

Pacemaker Implant After Care

Information for patients, relatives and carers

① For more information, please contact:

Vascular Imaging Unit
Telephone: 01904 726065
Monday – Friday 08:00 – 17:00

Pacemaker Clinic
Telephone: 01904 726525
Monday – Friday 09:00 – 17:00

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What is a pacemaker?

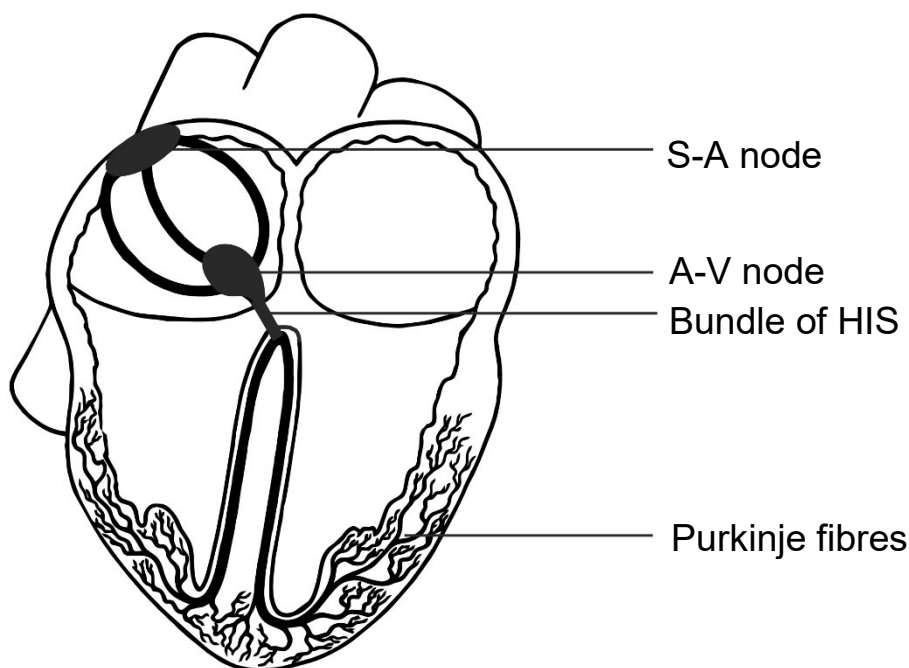
A pacemaker is a small electronic device, made up of a battery and electronic circuitry, and is connected to one or more wires known as leads.

Pacemakers recognise when the heart is beating too slowly and will prompt the heart to beat at a normal rate.

How the heart works normally

The heart is a muscle; that pumps blood and oxygen around your body to all of your vital organs. It has four chambers, two at the top (the right and left atria) and two at the bottom (the right and left ventricles). The heart also has an electrical system, which sends impulses (beats), through the heart causing it to contract and pump blood around the body.

Each normal heartbeat begins in the natural pacemaker of the heart (the sino-atrial or SA node) which lies at the top of the right atrium. It travels across the two top chambers and down through a small junction (the atrioventricular or AV node) between the upper and lower chambers. It then spreads across the bottom chambers (ventricles) causing the heart to contract and pump blood to the lungs via the right ventricle and oxygenated blood around the body via the left ventricle.



Sometimes the electrical system in your heart does not work as well as it should, causing your heart to beat too quickly or too slowly. This can cause symptoms such as loss of consciousness, dizziness, breathlessness, fatigue or palpitations.

A pacemaker can help when the heart beats too slowly and will be single (one lead) or dual (two leads) chambered depending on your particular condition.

You will need to have some tests before the decision to have a pacemaker fitted is made, such as an electrocardiogram, ambulatory ECG monitoring, an echocardiogram, and maybe a few others. Your cardiologist will advise as to what is needed.

How is the pacemaker implanted?

You will arrive at the Vascular Imaging Department at an agreed time or if already in hospital, a ward nurse and a porter will take you to the procedure room. Once there, another nurse will check your details again and you will be asked to lie on a trolley or narrow operating table. The procedure may be performed under a general anaesthetic, but it is often performed with just sedation which will make you relaxed and sleepy. There will be a circulating nurse in the room throughout the procedure to check on you.

