes for seven days. After that you can wash as normal. The wound is closed with:

- Dissolvable stitches:** These are absorbable and have been covered with a dressing. The stitches will dissolve over time.
- Glue:** The wound does not need to be dressed; the glue will gradually flake off as the wound heals.

If you notice any signs of infection around the implant site, e.g. redness, itchiness, heat or discharge, please call the cardiac devices clinic as soon as possible.

You may experience pain and discomfort at the wound site for a few days after the implant, and you may have localised or more extensive bruising (especially if you are on blood thinners), or inflammation for up to several weeks after the procedure.

We recommend taking paracetamol to help with this pain. If you are taking regular pain relief for other medical conditions, we would advise not taking any further pain relief.

It is normal to feel a bulge under your skin where your device is. It may be uncomfortable while wearing a bra or using a seatbelt. We recommend using some padding until the wound site has healed.

Clinical advice

- We will give you an ID card that contains all the details regarding your device and the implanting centre. **Always carry this with you** and show it to any medical staff (nurses, doctors, dentists etc.), as they will need to know what type of device you have to treat you effectively.
- After your six-week check, you will be monitored at home by the remote monitoring follow-up clinic. We will give you information about this before you leave hospital after the implant. You will

continue to have face to face follow-ups. Their regularity will depend upon the type of device you have.

- Please continue all your medications as requested by your cardiologist and please bring a copy of your medication to each clinic appointment.

Equipment interactions

- The following medical and dental procedures have no known risk as long as the item is used as intended and is in good working order: Acupuncture without electrical stimulus, acupuncture with DC current, dental apex locator, dental drills, dental pulp tester, dental ultrasonic scalers and cleaners, dental x-rays, diagnostic ultrasound, digital infrared thermal imaging, enhanced external counter-pulsation therapy, hearing aids and laser surgery
- Electromagnetic interference will not damage your device but may temporarily interfere with the settings while you are in contact with it. Most mechanical and electrical devices that you use in your normal daily activities will not affect your ICD / CRTD device. Household equipment, such as computers, cookers, major appliances, induction hobs, televisions, electric blankets, microwaves etc., will not affect your device if they are in good working order.
- Mobile phones are safe to use if a proper distance is kept between the phone and the device. We recommend keeping mobile phones, tablet computers or other mobile devices at least 6 inches/15 cm from your device. It is recommended that you use your phone on the ear opposite your device especially if the mobile has a magnet back and avoid placing your phone in a pocket near the ICD / CRTD.
- Do not carry magnets or place a magnet over your chest. This includes the new magnetic phone cases.

- We advise you to walk through shop doorway security systems at a normal pace, and do not stop or wait around in this area.
- Most equipment used by your hospital or GP's surgery will not cause any problems to your pacemaker. However, it is advised that you let medical and dental staff know that you have a pacemaker. Please take your ID card with you whenever you go to hospital.
- It is safe for you to have X-rays, CT scans and mammograms. Your pacemaker is compatible with magnetic resonance imaging (MRI) machine; however, your ICD/CRTD will require some reprogramming, so please ensure you inform the MRI team that you have a pacemaker prior to your appointment.
- If you are coming into hospital for any surgery or radiotherapy, you must let us know, or ensure that the department responsible has contacted us with regards to how that procedure may affect your ICD / CRTD device.
- Electrical nerve and muscle stimulators (TENS units) may cause interference with ICD/CRTDs but this depends on where on the body they are being applied. If any of these treatments are suggested to you, then contact your cardiac devices clinic for advice
- Industrial machinery and electromagnetic devices may interfere with your device and should not be used without consulting the cardiac devices clinic first.
- Screening security systems in airports and ferry terminals very rarely cause problems. However, the metal detector can sometimes detect the ICD / CRTD device, so make sure you carry your ICD / CRTD identification card with you. They may hand search you instead. Please also inform your travel insurance company that you now have an ICD / CRTD device implant.

How does an ICD device work?

- The device will be programmed to the best settings for you. This is initially done when the ICD is implanted, but settings can be modified during your follow-up appointments in the clinic, if necessary.
- **Anti-bradycardia pacing pulses:** If your heart is beating too slowly, the ICD can send small impulses through the heart that generate extra heartbeats when required. As these impulses are very small they are not painful and are not usually noticed. The device can tell when extra beats are needed and give these beats, as necessary.
- **Anti-tachycardia pacing pulses (ATP):** If your heart beats too fast, the device can send out faster pacing impulses that can help to get the heart back into a normal rhythm. This can be done so quickly by the ICD that many people do not know that it has even happened. Sometimes, it can make you aware of having palpitations or of feeling dizzy. If the ATP does not correct your fast heart rhythm, your device will be able to deliver a shock.
- **Defibrillation shocks:** These are full energy shocks that the device will deliver if it senses that your heart is beating so fast that it is life-threatening. People say this feels like they have been suddenly kicked or punched in the chest – it can be quite painful. Some people may not feel anything if their heart is beating so fast that they have become unconscious. If someone is with you when you have the shock, they will notice you jolt. No harm will come to anyone who is touching you.
If you receive a shock and feel well, please make a download ASAP. If the shock occurred within normal working hours, please contact the cardiac device clinic. If it occurs out of hours, please ring the Cardiac Care Unit (CCU) on 0118 322 6528.
If you receive consecutive shocks or feel unwell after a shock, please make a download ASAP and ring 999.

