

# Treatments

The underlying cause of an arrhythmia provides the basis for selecting the best treatment. Treatments fall into several main categories along a continuum from the least to most invasive. In general, the least invasive treatment that effectively controls the arrhythmia is the treatment of choice. Options include lifestyle changes, medication, devices, ablation procedures, and surgery, including the implantation of pacemakers and defibrillators.

## Lifestyle Changes

Since other heart disorders increase the risk of developing arrhythmias, lifestyle changes often are recommended. In addition, improving health can lessen the symptoms of arrhythmias and other heart disorders as well as prove beneficial to overall patient health.

## Medications

Medications can control abnormal heart rhythms or treat related conditions such as high blood pressure, coronary artery disease, heart failure and heart attack. Drugs also may be administered to reduce the risk of blood clots in patients with certain types of arrhythmias.

## Electronic Devices

By delivering a controlled electric shock to the heart, defibrillators or cardioverters “shock” the heart back into a normal heart rhythm.

Sometimes the devices are external, such as in an emergency situation. Often, the electronics are implanted in the patient’s chest.

### Implanted Cardioverter Defibrillators (ICDs)

ICDs are 99 percent effective in stopping life-threatening arrhythmias and are the most successful therapy to treat ventricular fibrillation, the major cause of sudden cardiac death. ICDs continuously monitor the heart rhythm, automatically function as pacemakers for heart rates that are too slow, and deliver life-saving shocks if a dangerously fast heart rhythm is detected.

### Pacemakers

Devices that “pace” the heart rate when it is too slow (bradycardia) can take over for the heart’s natural pacemaker, the sinoatrial node, when it is functioning improperly. Pacemakers monitor and regulate **over** ➤

## TREATMENT DECISIONS

The first step in treating any arrhythmia is determining the underlying cause of the problem. Then, patients and clinicians can discuss treatment options factoring in the circumstances of each individual case. The following are some of the considerations when determining appropriate treatment:

- The nature and severity of the heart rhythm disorder and its symptoms
- Underlying diseases and other conditions that contribute to the disorder or affect the patient's health or quality of life
- The patient's age, overall health and personal and family medical history
- Medications and other therapies that the patient may be using for other conditions



## Treatments *continued*

the rhythm of the heart and transmit electrical impulses to stimulate the heart if it is beating too slowly.

### **Devices for Heart Failure**

The U.S. Food and Drug Administration (FDA) recently approved a special type of pacemaker for certain patients with heart failure. In Cardiac Resynchronization Therapy, an implanted device paces both the left and right ventricles (lower chambers) of the heart simultaneously. This resynchronizes muscle contractions and improves the efficiency of the weakened heart.

### **Catheter Ablation**

In this procedure, one or more flexible, thin tubes (catheters) are guided via x-ray into the blood vessels and directed to the heart muscle. A burst of radiofrequency energy destroys very small areas of tissue that give rise to abnormal electrical signals.

### **Surgery**

Although surgery is sometimes used to treat abnormal heart rhythms, it is more commonly elected to treat other cardiac problems, such as coronary artery disease and heart failure. Correcting these conditions may reduce the likelihood of arrhythmias.