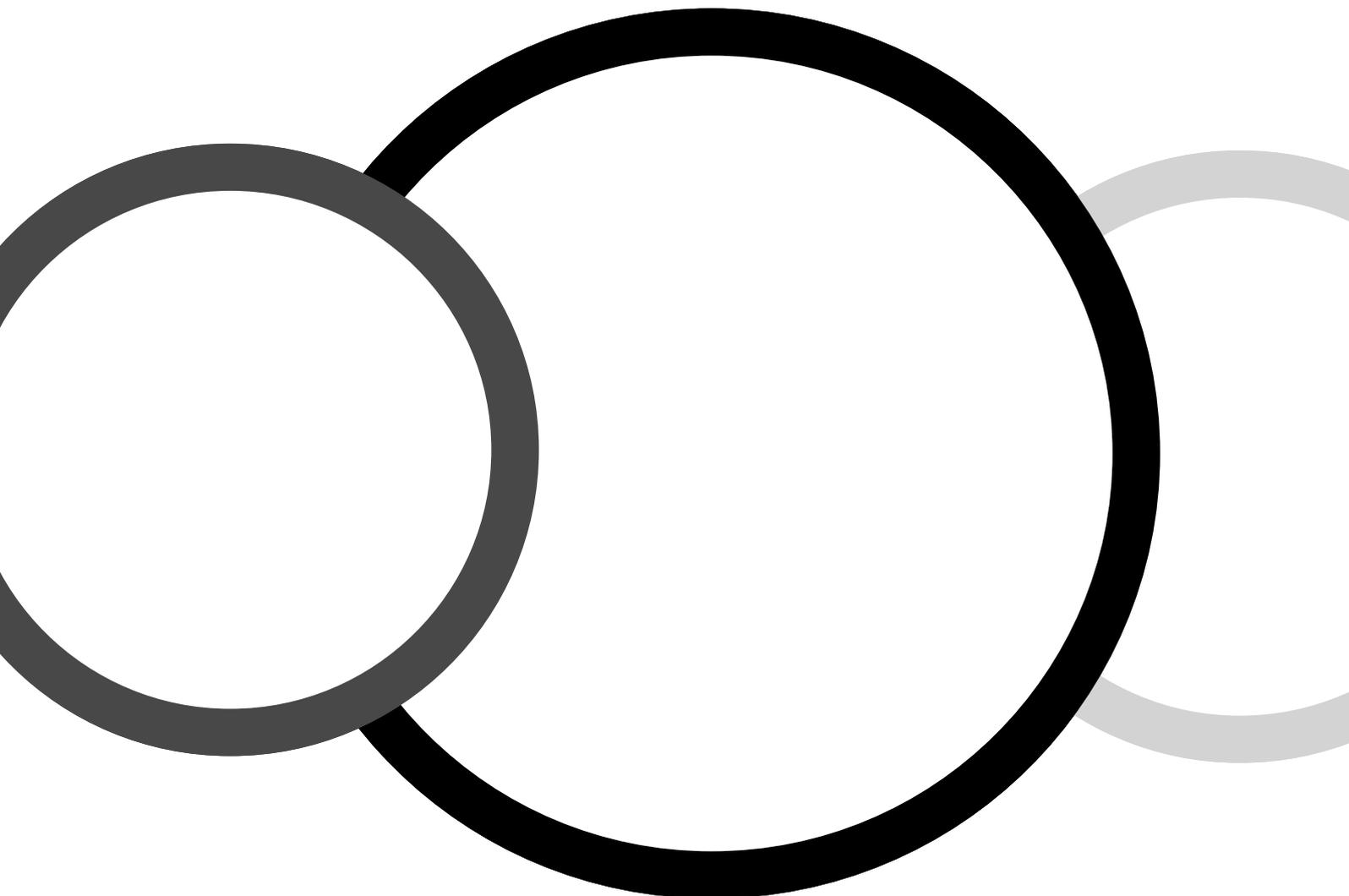


The Essex
Cardiothoracic Centre

Patient Information

Pacemaker



Having a pacemaker fitted

You have been referred to The Essex Cardiothoracic Centre (CTC) to have a pacemaker fitted. This leaflet describes the operation, so that you know what to expect. If you have any questions; please do not hesitate to contact the arrhythmia nurses.

What is a pacemaker?

