



Advice following a pacemaker / CRTD implant

You have recently had a pacemaker / CRTD implanted. This leaflet gives important information and advice about recovering from your implant procedure and living safely with a pacemaker.

What happens next?

You will have an appointment with a senior 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 your six weeks follow-up. This will allow us to monitor your device depending upon the type of device you have implanted. It is not unusual not to feel a sudden improvement in your symptoms depending on your specific circumstances. If you had a cardiac resynchronisation therapy pacemaker (CRTD) fitted it might take several months to see an improvement, and in some cases, your clinical situation not worsening is already a positive outcome.

Important advice following your cardiac device 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.

Physical limitations

To decrease the risk of lead displacement it is important to be careful immediately post implant.

- **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. The wound is closed with:

- Dissolvable stitches:** These are absorbable and have been covered with a dressing. The stitches will dissolve over time. The dressing must be removed after 7 days. There may be a loop of stitch that needs to be trimmed. Which you can do using a clean pair of small scissors, cut each end of the stitch to remove.

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 pacemaker 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 a pacemaker ID card that contains all the details regarding your pacemaker 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 pacemaker you have to treat you effectively.
- After your six-week pacemaker check, you will be seen regularly in the cardiac devices clinic with your appointments being scheduled as below:
 - Six months later.
 - Annually thereafter.
 - You may have the option of using a remote monitoring service, depending on device compatibility.
- These appointments are to check your well-being, as well as the function and battery of your pacemaker /CRTP.
- 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 pacemaker / CRTP 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 pacemaker / 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 / CRTD is compatible with magnetic resonance imaging (MRI) machine; however, your device 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 pacemaker / CRTD device.
- Electrical nerve and muscle stimulators (TENS units) may cause interference with pacemakers, 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 pacemaker / CRTD device, so make sure you carry your pacemaker / CRTD identification card with you. They may hand search you instead. Please also inform your travel insurance company that you now have a pacemaker / CRTD device implant.

How does a pacemaker work?

In general, pacemakers / CRTDs are made up of two parts: the pacemaker generator (sometimes called the battery or can) and one or more wires called leads.

The generator contains the battery and computer components that make the pacemaker work. The leads are special wires that are connected to the generator on one end, with the other end implanted inside the heart. Small electrical impulses are transmitted from the generator and travel along the leads, which causes the heart to contract.

Pacemakers can be implanted with either one, two or three leads. The type of pacemaker you receive will depend on your clinical diagnosis

A pacemaker will prevent the heart rate from going too slowly or may help to regulate the rhythm by 'filling in the gaps'.

A CRTD pacemaker can help to improve symptoms for people who have heart failure with dyssynchrony (the two lower chambers of the heart do not beat in time with each other).

The device will be programmed to the best settings for you; this is initially done when the pacemaker is implanted and at the six weeks post-implant follow-up.

Device settings can be modified during your follow-up appointments in the clinic.

Device follow-up clinic

The device will be programmed to the best settings for you by a senior cardiac physiologist. This is initially done when the pacemaker / CRTP 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 senior cardiac physiologist who will thoroughly check the device function, battery, your well-being and tests the lead.

The device records data with regards to your electrical conduction. This data enables us to reprogram the device to make sure it best meets your needs. The pacemaker / CRTP battery is also checked at each follow-up. Most device batteries last for six to 10 years on average. The longevity of the battery 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 that you bring an up-to-date medication list with you.

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

Remote follow-up (CRTP devices only)

You will be given a remote monitor to work with your implanted device between scheduled visits if you have a CRTP pacemaker. Depending upon the type of device, you have this may be a remote device you plug into a socket in your bedroom or a mobile app which 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 very 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, please make sure 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 does not 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 six weeks post-implant until you have been followed up in the cardiac device's clinic. After the first follow-up in the clinic, 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, rowing, tennis, or golf, which may put a strain on the pacemaker lead. Therefore, it is advisable to stop these activities until three months after implant.

Usually, it is your underlying heart condition and the reason you have had a pacemaker that will influence your ability to exercise post implant rather than the presence of the pacemaker itself. Everyone is different and your underlying heart condition may limit your exercise capacity so it is best to discuss this with the cardiac physiologist in the cardiac devices clinic who will review it with the cardiologist.

The pacemaker / CRTP will only intervene when your heartbeat is slow and will not restrict your heart beating fast.

Please remember



Pacemaker / CRTP do not prevent you from having a heart attack.

You should call 111 or 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.

Driving

The DVLA state that after a pacemaker / CRTP device implant, you are not allowed to drive for:

- Car / motorcycle (Group 1)  1 week
- Lorry / bus (Group 2)  6 weeks

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 Pacemaker 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 6679 (to change your appointments) Monday to Friday (9-5pm)

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

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

Cardiac Support: 0118 322 6638.

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

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 below 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 www.royalberkscharity.co.uk

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

RBFT Cardiac Device Clinic / CRM team, January 2025

Next review due: January 2027