Before the pacemaker implant procedure starts, the doctor will inject some local anaesthetic under the skin just below your collarbone (usually the left side). This will numb the area and allow the doctor to pass a small lead or electrode through a vein into your heart.

You may have one or two leads inserted depending on what your doctor recommends. The leads are then connected to the pulse generator box, which is about the size of a large matchbox which will be placed under the skin.

What happens after the pacemaker is implanted?

After the procedure you will undergo some checks outside in recovery or back on the ward. It is important to let the nurse know immediately if you experience any pain at all. It is normal for the wound to be sore or bruised for a few days so you may be given some regular painkillers. You will also be given some antibiotics before the procedure.

There is a small risk the leads into the heart can move out of position. To minimise this risk, you should not lift the arm or perform vigorous movements on the side the pacemaker is implanted. This is for at least six weeks after the procedure. After this time you will be able to return to normal activity providing the wound is healed and device functioning appropriately. If you are unsure, it is important to check with your cardiologist, nurse or cardiac physiologist after the procedure.

The cardiac physiologist will come and see you after the procedure to check the device before you go home.

This involves using a special programmer to communicate with the device and usually takes around 20 minutes.

- You will be given a pacemaker identity card before you leave hospital, or it will be sent out in the post. At this time, you can ask any questions you may have about the device.
- If you have the procedure done as an outpatient/day case, you will likely go home the same day unless there are any complications, or the procedure finishes late in the day.
- If you have the procedure done whilst already being in hospital, you may stay in overnight so extra checks may be carried out.

The cardiac physiologist will arrange an appointment for you to come back in six weeks' time - see 'Clinic visits / remote monitoring' on page 6.

How do I care for my wound site?

Your wound site should take approximately six weeks to heal fully. It is important to:

- Keep the dressing on until the stitches/clips or steri-strips are removed.
- If the dressing becomes soiled or wet, wash your hands thoroughly, remove the existing dressing and replace with one of the new dressings given to you. **Do not touch the wound site.**
- You may notice some bruising; if the bruising is soft, this is normal. If the bruising is hard or the wound site starts to swell, or bleed/ooze apply firm pressure to the area and return to hospital.
- Avoid taking hot baths so take a cool bath or shower for a few days. It is important to keep the wound clean and dry.

You will need to make an appointment with your GP practice seven to ten days after your procedure to have the closure material removed. If you:

- develop a fever
- the wound site is red or warm to touch
- It continues to bleed or oozes
- or you have any concerns regarding the wound site

What about my medication?

Do not stop taking any prescribed medication unless your doctor instructs you. If you are taking warfarin, rivaroxaban, dabigatran or edoxaban, please ask the nurse or doctor before discharge when you should recommence taking your medication.

Going home

- On discharge, we advise you to take plenty of rest over the following couple of days. Gradually build up your activities to your normal level.
- Avoid extending your arm/shoulder for the first few weeks, so no reaching, lifting and stretching.
- Avoid rough contact that could result in blows to the implant site.
- Avoid rubbing the wound site or the surrounding chest site.
- Avoid lifting heavy objects, pushing, pulling, mowing the lawn, or hoovering until instructed by the Pacing Clinic.

Living with a pacemaker

When can I return to work?

We advise you not to return to manual work for the initial six weeks, but you may return earlier for sedentary occupations such as desk jobs.

Can I use my mobile phone?

You may still use your mobile phone as long as it is **not** carried over the pacemaker, such as in the left chest pocket. We also advise you to use the ear on the opposite side of the pacemaker site when on the phone.

You must maintain a distance of 15 centimetres (six inches) away from your device.

What about driving?

The Driving and Vehicle Licensing Agency (DVLA) have strict guidelines in relation to patients that have a pacemaker implanted. Typically, you will not be able to drive for one week. You can access the guidelines on the DVLA website as well as a form you can fill in to inform them you have undergone the procedure. You will also need to inform your motor insurance company to let them know you have a pacemaker fitted.

Clinic visits / remote monitoring

When the cardiac physiologist comes to check the device after the implant procedure, they will schedule an appointment for you to have the device checked in clinic in six weeks' time.