A pacemaker is a small metal box-shaped device which contains a battery and electronic circuits. The box is implanted under the skin, usually under your left collarbone, and is connected to your heart by wires (called leads). Pacemakers can monitor your heart and help support your heart rhythm if needed by producing electrical impulses.

How the heart works

The heart is a muscular pump which delivers blood containing oxygen to the body. It is divided into two upper chambers (atria) which collect blood returning through the veins; and two lower chambers (ventricles) which pump blood out.

The heart has an electrical system. This normally drives the heart to beat in a regular organised way, at a rate of 60-100 beats per minute. Each normal heart beat begins with an electrical impulse from a group

of specialist cells called the sinus node (SA node). These electrical impulses travel across the top two chambers of the heart, down through the atrio ventricular node (AV node), then spread across the bottom chambers, causing the heart to contract and pump.

When a heart is beating normally we refer to this as sinus rhythm, or normal rhythm.

Sometimes there is an abnormality in the electrical system of the heart which results in your heart either beating too slowly or too fast or irregularly. A pacemaker can be used to treat these abnormal heart rhythms using one or two leads inside the heart chambers. The specific reason why you require a pacemaker will be explained to you by the arrhythmia nurses during your pre-admission assessment.

Points to note

- A date will be arranged for you to have a pre-admission assessment. This will take place at the CTC. A nurse will take some details to make sure you are well enough to have a pacemaker fitted. Your blood pressure, ECG, weight and pulse will be checked.
- You will need to arrange for somebody to bring you to the hospital and collect you by car or taxi on the day of your operation. You will not be able to drive yourself. You will not be able to travel by public transport.
- If you have any special needs or requirements, please tell the nurse during your pre-admission assessment appointment.
- If you need ambulance transport because of your medical condition, this can be arranged for you. Please contact the CTC patient activity office on 01268 524900 ext 4191 / 4192.

On the day of your operation please remember to bring with you:

- All your medication, in its original container.
- Something to read or a personal stereo.

- Overnight bag with your preferred nightwear, dressing gown, slippers and toiletries (in case you need to stay).
- For security reasons, please do not bring jewellery, large amounts of money/credit or debit cards, mobile phones or anything of great value to you. The hospital regrets that it cannot accept responsibility for loss or damage to property belonging to patients.
- Please do not wear jewellery, make-up or nail varnish. Your wedding ring may be left on if you wish and we will cover it with tape.
- Unless you are informed otherwise you will be able to have an early light breakfast on the day of your procedure, such as a small bowl of cereal, no later than 6am. Once you have eaten your breakfast, you must not eat or drink thereafter.

Should I take my normal medication?

Unless advised by the nurse at your pre-admission assessment appointment, you should take all your usual medication with a small sip of water.

You may be taking medications that need to be withheld prior to your procedure, if so this will be discussed and explained to you by the pharmacy technician and the arrhythmia nurses during your preadmission assessment.

If you are diabetic the management of your diabetes and your diabetic medication will be discussed with you during your preadmission assessment.

What happens when I arrive at hospital?

You will be admitted to the ward by a nurse. Please tell the nurse if you have had any allergic reactions in the past or if you think you might be pregnant.

The electrophysiologist (a specialist in the electrical system of the heart) who will perform the procedure will come to see you. They will explain the procedures and any side-effects or possible complications for you. They will then ask you to sign a consent form. If there is anything you don't understand or if you have any questions please ask.

What happens during the procedure?

- You will be taken to the cardiac catheter lab for your operation. The room is similar to an operating theatre
- There will be a team of people present, including an electrophysiologist, a physiologist, nurses and a radiologist who will assist with the x-ray equipment.
- You will be given a local anaesthetic and possibly a mild sedative to make you relax. However, you will remain conscious throughout the procedure.
- You will need to lay flat during the procedure and you will be asked to lie as still and relaxed as possible. If you have difficulty laying flat please discuss this with the arrhythmia nurses prior to your admission.
- The nurse will clean your chest with antiseptic solution and cover you with sterile drapes. You will also have a drape around your head and you may have a light drape covering one side of your face.

Please tell the nurse if you find this uncomfortable and we will make every effort to address this.

- You will be attached to a heart monitor so that we can monitor your heart.

