

**Is putting in a pacemaker a safe procedure?**

All procedures in medicine have some risks but generally speaking the answer is yes. The table highlights recognised risks all of which are rare and normally outweighed by the benefit of having the pacemaker put in.

**Table showing frequency and nature of pacemaker complications**

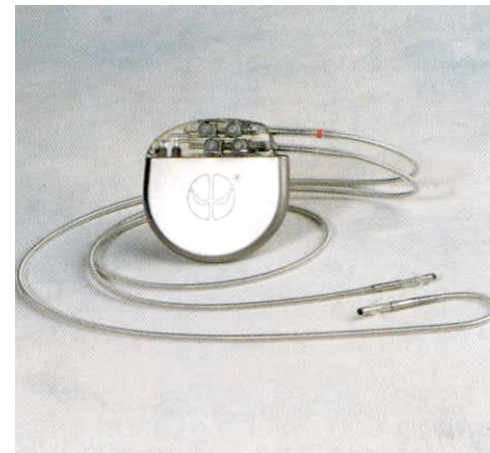
COMPLICATION	RISK
Death	0 in 1059
Punctured lung (pneumothorax) needing drainage	1 in 133
Lead passing through the heart muscle (perforation)	1 in 1000
Arterial puncture	1 in 40
Axillary vein thrombosis	1 in 1000
Dislodged lead needing re-positioning	1 in 71
Infection needing a further procedure	1 in 106
Erosion of the pacemaker through the skin	1 in 212
Blood clot around the pacemaker needing drainage	1 in 212

\*These risks are derived from two published sources including an audit of 1059 pacemaker procedures published in the journal of the British Cardiac Society in 1995.

**You should not sign your consent form unless you accept these risks. If you have any questions regarding these risks a doctor will be happy to answer them for you.**

This information leaflet should answer most of your questions. If you would like further information then please telephone the Cardiac Centre on 01225- 824326 or Cardiac ward on 01225-824444. If you have any specific questions about your pacemaker after it has been fitted then telephone 01225-825439 and a cardiac technician will help you.

## A patient's guide to pacemaker procedures



***Please read this leaflet and keep it in a safe place as it contains important information.***

## **What is a pacemaker?**

A pacemaker is a small metal box containing a battery that sends small electrical impulses down a lead and into the heart. It is these electrical impulses that keep the heart beating. Some pacemakers have one lead and some have two, depending on the problem with the heart.

## **Why do I need a pacemaker?**

Patients need pacemakers for different reasons but normally it is because the heart is beating too slowly. A pacemaker will prevent dizzy spells or episodes of collapse associated with a slow heart rate.

## **How is a pacemaker implanted?**

Before a pacemaker is fitted you will not be allowed anything to eat for 4 hours nor drink for 2 hours. You will be given some antibiotics before the procedure commences through a vein in your arm. The procedure will be carried out under local anaesthetic with a sedative, also administered through an arm vein, and will take between 30 and 60 minutes. A small cut is made in the skin beneath the collar-bone and one or two leads are passed through the main veins into the heart. You may feel a little fluttering as the leads are placed in the correct position. You may also feel a little pressure around the shoulder whilst this is done but it should not be painful. It is necessary to do some electrical checks to be sure the leads are in the correct position. You may be asked to sniff, cough or breath deeply to see if the leads are in a stable position. The leads are then connected to the pacemaker which is then placed under the skin and the wound closed.

## **What happens next?**

Once the procedure has been completed you will be able to have some refreshment. You will have earned it! You will have some X-Rays taken of the chest either on the same day, the next morning, or both. The day after your pacemaker is fitted you will have a further check of the pacemaker by one of the cardiac technicians.

This is done using a computer and is painless. If the pacemaker check and X-Rays are satisfactory you will be allowed home.

One week after you go home you will need to attend your local surgery to have the suture removed. Four weeks after leaving hospital you will be seen in the pacemaker clinic to be sure that it is still working properly.

## **Do's and Don'ts**

- You should avoid lifting your arm above the shoulder on the side of the pacemaker until your pacemaker check one month after going home. There is a risk of dislodging the lead if you do so. Activities such as golf and swimming should be avoided until this time also. Walking is fine.
- The wound should be kept dry until it is healed.
- Avoid tight clothes over the pacemaker. You may feel the pacemaker (and perhaps the lead) through the skin. Do not prod and poke it!
- You must not drive for four weeks. You will be told if you can resume driving when you come for your first check at four weeks. You must inform the DVLA that you have a pacemaker.
- It is quite safe to travel abroad. Show your identity card to the security staff to avoid setting off the metal detector. Such devices will not harm your pacemaker.
- Use mobile phones on the opposite side to the pacemaker.
- Microwave ovens will not interfere with your pacemaker.
- If you go into hospital for treatment (including physiotherapy) or an operation then tell the staff you have a pacemaker.
- You should avoid arc welding.
- Shop and library security gates may interfere with your pacemaker. If you walk straight through there should not be a problem.

## **How long will my pacemaker last?**

The pacemaker will be checked every six months to a year and should last for around eight years. Some last longer and some less. If there is a need to change the pacemaker or reposition the lead this will be identified by the technicians in the pacemaker clinic.

Changing the pacemaker is similar to the original procedure but it is unlikely that the leads will ever need to be replaced. Rarely you may need to have the wound refashioned and if so, the scar will become a little more obvious.