Device follow up-clinic

The device will be programmed to the best settings for you by a highly specialised cardiac physiologist. This is initially done when the ICD is implanted and at the six weeks post-implant follow-up, but settings can and are modified during your follow-up appointments in the clinic if necessary. This is a cardiac physiology led device clinic; so, you will not be seen by a consultant.

During your follow-up check, a wand is placed over your device. The device is interrogated by the highly specialised cardiac physiologist, who will thoroughly check the device function, battery, your well-being and test the lead.

The device records data with regards to your electrical conduction. This data enables us to reprogram the device to ensure it fully meets your needs. The ICD battery is also checked at each follow-up; most ICD batteries last for 6 to 10 years in average. How long the battery lasts depends on the type of device you have and the settings. After this time, you may need to have the device changed.

The device wound site is also reviewed to make sure it is healing well, and your medications may be checked. It is recommended to bring an up-to-date medication list with you.

The highly specialised cardiac physiologist will discuss the findings with you and inform you of your next in clinic routine follow up.

Remote follow-up

You will be given a remote monitor to work with your implanted device between scheduled visits. Depending upon the type of device, this may be a remote device you plug into a socket in your bedroom or a mobile app that is downloaded on a compatible mobile phone.

This is a home monitoring system that gives us access to monitor your heart rhythm and device information from your implanted device.

Your device performs self-checks automatically and will send an automatic download to the clinic. We will contact you if there is cause

for concern. The device may also emit an alarm or a vibration. If you hear or feel this alarm, please perform a download via your home monitoring system and contact the cardiac device clinic team. For this reason, it is important that your home monitor is always connected to power. Please plug the remote monitor into a socket next to your bed or where you normally sleep and ensure that it remains always plugged in. If you have a mobile app, ensure location and Bluetooth is always enabled for monitoring.

Any information sent over to us by the remote monitoring will be checked by a senior cardiac physiologist and forwarded on to your consultant, if necessary.

Please be aware that this is not a 24-hour service and typically runs Monday to Friday 8am to 5pm. This remote monitoring service doesn't replace the emergency services. If you require urgent attention out of hours, please call 111/999.

Can I exercise?

We would advise that you restrict your exercise for four to six weeks post implant, until you have been followed-up in the cardiac devices' clinic. After the first follow-up, you should be able to resume your normal level of exercise. There are some lead problems that can arise as a direct consequence of doing highly repetitive, vigorous shoulder movements such as weightlifting, tennis or golf, which may put a strain on the ICD lead. These activities should be stopped until three months after implant.

Usually, it is your underlying heart condition and the reason you have had an ICD that will influence your ability to exercise after the implant rather than the presence of an ICD device itself. Everyone is different and your underlying heart condition may limit your exercise capacity or in some heart conditions, exercise may induce an arrhythmia. The cardiac device clinic and your cardiologist can advise you further.

Most arrhythmias that require intervention by the ICD tend to be much faster than a normal heart rhythm will be able to go. The ICD is also able to differentiate a normal heart rhythm from an abnormal life-threatening arrhythmia.

Please remember

A CRTD / ICD does not prevent you from having a heart attack. You should call 999 for an ambulance immediately if you develop sudden severe chest pain, particularly if:

- The pain feels heavy, pressing, or tight.
- The pain lasts longer than 15 minutes.
- The pain spreads to other parts of your body, such as your arms, back or jaw.
- You also have other symptoms, such as breathlessness, nausea, sweating, or coughing up blood.

Your device performs self-checks automatically. In the event your device detects an abnormality, it will emit an alarm / vibrate. If you hear this alarm / vibration, please perform a download via your home monitoring system and contact the cardiac devices clinic.

Driving

The DVLA state that if you have a CRTD or ICD device you are not allowed to drive following the implant for:

	Prophylactic (Primary prevention)	VT/VF (Secondary prevention)
Car / motorbike	1 month	6 months
HGV / bus	License will be revoked	

If you receive a shock from your device, please cease driving and contact the cardiac devices clinic for further guidance.

It is your responsibility to inform the DVLA and your driving insurance company that you have a device.

Please strictly follow your cardiologist's advice with regards to driving guidance.

For full DVLA information visit www.gov.uk/guidance/cardiovascular-disorders-assessing-fitness-to-drive

Further information

For further information please refer to the ICD device booklet, manufacturer booklet or ring the cardiac devices clinic on 0118 322 6636. If we are unable to take your call, leave your name and telephone number and we will get back to you. You can also contact the CAT (Clinical Administration Team) 11 Admin Team who will notify us directly.

Contact numbers

CAT 11 Admin Team: 0118 322 6676 (to change your appointments)
Monday to Friday (9am-5pm)

Cardiac Devices Clinic: 0118 322 6636 (clinical advice & guidance)
Monday to Friday (8-6pm)

Cardiac Care Unit: 0118 322 6528 (Emergencies advice only out of hours)

Cardiac Support Nurses: 0118 322 6638

Email: rbtr.CAT11@nhs.net (Titled device query, state your name, NHS number and query)

This leaflet is printed privately for the Cardiac Fund. It was set up in 1976 for the purpose of providing cardiac services that would otherwise not be available through National Health resources. Our Cardiac Laboratory was equipped through the fund and many other areas in the Department have also benefited from equipment and staff training.

If you would like to contribute, please scan the QR code (right) to donate direct to the fund online, alternatively, cheques should be made payable to:



The Royal Berks Charity Cardiac Fund U226

Royal Berks Charity

Royal Berkshire NHS Foundation Trust London Road

Reading RG1 5AN Telephone 0118 322 8860

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Please ask if you need this information in another language or format.

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