Having a pacemaker fitted

- Most pacemakers are implanted by making a small cut (5cm/ 2inches), in the upper chest, just below the collar bone, usually on the left side.
- An x-ray machine will be positioned above you and may be moved around when the pacemaker is being fitted.
- A lead(s) is then inserted into a vein. The tip of the lead is advanced until it is inside the heart. The other end is connected to the pacemaker box, which is placed under the skin. You may feel some pushing at the top of your chest and a fluttering sensation in the chest. This is normal, so please do not worry. If you do feel uncomfortable, please tell the nurse.
- The wound will be stitched with either dissolvable or non-dissolvable stitches. You will be told which you have, and whether these will be removed.

Are there any side-effects or possible complications?

Pacemaker implantation is a safe procedure. Complications may include:

- infection
- bleeding
- bruising

All of these can be treated if they occur.

Other complication risks will be discussed in preadmission clinic by the arrhythmia nurse.

What happens after the operation?

You may need to rest in bed, in a sitting position for a few hours after the operation. Once you are fully awake you will be allowed to eat and drink normally. It is important to avoid lifting the arm on the same side of the pacemaker above shoulder level until you have had your first outpatient pacemaker clinic check.

You will need to have a chest x-ray and have your pacemaker checked before you go home.

Before you leave the hospital your new pacemaker will be checked and you will be given a cardiac

pacemaker identification card which you should carry with you at all times.

You will be told about any changes to your medication and how to care for your wound before going home.

Before you leave the hospital your new pacemaker will be checked and you will be given a cardiac pacemaker identification card which you should carry with you at all times.

You will be advised when to restart any medication that was withheld, before you go home.

What happens when I leave hospital?

You will need to be collected by car. Do not use public transport. You should have someone stay with you for the first 24 hours after your operation. You must rest for the remainder of the day on a couch or bed.

Taking care of your wound

A clear dressing will be sprayed on your wound before you leave hospital – this will gradually dissolve over the next week or two.

You must keep the wound site clean and dry for 7 days (if you are not diabetic) or 10 days (if you are diabetic) or until your stitches have been removed. You can have a bath or shower, but you must ensure that the wound stays completely dry.

After this time you may bath or shower as normal, taking care around your wound until it is healed. It is common to have some discomfort around the site of the wound. Pain relief such as paracetamol may be taken to relieve this.

You should avoid wearing tight clothing over the pacemaker site. Women may find that a soft pad placed under their bra strap will help to reduce any skin irritation. Some bruising is quite normal.

Returning to normal activity

Until new tissue has had the chance to form around the leads, there is a small possibility of them moving. Avoid lifting the arm on the same side as the pacemaker above shoulder level until you have had your first outpatient pacemaker clinic check which will be approximately 4-6 weeks after your procedure. Do not restrict all movement but try and avoid any sudden or jerky movements that could cause problems. It is very important to keep some mobility so gentle arm exercises are important to prevent your shoulder becoming stiff. You should not use the affected arm for lifting or carrying heavy shopping until your pacemaker clinic check.

Do not play any vigorous sports such as rugby, swimming, tennis or golf for at least one month and you should continue to be careful of any contact sports once you have a pacemaker.

Once you have had your first pacemaker clinic check you will be able to return to normal activity. Once the wound is healed a normal lifestyle can be resumed.

You may resume sexual activity as soon as you feel fit. You should avoid any position that will put pressure on the affected arm/shoulder for the first four weeks.

Returning to work

You should notify medical staff at your workplace that you have had a pacemaker fitted.

You should take a month off work to allow the pacemaker and leads to settle. If necessary you can self-certificate or obtain a medical certificate from your GP, please ask the arrhythmia nurses if you have any concerns.

Driving

You must notify the DVLA that you have had a pacemaker. The DVLA guidelines state that you should not drive for one week following your pacemaker implant.

If you hold a LGV/PCV licence this procedure disqualifies you from driving for six weeks with possible re-licensing required thereafter. You should contact the DVLA as these guidelines are subject to changes. All driving restrictions will be clarified and discussed with you by the arrhythmia nurses and

physiologist at the CTC. If you have access to the internet the DVLA regulations are available at www.dvla.gov.uk

A 4-6 week follow-up appointment will be arranged for you in the cardiology department. This check takes approximately 15 minutes, to monitor the pacemaker function and check the battery. You will also have the opportunity to ask any questions.

Wound infection / swelling

If you notice any reddening, or swelling near your pacemaker please contact the arrhythmia nurses and we will arrange for you to be seen at the CTC if needed. Their details are on page 10 of this leaflet.

