

We hope this leaflet will help you to understand a little more about your operation and the treatment you will receive after it. If you have any further questions, please do not hesitate to ask a member of the nursing or medical staff.

They will be happy to help you.

WHAT IS A PERMANENT PACEMAKER?

You are being admitted to hospital to have a pacemaker fitted. Most pacemakers are designed to treat slow heart rates only. Some are designed to treat fast heart rates and some to improve heart function.

The pacemaker system is made up of one or more leads and a pacemaker box, which contains a battery. It is inserted during a simple procedure, which is done in one of the cardiac labs.

The operation usually takes around one hour, but varies for each individual patient and can take up to three hours for the most complicated devices.

PREPARATION FOR ADMISSION TO HOSPITAL

You will usually be admitted on the day of your operation. You will probably be asked to attend a pre-operative assessment prior your procedure, where a nurse will ask you some questions and carry out a few routine tests. The assessment will include tests for blood pressure, pulse, a heart trace (ECG) and swabs. We will also record your height and weight, and possibly take a chest x-ray.

If you have been found to be carrying particular bugs (types of an organism called Staphylococcus Aureus), which is quite common, then you will be contacted and asked to go to your GP and you will be given some nasal creams and be asked to wash daily for 5 days before the procedure in a special solution.

You will be told specifically what to do if you are taking aspirin, clopidogrel, prasugrel or warfarin. Whether these drugs are stopped or continued depends on your individual circumstances and you should continue them unless told otherwise.

BEFORE THE OPERATION

We ask you not to eat anything for 6 hours before your operation, but you can drink water until 2 hours beforehand. This is to prevent you being sick during the procedure and it allows us to give you sedation if you require it. Do take your usual tablets with a sip of water. You will be given antibiotics through a small needle in the back of your hand,

as a routine precaution to prevent infection. To reduce the risks of infection, we ask you to have a bath or shower on the morning of your procedure and to put on a hospital gown and paper pants. Please do not use talcum powder, deodorant or make up. So that the procedure may be carried out as safely as possible, we also ask you to remove all jewellery, including hairpins (except your wedding ring, which can be taped to your finger), and any glasses, contact lenses, hearing aids or dentures that you wear.

On admission the doctor will visit you and you will be asked to sign a consent form. Please feel free to ask any questions.

THE OPERATION

This procedure is carried out under operating theatre conditions to reduce the risk of infection, so the doctor and the other staff will wear a hat and facemask.

There will be a doctor, a nurse, a health care assistant, a technician and sometimes a radiographer in the room. The technician will check that the pacemaker is working correctly.

You can be given sedation if you wish.

After the skin has been cleaned, a local anaesthetic injection is used to numb the skin around the area of insertion. A small incision is made below the collarbone and the leads are positioned in the heart through a vein. The pacemaker box is then connected, and inserted into a muscle pocket under the skin, below the collarbone on the opposite side to your dominant hand.

The procedure is monitored by X-ray. The small wound is stitched and may be glued or a dressing may be put over it.

RECOVERY

After the operation you will be taken back to the ward. You will be able to have something to eat and drink.

You are advised to rest on your bed for a while after your operation to recover. A nurse will regularly check your blood pressure, pulse and wound. **It is most important to limit the movement of your arm and shoulder on the side that the pacemaker has been fitted for the first month. The leads inside your heart need this time to anchor firmly onto the heart muscle.** Most patients will go home on the same day.

FOLLOW UP

Before you go home you will need to have a chest x-ray to check the position of the leads in your heart. The technician

will also check that your pacemaker is working properly.

You will be given an appointment for one month's time to have your pacemaker checked again. These technical checks are required throughout the lifetime of the pacemaker on at least an annual basis. The pacemaker battery life varies from patient to patient and will be monitored during your pacemaker checks.

If you cannot attend an appointment please contact the pacemaker clinic to rearrange a convenient time. Please inform the pacemaker clinic if you change your home address or GP details.

