

## **Permanent Pacemaker Implantation**

A pacemaker is a small device that's placed under the skin in your chest to help control your heartbeat particularly a slow one. Pacemakers include sensors that monitor your heart and sends a signal to speed the heart up if slow or if a beat is missed.

Pacemaker implantation requires a surgical procedure.

Prof Ruparelia will explain the specific indication for the pacemaker. This is most commonly due to an abnormally slow heart rate that is associated with symptoms - most commonly dizziness.

You will likely have undergone some investigations including an ECG, heart scan and rhythm monitoring to aid in confirming the diagnosis.

Prof Ruparelia will explain the rationale for the proposed procedure and the specific pacemaker required.

### **How should I prepare?**

There is nothing specific that you need to do prior to your procedure. Prof Ruparelia will review your medications prior to your procedure and advise you if any should be temporarily stopped.

You can eat and drink up until the procedure. You must ensure that you have someone with you to take you home after the procedure as you will be unable to drive.

### **What are the risks?**

Pacemaker implantation is associated with a 1% risk of complication that includes: infection, the requirement for revision, damage to the heart or lung and swelling / bruising.

### **The Procedure**

Pacemaker implantation is performed whilst you are awake under a local anaesthetic and usually takes approximately 1 hour.

When you arrive to the cardiac unit, general observations are taken. A small venous line is inserted in your arm through which antibiotics are administered to reduce the risk of infection. This can also be used during the procedure to administer sedation or pain relief if required.

After local anaesthetic has been administered under the collar bone a small incision is made and through this one or two insulated wires are inserted into a major vein into the heart with the aid of fluoroscopy (X-ray machine).

Once the position of the leads has been checked they are connected to the pacemaker box and this is then implanted under the skin. The incision wound is then sutured closed and area is dressed.

### **Recovery and post-procedural care**

Immediately after the procedure you are able to eat and drink. A chest X-ray is performed to further ensure optimal position of the leads and exclude a complication. A further pacemaker check is also often performed to ensure optimal functioning of the device.

You will be given specific instructions in person by Prof Ruparelia following your procedure. This includes ensuring that you avoid moving your arm above 90 degrees and avoiding strenuous activities and heavy lifting for a minimum of 4 weeks. After this, you should be able to return to your normal activities.

Before you leave you will be given a pacemaker ID card and an appointment for a follow up. Your pacemaker will then require long-term follow up to ensure its continued optimal functioning.

Following a pacemaker implantation procedure, in accordance with DVLA guidelines you are not permitted to drive for 1 week.