This allows the pacemaker and leads to settle into the heart muscle and become more stable.

At these checks, the cardiac physiologists will use a special programmer. This allows them to check the settings on the device, the pacemaker battery and test the lead(s) to ensure it is functioning appropriately.

Some patients may be able to have their checks performed via remote monitoring. This allows the pacemaker clinic to check your device from home. It uses a small device plugged in in the bedroom that sends the information securely using an integrated aerial.

The home monitor allows the pacemaker clinic to pick up on any device issues quickly and reduces the number of times you need to attend hospital. Changes cannot be made to your pacemaker; you must attend an appointment in the hospital for this.

If you have any questions regarding your clinic visits or remote monitoring, please discuss it with the pacemaker clinic during your visit, or via telephone.

Exercising

You should restrict your exercise and movement for six weeks post-implant. After your first follow up appointment, you should be able to resume normal activity levels. This is mainly to minimise the risk of the leads moving out of position.

It is more likely that your underlying heart condition will have more influence on your ability to exercise than the pacemaker itself. This can be due to shortness of breath, fatigue or chest pain and should not be ignored.

Research has shown that physical activity is hugely beneficial for people with a pacemaker; however this should be progressed slowly from the first follow up after implant, usually six weeks. If you are not sure what you can and cannot do, discuss this with the pacemaker clinic at your follow up appointments.

What electrical equipment can I use?

Most electrical appliances at home will be safe to use providing they are in good working order. This includes:

- Televisions, radios, CD and DVD players
- Hairdryers, shavers
- Washing machines, fridges, hoovers, ovens and microwaves
- Office equipment such as computers, telephones and printers
- Remote controls
- Smart watches
- Fall pendants or fall alarm necklaces

There is some equipment which is **not** advisable to use when you have a pacemaker implanted. This is usually due to strong electromagnetic fields or vibrations from the equipment. This won't typically damage the pacemaker but will interfere with normal function when in contact with it. This includes:

- Arc and MIG welders
- Heavy drilling equipment
- Discharging of firearms
- Induction hobs

If you still need to use this equipment, or some electronic equipment is not listed above, speak to your cardiologist or cardiac physiologist for advice before using this equipment. Our clinic number is on the front page of this booklet.

Further information

Magnets: Do not carry magnets or place a magnet over the device site. Avoid carrying devices that contain strong magnets as they can temporarily interfere with the pacemaker function. Some new model iPhone mobiles have magnetic rings to allow for wireless charging, these must be kept away from your device.

Travel: You can safely travel abroad with your pacemaker, but it is advised to show the security staff your pacemaker identification card. You should also ask to be searched by hand as hand-held wands can interfere with your pacemaker. You may walk through metal detector arch ways briskly, but due to the metal casing of the device, it will cause the detector to alarm.

It is important to let your travel insurance company know that you have a pacemaker but this may increase your insurance premium. The British Heart Foundation website has a list of friendly insurance companies for people with a pacemaker.

Tell us what you think of this leaflet

We hope that you found this leaflet helpful. If you would like to tell us what you think, please contact: Vascular Imaging Unit, York Hospital Wigginton Road, York, YO31 8HE or telephone 01904 726065.

Patient Advice and Liaison Service (PALS)

PALS offers impartial advice and assistance to patients, their relatives, friends and carers. We can listen to feedback (positive or negative), answer questions and help resolve any concerns about Trust services.

PALS can be contacted on 01904 726262, or email yhs-tr.patientexperienceteam@nhs.net

An answer phone is available out of hours.

Teaching, training and research

Our Trust is committed to teaching, training and research to support the development of health and healthcare in our community. Healthcare students may observe consultations for this purpose. You can opt out if you do not want students to observe. We may also ask you if you would like to be involved in our research.

Leaflets in alternative languages or formats

If you would like this information in a different format, including braille or easy read, or translated into a different language, please speak to a member of staff in the ward or department providing your care.

Patient Information Leaflets can be accessed via the Trust's Patient Information Leaflet website: www.yorkhospitals.nhs.uk/your-visit/patient-information-leaflets/

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