

Pacemaker

Placing the pacemaker

The cardiologist may place a pacemaker if you have a slow heart rate or if your heart is no longer pumping properly.

The pacemaker helps your heart work as well as possible by regularly giving an electric current. You will not feel any of this. The pacemaker can have 1, 2 or 3 wires/electrodes. This depends on the reason you are getting the pacemaker. Your cardiologist will discuss this with you in advance.

A pacemaker is a small electronic device. The pacemaker consists of a battery and electronics. These are built into a titanium housing. The body tolerates this metal well. The pacemaker wires ensure that the current enters your heart. Through the end of the pacemaker wire, the pacemaker delivers the current impulse to the heart. The electronics of the pacemaker are like a very small computer. The battery ensures that the pacemaker can do its job for years.

How does the treatment work?

Here you will find all the important information about your treatment

Preparation

What do you take with you?

Please bring the following to the hospital:

- Reading material
- The medications you use at home (for 24 hours).

Dress code

You may wear your own comfortable clothing during the treatment. But note that it is important that these are clothes that you can easily put on and take off. Bring Sports or pajama pants and a short-sleeved t-shirt and clean clothes to wear after your treatment. Do not wear a bra or clothing on your upper body that contains iron. And no jewelry or piercings.

Need to cancel your appointment?

Call the outpatient clinic as soon as possible, but no later than one working day before the admission date. If you have a bad cold, cough or a fever in the days before the operation, please contact the outpatient clinic at least 24 hours in advance.

Transportation home

We strongly advise you not to drive yourself after the operation. Therefore, arrange someone who can take you home.

Resistant bacteria (BRMO)

Do you carry any resistant bacteria(e.g. MRSA or ESBL)? Then this can place yourself and fellow patients at risk during a medical treatment.

It is therefore very important to inform the outpatient clinic or department that has agreed the examination or treatment if any of the following applies to you:

You have been admitted or treated in the past 2 months, in a foreign healthcare institution

- You have been admitted to a Dutch hospital or nursing home in the past 2 months, where a resistant bacteria was present.
- You have lived in an institution for asylum seekers in the past 2 months
- You have come into contact with live pigs, veal calves or broiler chickens through your profession (for example: pig, calf and poultry farmers, veterinarians, slaughterhouse employees)
- You live on a farm or are with pigs, calves or broiler chickens
- You have at any time been infected with a resistant bacteria or have been contact with someone who carries a resistant bacterium.

If necessary, we will investigate if you are carrying a resistant bacterium or if you have a COVID-19 infection. If that is the case, we will take proper measures in the hospital to prevent the bacteria or virus from spreading.

The treatment

Where do you report?

You report to the Registration desk of the hospital at level 0 to check that all your personal information is correct and to point you to the cardiology department for your treatment.

Before treatment

You arrive at the Heartlounge where the nurse will prepare you for the treatment:

- You will be given a wristband with your name and date of birth.
- Your blood pressure and temperature are measured.
- You will receive an infusion needle in your arm. Through this infusion needle you will receive antibiotics.

During treatment

- The nurse will pick you up and take you to the Cardiac Catheterization Lab (Cat Lab)
- Before the doctor places the pacemaker, you will be given a local anesthetic.
- The cardiologist inserts the pacemaker wire or wires using X-ray screening. The cardiologist slides the pacemaker wire or wires to your heart through a vein under the collarbone. You may feel palpitations when inserting the wire. This is normal.
- The cardiologist can place the wires of the pacemaker in the right atrium, the right ventricle or on the left ventricle of the heart.
- The pacemaker technician checks that the wires are in the right place. Then the cardiologist inserts the pacemaker.
- This is placed under the skin, on the left or right pectoral muscle. This space is called pocket.
- After that, the cardiologist stitches and closes or glues the skin.

Placing a pacemaker can take 1 to 4 hours. This also depends on the number of wires that are placed.

After treatment

- After placing the pacemaker, you return to the Heart Lounge.
- If everything goes well, you can go home the same day.
- Before you go home, a photo of your chest is taken (chest X-thorax) and the nurse makes a heart film (E.C.G.). You also get a mobile heart monitoring box.
- The nurse will check the wound and tell you how to care for it at home.

What are the risks?

There are a number of complications that can occur when placing a pacemaker:

- Perforation
- Tamponade. In a heart tamponade, fluid accumulates in the pericardium that surrounds the heart. Because the fluid goes anywhere, the pressure in the pericardium increases. As a result, the heart can no longer absorb the blood properly and pump it through the body.
- Cardiac arrhythmias
- Collapsed lung
- Wrong location of the pacemaker wire(s)
- Bleeding
- Stimulation of the diaphragm
- Inflammation wound/pocket
- Inflamed tissue can get stuck to the pacemaker wire(s)
- Poor wound healing
- Moving or detaching from the pacemaker wire

What should you do at home?

