Implantable Cardioverter Defibrillator (ICD)

What is an Implantable Cardioverter Defibrillator?

An ICD is a small computerised device that sits under your skin and is connected to your heart with thin cables. The computer in the device can detect your heart rhythm and heart rate. If there is a life-threatening heart rhythm the device will try to fix it by either giving a shock to the heart or by pacing it to return to normal rhythm. The ICD can also act as a Permanent Pacemaker (PPM).

A Pacemaker is a device that sits under the skin and thin cables are threaded down from the device to the heart muscle. The device will create an electric current that causes the heart to contract (beat). The device has a complex computer system that will ensure it only causes a heartbeat when the heart needs one.

Why do I need an ICD?

Sometimes due to disease of the heart muscle such as cardiomyopathy (large heart), or those at risk of having life threatening abnormal heart rhythms may require an ICD. These abnormal heart rhythms can make your heart beat at a dangerously fast rate that does not pump blood out of the heart. These dangerous heart rhythms are called ventricular tachycardia (VT) or ventricular fibrillation (VF). This can lead to sudden cardiac death or leave you feeling very unwell, cause a faint or loss of consciousness. The heart doctor (cardiologist) involved in your care would have considered the risks of your heart problems and the benefits of implanting this device.

How do I prepare for an ICD insertion?

- The Cardiac Catheter Laboratory (CCL) nurses will ring you a few days before the date of your ICD procedure and discuss your medications and instructions for the day.
- You must have nothing to eat or drink for at least 6 hours before your procedure.
- You will be asked to bring all your medications with you.
- If you are a diabetic, on the morning of your procedure, you will be asked not to take your morning insulin or diabetic tablets because you are not eating or drinking.
- Some medications interfere with this test so it is important to discuss your medications with us. You will be advised if there are medications that should be stopped. Your booking letter will confirm this. It is important to let us know if you take Apixaban (Eliquis), Dabigatran (Pradaxa), Rivoroxaban (Xarelto) or Warfarin.
- Your other usual medications can be continued as normal and may be taken with a sip of water, unless you are instructed to do otherwise.
- If you have had a recent blood test, the CCL nurse may ask where you had these taken, so the doctor is aware of recent results, before the procedure.
- You would have been asked to shower with Sapoderm 5 days before your procedure. This is available from the chemist.
- You would have also been asked to get some swabs of your nose and groin. The CLL nurse may ask where these were taken so the doctor is aware on the day.
- Organise an adult support person to pick you up and drive you home from hospital the following day.

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What will I expect during the insertion of the ICD?

During the procedure you will need to fast (not eat or drink) for minimum six hours before the procedure. You will come to the operating room in the cardiac catheter lab. The cardiology team will be dressed in sterile gowns and gloves along with masks. Sometimes you will need a strong sedative (sleepy medications) where you will be completely unaware of the procedure. Other times you will have a lighter sedative where you will feel very relaxed or sleepy. The cardiologist (heart doctor) will determine what type of sedative medications you will need before the insertion starts.

There will be a small cut made (usually) in the upper left chest wall. The doctors will ensure lots of numbing medication (local anaesthetic) is put in around the ICD operation site at the time of the surgery. The cables are threaded down through a blood vessel and attached to the heart muscle. The cables are secured, and the small cut is closed with dissolving stiches. There will be a dressing placed on top of the ICD site which is to stay in place for 2 weeks. It is water resistant so you will be able to have a shower.

Will I stay in hospital after the ICD insertion?

When you have an ICD inserted you will need to stay in the hospital overnight. This is to make sure there are no problems with bleeding or with the device. You will be able to go home usually the next day after a chest x-ray and a device check.

Things to expect after the procedure

You will not be able to drive for 2 weeks insertion of the ICD. Further information on your specific driving instructions can be discussed with your Cardiologist (heart doctor). Please discuss with your Cardiologist if you hold a Heavy and Commercial vehicle license.

The dressing is very thin and will stay on until the review you have with the pacing team at the two-week appointment. There may be a little bleeding initially under the dressing however it should settle and be minimal.

Avoid moving your affected arm too much, by not lifting your elbow above your shoulder. You will need to reduce using your arm with limiting carrying in that arm. This is to stop the cables that are attached to your heart from moving. This is particularly important for the first 3-4 weeks. After this the skin grows into the cables and secures them nicely.

An appointment will be made for you to attend the Pacemaker Clinic in the Cardiology Department - Level 1 Clinic C or with your Private Cardiologist, two weeks after your ICD insertion.

Cardiac Catheter Lab

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