

THE BEST CARDIOLOGY HOSPITAL IN INDIA



Best Single Speciality Hospital in Cardiology
ICICI Lombard & CNBC TV18 India Healthcare Awards 2015,
for the third consecutive year



Best Cardiac Service in India
Frost & Sullivan, 2014

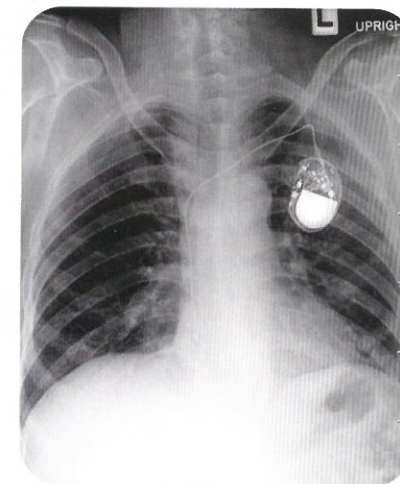
THEWEEK

Best Private Cardiac Hospital in India
The Week Magazine, 2014

 **Fortis Escorts**
HEART INSTITUTE

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PACEMAKER



 **Fortis Escorts**
HEART INSTITUTE

Pacemaker Clinic at Fortis Escorts Heart Institute has a team of certified specialists who provide advanced care for individuals diagnosed with an irregular or abnormal heartbeat, also known as an arrhythmia. The clinic assesses the overall functioning of the Pacemaker ensuring the patient's needs are being met. Our goal is to provide the patient with the most current management techniques while ensuring safe and compassionate care.

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WHAT IS A PACEMAKER?

It is a medical device that uses electrical impulses delivered by electrodes to contract the heart muscles and regulate the beating of the heart. The primary purpose of a Pacemaker is to maintain an adequate heart rate, either because the heart's natural Pacemaker is not fast enough, or there is a problem with the heart's electrical conduction system.

WHO NEEDS A PACEMAKER?

2

A Pacemaker is generally implanted into patients who have had repeated loss of consciousness or are at risk of it.

3

HOW DOES IT WORK?

- A Pacemaker consists of a battery, a computerised generator, and wires with sensors at their tips. (The sensors are called electrodes.) The battery powers the generator and a thin metal box surrounds both. The wires connect the generator to the heart
- The device helps monitor and control your heartbeat. The electrodes detect your heart's electrical activity and send data through the wires to the computer in the generator
- If your heart rhythm is abnormal, the computer will direct the generator to send electrical impulse to your heart
- Newer pacemakers can monitor your breathing and other factors too. They also can adjust your heart rate according to changes in your activity

- The Pacemaker's computer also records your heart's electrical activity and heart rhythm. Your doctor will use these recordings to adjust your Pacemaker so it works better for you
- Your doctor can program the Pacemaker's computer with an external device. He or she doesn't have to use needles or have direct contact with the pacemaker
- Pacemakers have one to three wires that are placed in different chambers of the heart. The wires in a single-chamber Pacemaker usually carry pulses to the right ventricle (the lower right chamber of your heart). The wires in a dual-chamber Pacemaker carry pulses to the right atrium (the upper right chamber of your heart) and the right ventricle. The wires help coordinate the timing of these two chambers' contractions. The wires in a bi-ventricular Pacemaker carry pulses to an atrium and both ventricles. They help coordinate electrical signalling between the two ventricles. This type of Pacemaker is called a Cardiac Resynchronisation Therapy (CRT) device. It is given to patients with Heart Failure



WHERE IS THE PACEMAKER IMPLANTED?

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It can be implanted using either the Endocardial or the Epicardial approach.

- The Endocardial (Transvenous) Approach is the most common method. A local anaesthetic is given to numb the area under the shoulder bone. An incision, about an inch, is made in the chest where the leads and Pacemaker are inserted. The lead(s) is inserted through the incision and into a vein, then guided to the heart with the aid of the Fluoroscopy (X-Ray machine). The lead tip attaches to the heart muscle, while the other end of the lead (attached to the pulse generator) is placed in a pocket created under the skin in the upper chest

It is inserted under the shoulder bone.

5

HOW IS IT IMPLANTED?

A Pacemaker is typically inserted into the patient through a simple surgery using either local anaesthetic or occasionally a general anaesthetic. The patient may be given a drug for relaxation before the surgery as well. An antibiotic is typically administered to prevent

infection. In most cases the Pacemaker is inserted below left shoulder area where an incision is made below the collar bone creating a small pocket where the pacemaker is actually housed in the patient's body. The lead or leads (the number of leads varies depending on the type of Pacemaker) are fed into the heart through a large vein using a Fluoroscope monitor. The actual surgery may take about 30 to 90 minutes.

HOW OFTEN DOES A PACEMAKER NEED TO BE CHECKED?

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Once the Pacemaker is implanted, it is periodically checked to ensure the device is operational and performing appropriately. Depending on the frequency set by the following physician, the device can be checked as often as is necessary. Routine Pacemaker checks are typically done in-office every six months, though will vary depending on the patients' or the devices' status and remote monitoring availability.

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HOW LONG DOES A PACEMAKER LAST?

Once your Pacemaker is implanted, the battery should last for an average of 6 to 10 years. When a battery wears out, the entire pulse generator is replaced, and you'll need another procedure to fix your device. The leads can be left in place — though they may need to be replaced eventually and the procedure to change the battery is often quicker and requires less recovery time than the initial implant.

Pacemakers are a standard treatment for many conditions affecting your heart's electrical system. By preventing a slow heart rate, it can treat symptoms such as fatigue, light-headedness and fainting. Because most of today's Pacemakers automatically adjust your heart rate to match your level of physical activity. They can allow you to resume a more active lifestyle.

HOW MANY DAYS ARE REQUIRED FOR THIS PROCEDURE?

8

Total hospital stay is for 3-4 days, wherein one day in the ICU and two days in the room are required for this procedure.

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HOW DO I TAKE CARE OF MY PACEMAKER?

Short term:

- Ensure you take a course of antibiotics for 1 week
- Try to lift your arm (of the side of the Pacemaker implant) until your shoulder after 24-48 hours. Remember to lift your arm (of the side of the Pacemaker implant) after 7-10 days above your shoulder so as to prevent frozen shoulder
- Ensure you do not wet the area for 7-10 days
- Ensure to take an appointment for a repeat dressing every 48 hours after discharge from the hospital
- Sutures need to be removed after 7-10 days
- If you notice any undue pain, redness or swelling, contact your doctor immediately

Long term:

- Since it is a battery operated device, you must go for a pacemaker check after 4 to 6 months as advised by your doctor
- It is also possible to have your Pacemaker remotely interrogated by the implanting doctor. You may discuss about the same with your doctor.
- At 6-10 years, pacemaker will need a change due to battery depletion.



For more information, please call at 011 4713 5000