Sutures/ Stitching

The wound can be closed with glue or sutures. If the cardiologist has closed the wound with sutures, the pacemaker technician removes it at the check-up after 10 to 14 days.

What do you have to take into account as a pacemaker wearer?

- Properly functioning household appliances, usually do not affect the proper functioning of the pacemaker.
- Usually, control gates at airports and in shops do not give a problem.
- We recommend that you do not wear your mobile phone at the level of the pacemaker. Make sure you always keep your phone more than 15 cm away from the pacemaker. Do not carry your mobile phone in your chest pocket on the side of the pacemaker.
- Always tell your therapist that you are wearing a pacemaker. If necessary, consult with your cardiologist or the pacemaker team.

The following may affect your pacemaker

- Certain medical procedures in which electrical devices are used such as: physiotherapy, MRI examination, electrical pain suppressants, the electrical burning away of, for example, warts and moles, radiotherapeutic radiation and surgery.
- If you are near strong transmission installations such as an (amateur) radio station.
- Unshielded electrical appliances and machines where electrical sparks can come from. Discuss this with the pacemaker team if necessary.

What do you do in case of problems at home?

If you have problems related to the operation in the first 10 days after the procedure, you can call the hospital. After 10 days you call your doctor.

- During office hours, call the Cardiology outpatient clinic at +5999-745-0023.
- In case you become unwell or experience more swelling after a pacemaker placement, call the Cardiac Monitoring Department (CCU) outside office hours at +5999-745-0023.

Questions about placing the pacemaker?

Do you have questions about the operation? Please call the secretariat of the Cardiac Catheterization Room, at +5999-745-0023

If you have any questions about the pacemaker, you can contact the pacemaker team staff Mondays through Fridays at +5999-745-0023.

Implantable Cardioverter Defibrillator (ICD) Preventing cardiac arrest

Just like a pacemaker, an ICD is a small device that ensures that your heart continues to pump at the normal pace and rhythm. As an additional function, an ICD provides an internal current shock to prevent cardiac arrest. Therefore, an ICD will be placed with you if you have a life-threatening, unpredictable cardiac arrhythmia.

Operation ICD

The cardiologist implants the ICD under the skin at the collarbone. From the ICD, conduction wires pass through the blood vessels to the heart. These wires constantly check whether your heart rhythm is good. When the ICD detects a rapid heart rhythm disorder, the device gives a shock within fifteen seconds. If necessary, this is repeated at intervals of ten to fifteen seconds. Usually the heart rhythm is back to normal after one or two shocks.

Pacemaker function

If the ICD also has a pacemaker function, the device can try to stop certain cardiac arrhythmias with a series of rapid stimuli. You do not feel any of these stimuli themselves. If your heart does not respond to this or if the arrhythmia gets worse, the ICD still gives a shock. The ICD with pacemaker function also kicks in when the heart rhythm is too slow (bradycardia). It then works like a normal pacemaker. You won't feel any of this. In a slow heart rhythm disorder, the ICD tries to restore the heart rhythm with a series of short and fast electrical stimuli.

Home monitoring

With home monitoring, the data from the ICD is sent from home. The ICD technician can use a login code to view the transmitted data from your ICD. The technician can check, among other things, whether there have been arrhythmias and how your ICD has responded to them. Technical data are also visible, such as the battery voltage of your ICD and the functioning of the electrodes. You will only be contacted in case additional details are required.

Specific knowledge

At Curaçao Medical Center, our specialists and nurses are very experienced. If your doctor prescribed you a walking recorder it is because you have symptoms such as cardiac arrhythmias, dizziness and/or run-offs. It is the intention that during the period that you wear the recorder, you perform your normal activities. You use a diary to record your complaints.

The procedure (Loop recorder)

Your doctor will have prescribed an examination with the implantable loop recorder in consultation with you. An implantable loop recorder is a device that is placed under local anesthesia under the skin, on the left side of the chest.

The procedure takes place in the Cat Lab. It is an outpatient procedure that takes 15 - 20 minutes. After the procedure, you will receive instructions from a technician or assistant. Then you can go home again.

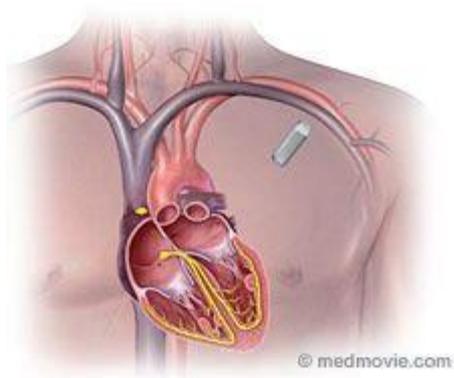


Figure 1: The walking recorder is implanted under the skin, left on the chest.

There are different types of running recorders, which are produced by different companies. The recorders have different sizes and possibilities. The cardiologist knows which type is most suitable for you.



Contact number 745-0023

Mondays to Fridays from 8.30 am to 4.30 pm



Source: Jeroen Bosch Ziekenhuis