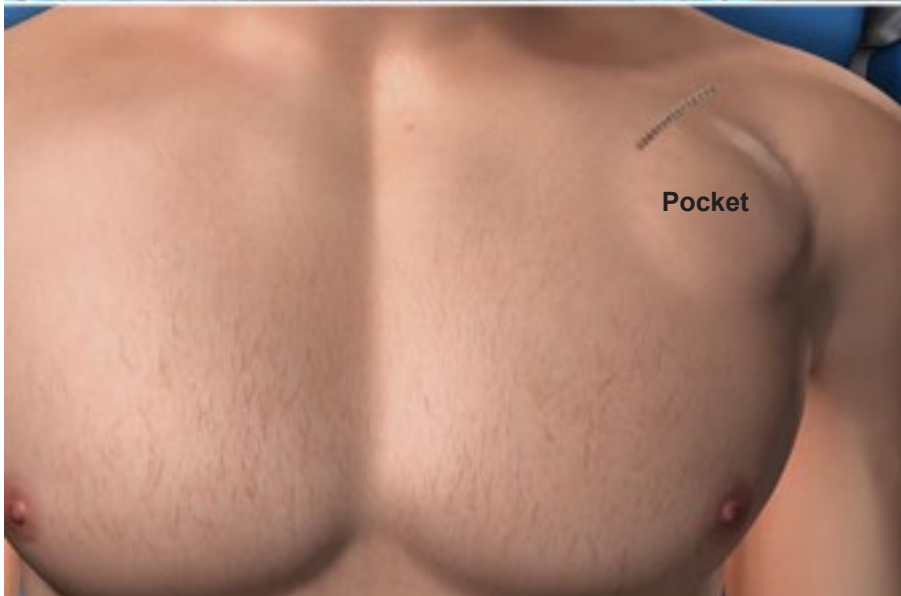
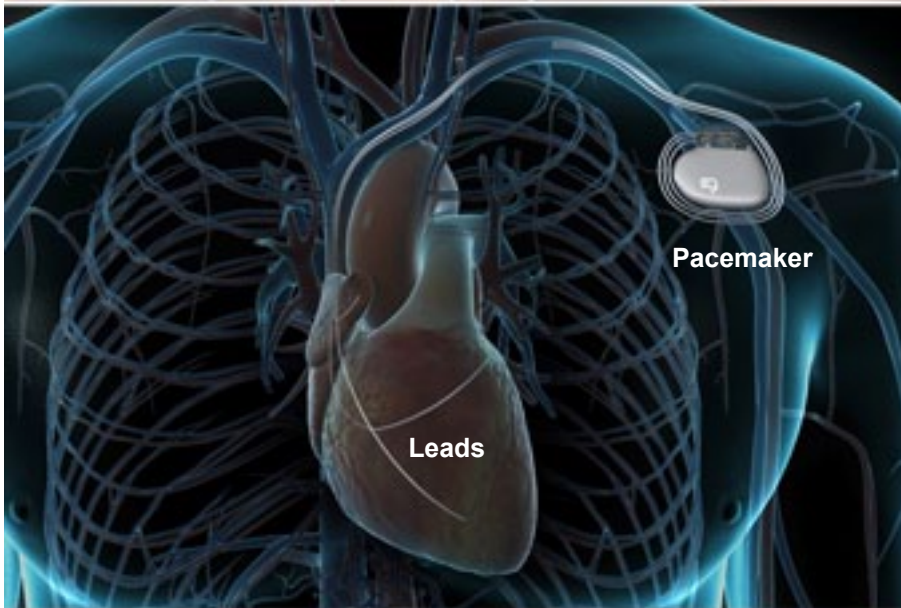
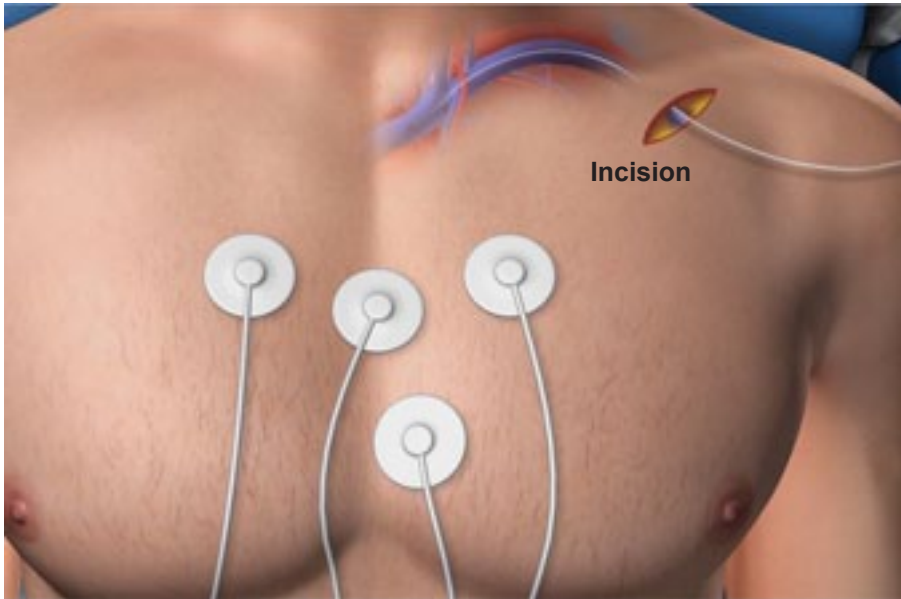




Pacemaker Implantation (Endocardial Approach)



Overview

In this procedure, an impulse generator (called a pacemaker) is implanted in the chest to regulate the rhythm of the heart.

Preparation

In preparation for the procedure, the patient is positioned and the insertion site on the chest is anesthetized. The patient is given a sedative. This will make the patient feel relaxed and drowsy. Several monitors are attached to the patient's chest and body. The surgical care team will closely watch these monitors to track the patient's heart rhythm and blood pressure during the procedure.

Implanting the Lead

The physician creates one or more small incisions to access a large vein in the chest. The physician inserts a lead into this vein and carefully guides it into the heart with the help of a fluoroscope (a camera that creates a real-time moving x-ray). Typically, the lead is placed in the heart's right ventricle. For some patients, two leads may be implanted (one in the right atrium and one in the right ventricle). This type of pacemaker is called a dual-chamber pacemaker.

Testing the Lead

After the lead is in position, the lead is temporarily connected to a device that sends a series of impulses to the heart. This test is called "pacing." It allows the physician to ensure the lead is working properly.

Implanting the Pacemaker

When the test is complete, the testing device is disconnected and the lead is attached to the pacemaker. The physician creates a small pocket beneath the skin of the chest and slips the pacemaker into this pocket. Once the pacemaker is activated, it will generate electrical impulses and send these signals through the leads and into the heart.

End of Procedure and Aftercare

When the implantation is complete, the physician closes the incisions. The physician may adjust the settings of the pacemaker with an external programming device to fine-tune the heart's rhythm. The patient will remain in the hospital overnight so the heart can be closely monitored.