



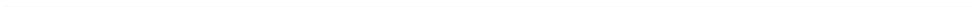
**Southend University
Hospital**
NHS Foundation Trust

Patient Information Service

Cardiology department

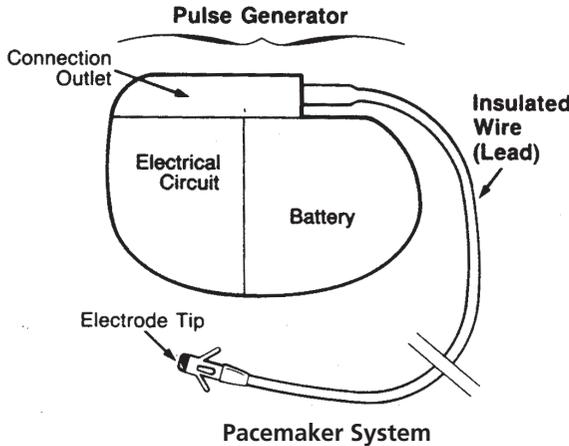
Living with a pacemaker





What is a pacemaker and how does it work?

A pacemaker system has two main parts – a small metal box called a pulse generator and an insulated wire called a lead.



The pulse generator is an electrical device which houses a battery, electronic circuitry and connection outlet for the lead. A pulse generator produces an electrical signal, and the lead carries the electrical signal to the heart – stimulating it to beat.

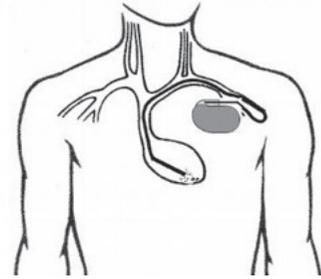
Why do you need a pacemaker?

The most common medical condition needing a pacemaker is called Bradycardia, which means the heart is beating too slowly. This condition may cause, dizziness, extreme fatigue and 'fainting' spells.

It happens when the heart's own natural pacemaker and electrical conduction system are not functioning correctly. A pacemaker may also be used if the heart beat is irregular.

How is your pacemaker implanted?

The procedure is performed within the cardiac catheter laboratory using X-ray equipment. The nursing and laboratory staff will help you on to a movable table. The cardiac physiologist will attach you to a monitor so your heart rate can be recorded during the procedure. The X-ray machine will be positioned above your chest and will be moved frequently during the procedure.



The procedure will be performed by the cardiology consultant. You will be awake during the procedure but you will be given a local anaesthetic into the skin around the area where the pacemaker is to be inserted. A small incision is then made in the left or right clavicle area (just below the collar bone). You may feel a pushing sensation as the leads are advanced into the heart, but no pain. If you do experience some pain from this area, it is nothing to worry about, but you must inform the doctor/nurse so they can administer extra local anaesthetic.

During the procedure, the cardiac physiologist will check the position of the leads, and you may feel extra heart beats as this is being carried out.

Prior to your procedure

If you are having your procedure as an inpatient your procedure preparation will be discussed with you by the ward staff.

Pre-assessment

If you are having your procedure as a day case you will be invited to be seen in clinic approximately one week before your procedure. The pre-assessment clinic is held on the cardiac and medical day-stay unit.

At pre-assessment, the cardiac physiologist will provide you with information and take an electrocardiogram (ECG). You will then see the nurse who will take a social and medication history and a blood test. She will give you instructions on any medication that you may need to stop on the day of procedure.

Please could you advise the staff at this point if you foresee any difficulties at home following the procedure, eg with personal care or mobility. Please advise if you use any mobility aids.

Please bring your medicines with you.

Please feel free to ask any questions that you wish.

Medication

Your medication will be discussed with you prior to your procedure. Please bring your medications with you on the day.

Do not stop any of your medications including anticoagulants unless specifically told to do so.

However if you have diabetes you should discuss this with the nurse at pre-assessment to obtain instructions regarding your insulin and/or diabetic tablets.

On the day of the procedure

You must have nothing to eat for six hours prior to your admission. You are allowed to drink still water until 7.00am for a morning admission and 11.30am for an afternoon admission.

It is very important that you are well hydrated for the procedure so please ensure you drink plenty of water up until the cut off time.