GOING HOME

Your chest area may be tender for a few days, perhaps with some bruising. You may wish to take some paracetamol or a painkiller such as codeine or tramadol; you can be provided with some to go home with if you wish.

LOOKING AFTER YOUR WOUND

If you develop a temperature, or the wound becomes red or inflamed, please contact the cardiac day unit (01823 342067), the pacemaker clinic, or coronary care promptly.

If you have the glue closing the wound please ensure that it is left uncovered. The glue will start to flake off after 7 days. You can shower on the same evening of the procedure but should not soak the area; pat the area dry with a clean towel.

If you have a dressing covering the wound site please remove after 2 days and leave it uncovered. The nurse will give you more dressings if required. The wound should be kept clean and dry for 3 days after the procedure. You should then shower normally and pat the area dry with a clean towel.

If you have dissolvable sutures closing the wound the sutures will dissolve and no further action is needed. If you have non-dissolvable sutures you will be given an appointment to come back to the Cardiac Day Unit to have them removed, usually 7 days after the procedure.

You will be given further specific wound care advice before you go home.

RISKS AND COMPLICATIONS

The risks associated with this procedure vary according to individual circumstances and the type of pacemaker you are having, but life-threatening complications are rare. Although every effort is made to minimize problems, you should be aware that all invasive procedures carry some risk and we advise you to discuss this with the doctor before signing the consent form.

The complications specific to having a permanent pacemaker fitted are:

- ☒ Infection (2%)
- ☒ Movement or displacement of the leads (2% per lead)
- ☒ Serious swelling of the wound due to bleeding (1%) – note almost everyone gets some bruising
- ☒ Pneumothorax – air around the lung (4%)
- ☒ Compression of the heart caused by build-up of fluid (tamponade, <1%)

FOLLOW-UP INFORMATION: SOME DO'S AND DON'TS

DON'T lift your arm on the side of the pacemaker above shoulder height for **one month** after the pacemaker has been fitted.

DON'T lift anything heavy or do any strenuous exercise for one month after the implant.

DON'T drive for one month following the pacemaker implant. Patients who have a pacemaker may hold an ordinary driving license, provided their pacemaker is checked regularly. For patients with an implanted defibrillator the rules vary and you will be given specific guidance.

DON'T go through the metal detection loop at airports. You will need to show your pacemaker identification card and may be searched manually.

DON'T use your mobile phone on the same side as your pacemaker or store it in a pocket over your pacemaker.

DON'T linger around shop doorways where electronic anti-theft gates may be installed. Patients are advised to enter and exit shops at a normal pace.

DO carry your pacemaker identification card with you at all times. This has your pacemaker details on and may be needed in an emergency.

DO let the DVLA in Swansea and your insurance company know that you have a permanent pacemaker.

DO tell your dentist you have a pacemaker.

DOMESTIC EQUIPMENT

There is no risk when using electrical equipment (including microwaves) in the home or during normal day-to-day activities.

Although the risk of external interference with your pacemaker is very low, it is possible. If you have any ill effects whilst in close proximity to electrical or magnetic equipment move away from the source.

If you are unsure of the possible effects of any device or equipment you wish to use please contact the pacemaker clinic.

FOR HELP AND FURTHER INFORMATION

If you have any queries regarding your pacemaker please contact:

The Pacemaker Clinic
Mon-Fri 8:30am to 5pm
01823 342953

The Cardiac Day Unit
Mon- Fri 8am to 6pm
01823 342067

The Coronary Care Unit (CCU)
For urgent assistance is required outside of these hours
01823 342066

The Musgrove Park BHF Arrhythmia Nurses
Mon-Fri 8:30am to 5pm
01823 343595

The British Heart Foundation
Greater London House
180 Hampstead Rd
London
NW1 7AW
<http://www.bhf.org.uk/heart-health/treatment/pacemakers.aspx>
0300 330 3311

Permanent Pacemaker
