

Advice following an S-ICD device implant

You have recently had a subcutaneous implantable cardioverter defibrillator (S-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 devices 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 that will allow us to monitor your S-ICD from home.

Important advice following your S-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.

Physical limitations

There are no physical limitations immediately post-implant. You just need to be careful and be aware that your chest area will be significantly sore for the next few days. The S-ICD should not limit your arm movements because it is not implanted under the collarbone and there are no leads inside your heart.

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 sutures 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 at any of the wound sites, e.g. redness, itchiness, heat or discharge, please call the cardiac devices clinic as soon as possible.

You will experience pain and discomfort at the wound site for a few days to a week 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. **Carry this with you at all times** 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 weeks 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 every two years.
- Please continue all your medications as requested by your cardiologist and please bring a copy of your medication to each clinic appointment.

Equipment interactions

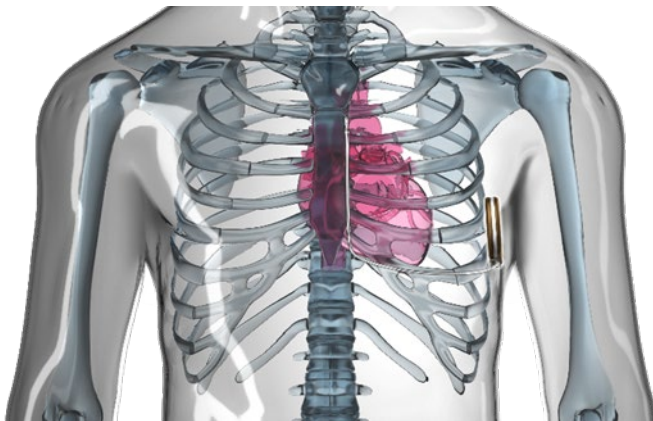
- The following medical and dental procedures have no known risk as long as the item is used as intended and is in good working order: Acupuncture without electrical stimulus, acupuncture with DC current, dental apex locator, dental drills, dental pulp tester, dental ultrasonic scalers and cleaners, 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 S-ICD device. Household equipment, such as computers, cookers, induction hobs, televisions, microwaves etc., will not affect your device as long as they are in good working order and used as intended.
- Mobile phones are safe to use as long as 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 S-ICD.
- Do not carry magnets or place a magnet over your chest; this includes the new magnetic mobile 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 S-ICD. However, it is advised that you let medical and dental staff know that you have a S-ICD. 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 device is compatible with magnetic resonance imaging (MRI) machines; however, your S-ICD will require some

reprogramming, so please ensure you inform the MRI team that you have an S-ICD device 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 S-ICD device.
- Electrical nerve and muscle stimulators (TENS machines) may cause interference with your device so it is advised that you do not use these.
- 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 S-ICD device, so make sure you carry your ICD identification card with you. They may hand search you instead. Please also inform your travel insurance company that you now have an S-ICD.

How does my S-ICD device work?

An S-ICD is an electrical device that is implanted on the left lateral chest wall (below the armpit) in order to monitor and treat dangerously fast heart rhythms. It is larger than a pacemaker, and has two main components: the generator and a wire which is known as a lead. The generator contains the battery, capacitors and computer components that make the ICD work. The lead is a special wire that allows the device to monitor the heart rhythm continuously, and is inserted just underneath the skin to the side of the breastbone.



Subcutaneous ICD (S-ICD), *Image provided courtesy of Boston Scientific. ©2021 Boston Scientific Corporation or its affiliates. All rights reserved.*

The S-ICD will continuously monitor the heart rhythm and deliver therapy to correct the arrhythmia as required. The S-ICD device has no pacemaker function.

- **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 probably 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 devices clinic on **0118 322 6636**; 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.

- **Post Shock Pacing (PSP):** This occurs after a defibrillation shock. Sometimes, after a shock occurs the heart can be “stunned” and will beat slowly. The S-ICD has a backup pacemaker and will stimulate the heart for 30 seconds after a defibrillation shock. It may appear to a bystander that you are receiving multiple shocks in a row, this is not the case and is normal for an S-ICD to do.

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 S-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 devices clinic; therefore, you won't 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 suits your needs. The S-ICD battery is also checked at each follow-up, most S-ICD batteries last for six to 10 years on 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 that you 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 clinic

You will be given a remote monitor to work with your implanted device between scheduled visits.

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. If you hear this alarm, please perform a download via your home monitoring system and contact the cardiac devices 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 plugged in at all times.

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?

For the first two weeks after your procedure, try to avoid arm movements that could create pressure on the wound sites. Avoid strenuous exercise and lifting heavy objects as this can slow the healing process and increase the chance of infection.

After you have been seen six weeks after implant in the cardiac devices clinic, your wounds should have healed and you can move freely. You may slowly build up your level of exercise; however, we recommend avoiding contact sports (e.g. rugby, martial arts) for three months after implant. Once you have fully recovered from the implant procedure, there should be little change to your normal daily life.

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

Most arrhythmias that require intervention by the S-ICD tend to be much faster than a normal heart rhythm. The S-ICD uses special algorithms to determine a normal heart rhythm from an abnormal life-threatening arrhythmia.

Please remember

An S-ICD does not prevent you from having a heart attack.

You should call 111 / 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 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	Licence 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 S-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 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: rbft.pacemakerclinic@nhs.net (This account is not monitored daily)

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 largely 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

To find out more about our Trust visit www.royalberkshire.nhs.uk

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

Cardiac Rhythm Management Clinic, May 2022

Next review due: May 2024