Male patients will need to shave the chest area prior to admission. You will be nursed in a mixed sex area. We will do our best to ensure your privacy is respected at all times.

Please remove any make-up, nail varnish and gel nails before coming into hospital. Please refrain from using perfume or aftershave and do not use moisturiser.

Things to bring

Feel free to bring a book/paper or an electronic device (with earphones) to help pass the time. However, please be aware that the Trust cannot take responsibility for your belongings.

Please do not bring jewellery or money into the hospital.

An overnight bag is advisable in case you are required to stay in for any reason. Please also bring your dressing gown and slippers.

Consent

You will be asked by the doctor to sign a consent form prior to the procedure. This is to ensure you understand the test and its implications.

A copy of the consent form will be given to you for your records.

Risks and complications

Usually the pacemaker lead(s) are inserted via the cephalic vein in the upper chest. If it is not possible to insert the leads via this route the subclavian vein is used. This is situated under the collarbone. A needle is used to find the vein.

There is a small chance of puncturing the lining of the lung (a pneumothorax). This usually heals itself, but occasionally a small tube will need to be inserted into the chest to drain off the air. This will require admission to hospital for a few days.

There is a small risk of bleeding and bruising. This will usually be self-limiting, but occasionally the wound will need to be opened and the bleeding stopped.

There is a very small risk of infection in the wound. If this happens then the pacemaker and lead(s) may have to be removed.

If you have any concerns regarding risks of the procedure these can be discussed with the nurse at pre-assessment clinic, or with your GP.

After your procedure

You will be transferred back to the ward where you will be monitored closely for two to four hours. A chest X-ray may also be taken before you are discharged.

Pain

You may experience some minor discomfort at the incision site. Any mild painkiller that you would normally take will relieve this.

Discharge home

You should not drive yourself home and you should have someone to stay over the first night with you. You must be collected from the ward.

If you are having your procedure as an inpatient you will be advised by the doctor or nurse on the ward of when you can be discharged.

Wound care

If you have stitches the area needs to be kept clean and dry. The nurse will inform you if you need your sutures removed. These can be removed after seven days. You will therefore need to make an appointment to visit your practice nurse. If you are diabetic your sutures should be removed after ten days. You should leave the dressing intact until you see the practice nurse.

The first couple of weeks

General activities

Please avoid heavy lifting, vigorous exercise and most importantly of all, do not raise your affected arm above shoulder height.

Signs to look out for

If you suffer from any of the following, please contact the pacing clinic on **01702 435555 ext 5033** between the hours of 9.00am to 5.00pm, Monday to Friday. Outside of these hours please contact **111** for advice.

- breathlessness
- dizziness
- fainting
- swollen arm on affected side
- prolonged hiccups
- pain or redness over pacemaker site.

Please remember not to wear tight clothing/braces over your pacemaker site for the first couple of weeks.

Follow-up care

A one month follow-up appointment will be arranged for you in the pacemaker clinic in the cardiology department. This check will take approximately 15 minutes and it will enable the technician to monitor the pacemaker's function and measure the battery levels. These check-ups will enable you to discuss any matters concerning you about your pacemaker.

After your first check-up your pacemaker will be checked several times a year.

A cardiac pacemaker identification card will be given to you which should be carried by you at all times.

Who else needs to know about your pacemaker?

- any doctor who you see for any further health issues
- medical staff at work or school
- your dentist, physiotherapist or any other practitioner who may use electrical appliances to treat you
- air travel agencies
- family.

Travel

There is no reason for you to limit your travel. You should, however, notify the hospital if you intend to go abroad for three months or more in this instance arrangements, etc.

Arrangements for pacemaker checks can be made at other pacemaker centres.

You should inform your travel agent and security personnel at airports. This will avoid possible interference from airport metal detectors.

Driving

The DVLA states you must not drive for one week following the fitting of your pacemaker. It is, however, wiser to minimise your driving for up to a month to prevent any risk of your leads from dislodging.

The Driving Vehicles Licence Agency (DVLA) should be informed. You should inform your insurance company that you have a pacemaker fitted.

Electrical

Domestic appliances are safe.

Your pacemaker is well shielded against external electrical interference. However, there are some things it is wise to avoid.

These include:

- diathermy or short wave therapy
- direct contact with car ignition systems
- high power radar or radio and television transmitters
- close proximity to electrical arc welders and any other spark producing equipment
- airport weapons detectors.

