

# Permanent Pacemaker Implantation Surgery Instructions

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In today's technologically advanced era, artificial cardiac pacemakers have become a common treatment for bradycardia (slow heart rate). Powered by a powerful battery, this device utilizes wires to transmit electrical pulses to electrodes implanted in the heart, stimulating cardiac contractions. For most artificial cardiac pacemakers, electrode wires are inserted from the veins above the chest. Under X-ray guidance, the tip of the electrode is fixed in either the atrium or ventricle. Finally, the battery unit is implanted beneath the skin above the chest, completing the implantation procedure. Another type is the leadless capsule cardiac pacemaker, which is inserted into the heart through a catheter from the veins in the leg.

## ■ Before Surgery

- Fill out the surgical consent form.
- Skin preparation: Upper half of the front chest, abdomen, or groin area.
- NPO (nothing by mouth) before surgery.
- Change into surgical attire.
- Insertion of intravenous (IV) catheter.

## ■ After Surgery

- For the first 72 hours, avoid raising the operated arm above the shoulder to prevent pacemaker dislodgement or hematoma.
- Wound dressing change after 48 hours, then every two to three days until the wound heals (approximately one to two weeks).
- For leadless capsule pacemakers, bed rest for 6 hours postoperatively, suture removal the next day, then dressing change every two days until the wound heals (about one week).

## ■ Daily Care

### ■ Wound care :

- ◆ Keep the wound dry before suture removal, usually 7-10 days postoperatively.
- ◆ Monitor for signs of wound infection during hospitalization and after discharge, such as redness, swelling, heat, pain, fever, etc.
- ◆ To keep the wound flat, if there is no sign of infection, use paper tape for 3-6 months after suture removal. Change the tape if it becomes wet or dirty.

### ■ Daily Activities :

- ◆ Resume normal activities after one to two months, but be cautious to avoid direct impact on the pacemaker.
- ◆ Permanent pacemaker placement does not affect sexual activity between spouses.
- ◆ Stay at least three meters away from high-voltage electrical sources, as they may interfere with pacemaker function. However, typical household appliances do not cause interference; always check

for electrical leakage before use.

- ◆ Carry a pacemaker identification card at all times. Inform healthcare providers about the pacemaker before any other medical treatment.

■ Pulse Measurement :

- ◆ Measure the pulse rate upon waking up before getting out of bed, counting the complete beats for one minute. If the measured result is five or more beats below the set rate, return to the hospital for evaluation.

- ◆ Measure the pulse by gently pressing the index and middle fingers on the radial artery below the thumb joint on the palm side. This is the radial pulse, and count the beats for one minute.

■ Follow-up visits :

Return to the hospital if experiencing the following

- ◆ Dizziness, shortness of breath, chest tightness, lower limb swelling, or weight gain.
- ◆ If the pulse measurement is five or more beats below the set rate.

- ◆ If signs of wound infection appear (redness, swelling, heat, pain, drainage), seek medical attention.
- ◆ Follow the physician's instructions for regular follow-up visits.

The information provided is for reference only. Please discuss your clinical status with your physician.

If you have any questions, please contact

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