How long will my pacemaker last?

The life of pacemaker batteries varies depending on how much they are used. Regular attendance at the pacemaker clinic will allow us to predict when the battery will need replacing. Battery replacement is a simple procedure involving a short stay in hospital. The operation is performed under a local anaesthetic and the old pacemaker is removed and

replaced with a new pacemaker and battery.

What is my pacemaker identity card for?

You will be given your pacemaker identity card before you leave the hospital. Please remember to carry it with you at all times. Do inform your GP, dentist, physiotherapist or other healthcare professionals who may use electrical appliances to treat you that you have had a pacemaker inserted. The card tells the doctors the type of pacemaker you have and its settings.

Can I travel by air?

You can safely travel abroad with your pacemaker. However, it is necessary to carry your pacemaker identification card with you when you travel by plane as you may need to show this to the security staff.

Airport security systems

You should show airport security staff your pacemaker identity card.

It is advisable to avoid walking through airport detector archway/ security machines or to be checked with a handheld detector. The metal detector should not be placed directly over your pacemaker

because this can temporarily interfere with your pacemaker. Where some patients have walked through the security machines, there have been no reported problems. If you cannot avoid going through the security machines, walk through briskly.

Can electrical equipment affect my pacemaker?

Most electrical items that you encounter will not affect your pacemaker. Today's pacemakers have a built-in safety feature which protects them from electrical interference from all common electrical appliances encountered in daily life.

If you find yourself feeling dizzy or experience the symptoms you had before your pacemaker was implanted, then you should turn off the electrical item, or walk away from it.

If symptoms persist then you should contact the pacing and ICD clinic. Please see details on page 10 of this leaflet. For urgent out of hours enquiries only, please contact Roding ward on 01268 524900 ext 4181 / 4174 / 4209.

If you are working with high current industrial equipment and powerful magnets, please call the pacing and ICD clinic.

Household / domestic appliances

Practically everything in the household environment is safe for pacemaker patients. These include:

- Microwave ovens
- Televisions
- Radios and stereos
- All kitchen equipment
- Hairdryers and shavers
- Vacuum cleaners
- Garden equipment

Mobile phones

Mobile phones are safe, but it is recommended that you use the phone on the opposite side to the pacemaker (six inches away from the pacemaker). It is safe for other people to use a mobile phone close to you.

Shop security systems

It is advised you should walk straight through the shop doorway without loitering; your pacemaker should not trigger the alarm system.

Hospital environment

Most equipment used in hospitals will not cause any interference with the pacemaker. If you need hospital or dental treatment it is important that you let medical and dental staff know you have a pacemaker so that they can assess if their equipment is safe to use.

TENS machine in particular should be avoided (sometimes used for (pain control).

X-rays

X-rays do not interfere with pacemakers.

MRI scans / CT scans

CT scans is safe to have. However, people who have pacemakers should avoid MRI scans.

If this treatment is suggested, then your pacemaker clinic should be contacted.

Radio frequency (RF)

It is unlikely that most patients will come across sources of RF that will cause problems.

Please remember, it is highly unlikely that anything will cause problems with your pacemaker. If you are concerned about anything at all, please call us.

Who should I contact if I have any questions?

If you need to contact us for advice regarding your pacemaker or care, please contact the arrhythmia nurses or the pacing and ICD clinic.

Where can I find further information?

If you need to contact us regarding your procedure, please telephone The Essex Cardiothoracic Centre.

- Arrhythmia nurses:
01268 394021
arrhythmia.nurses@btuh.nhs.uk
- Pacing and ICD clinic
The Essex Cardiothoracic Centre

For appointment queries and transport requests: 01268 694516

For all other queries:
01268 524900 ext 4019

- Roding Ward:
01268 524900 ext 4209
(out of office hours)
www.basildonandthurrock.nhs.uk

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Basildon
Essex SS16 5NL
☎ 01268 524900

Minicom
☎ 01268 593190

Patient Advice and
Liaison Service (PALS)
☎ 01268 394440
E pals@btuh.nhs.uk

W www.basildonandthurrock.nhs.uk

The Trust will not tolerate aggression, intimidation or violence directed towards its staff.

This is a smokefree Trust. Smoking is not allowed in any of our hospital buildings or grounds.

This information can be provided in a different language or format (for example, large print or audio version) on request.