Mobile phones

Patients with permanent pacemakers who use mobile phones are advised to maintain a minimum of six inches (15cm) between the phone and the pacemaker. The patient should hold the phone to the ear opposite the side of the implanted pacemaker. The phone should not be carried in the breast pocket or on a belt within six inches of the pacemaker.

Wireless LANs used for PC internet connection

There has been no reported interference with pacemakers though as a precaution it is advisable to keep at least six to eight inches (15-20cms) between the LAN and the pacemaker.

Physical activities

Taking part in physical and recreational activities can vary. You can commence walking and gardening (not digging) straight away.

Bowling, golf and fishing in six weeks.

Heavy weight training as your doctor advises.

You can resume normal sexual activity when you feel ready to do so.

Swimming should be avoided until sutures are removed and the wound is healed. If in doubt contact the practice nurse at your GP's practice.

Returning to work or school should be discussed with your doctor.

Please take things gradually at first

If you are in any doubt as to when you can resume any activity please ask your doctor.

Things to avoid to start with

Physical – Any physical exertion which causes fatigue, breathlessness or dizziness. Jumping or violent arm movements which may affect the stability of the pacemaker (especially in the early days). Sustained pressure on, or blows to, the implant site.

Replacement

Today's pacemakers are designed to last up to ten years or more although the actual time may vary depending on the type of pacemaker. The most common reason to replace a pacemaker is when the battery begins to run down. During this time, the pacemaker is designed to continue working properly, you will be checked at more regular intervals and a date will be set for your pulse generator to be replaced. The existing lead can be attached to the new pulse generator in most cases. This will involve you staying in hospital for a day as before, although the procedure usually takes less time than the original implantation.

To sum up:

LIVE A NORMAL LIFE

Keep the appointments for technical and/or medical check-ups. Contact your GP immediately in the event of:

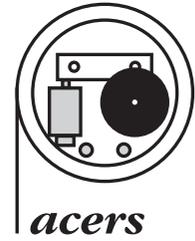
- dizziness
- tendency to faint
- redness, inflammation, discharge or sensitivity to pressure of the skin at the location of the pacemaker or leads.

Keep in touch with us, ie pass on your new address, if you move.

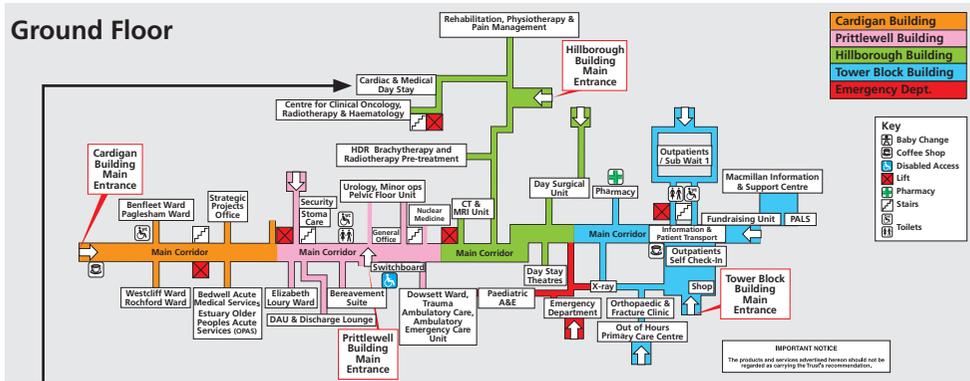
Pacers

We have a pacemaker support group at the hospital. The group meets four times a year and you will be provided with the dates.

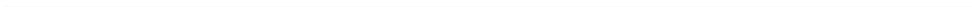
The aim of the group is to keep pacemaker patients fully informed and up to date.



Where we are



Cardiac and medical day-stay





**Southend University
Hospital**
NHS Foundation Trust

Patient Information Service

If this leaflet does not answer all of your questions, or if you have any other concerns please contact the pacing room on: **01702 435555 ext 5033**, between 9.00am to 5.00pm, Monday to Friday.

www.southend.nhs.uk

For a translated, large print or audio tape version of this document please contact:

Patient Advice & Liaison Service (PALS)

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Email: pals@southend.nhs.uk

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