

# Pacemaker Surgery

A normal heartbeat is created by electrical impulses that stimulate the cardiac muscle to contract. If this natural “pacemaker” or any part of the heart’s electrical conduction system is dysfunctional, the normal heartbeat may become too slow (bradycardia) or fast (tachycardia). This is termed “arrhythmia”. In some cases, physicians will recommend implantation of a pacemaker to correct an arrhythmia.

Pacemakers are electronic devices that may stimulate either the upper chambers of the heart (atria), lower chambers (ventricles) or both. In addition, some pacemakers are built with an internal device that can shock the heart back into a regular rhythm in the event a dangerous arrhythmia (implantable cardioverter defibrillator).

Pacemakers are most commonly used to correct an abnormally slow heartbeat by sending electrical impulses to one or more chambers of the heart. However, there are a variety of conditions that may call for pacing.

Pacemakers may be either permanent or temporary. A permanent pacemaker is implanted into a patient’s chest during a surgical procedure. A short stay in the hospital may be required, and some patients may need to take medications afterward that help the heart maintain a normal rhythm (antiarrhythmics). Once the pacemaker is in place, it runs on batteries that can last for about 5 to 10 years. Pacemaker batteries will not run out unexpectedly. Physicians can detect when the battery is running low during a routine office visit and the pacemaker can then be replaced.

