

# PROJECT FLOW OF ARRHYTHMIA

## Arrhythmia

An arrhythmia is an irregular heartbeat. If you have an arrhythmia, your heart may beat faster or slower than others without arrhythmia. There are several different conditions might cause your heart to beat abnormally, and treatment depends on the cause. Talk to your healthcare provider if you feel like your heart is racing, if you feel dizzy or lightheaded, or you have chest pain.

### What are the symptoms of an arrhythmia?

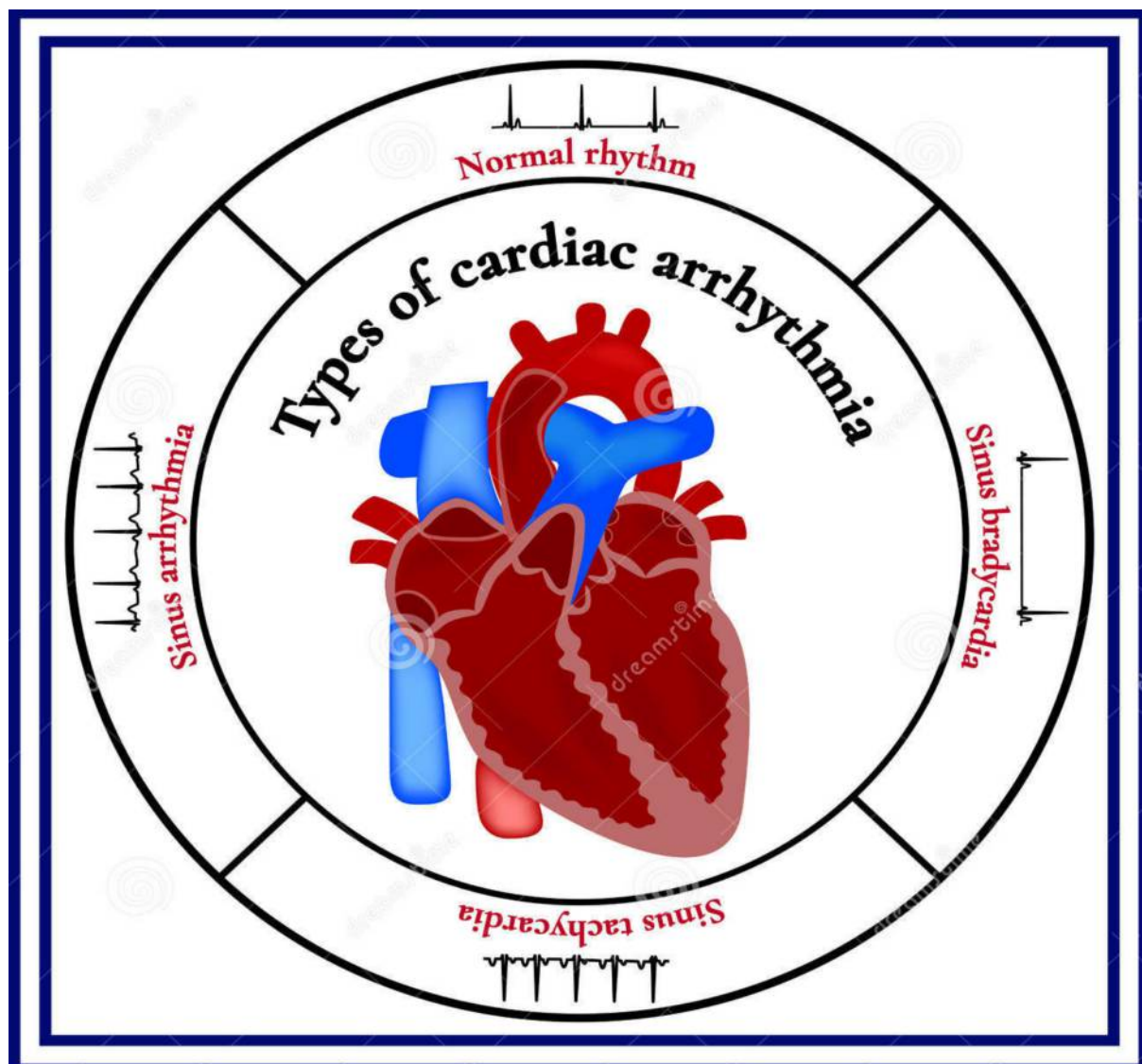
An arrhythmia may be “silent” and not cause any symptoms. A doctor can find an irregular heartbeat during an examination by taking your pulse, listening to your heart or performing diagnostic tests. If symptoms occur, they may include:

- [++Palpitations++](#): A feeling of skipped heartbeat or that your heart is “running away,” fluttering or doing “flip-flops.”
- Pounding in your chest.
- Dizziness or feeling lightheaded.
- Shortness of breath.
- Chest discomfort.
- Weakness or fatigue (feeling very tired).
- Weakening of the heart muscle or low ejection fraction.

## What causes arrhythmias?

Arrhythmias can be caused by:

- Coronary artery disease.
- Irritable tissue in the heart (due to genetic or acquired causes).
- High blood pressure.
- Changes in the heart muscle (cardiomyopathy).
- Valve disorders.
- Electrolyte imbalances in your blood, such as sodium or potassium imbalances.
- Injury from a heart attack.
- The healing process after heart surgery.
- Other medical conditions.



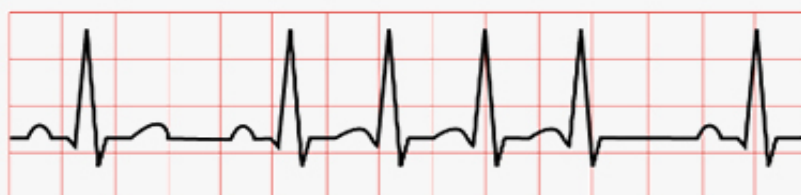
## How is an arrhythmia diagnosed?

If you have symptoms of an arrhythmia, you should make an appointment with a cardiologist. You may want to see an electrophysiologist — a cardiologist who has additional specialized training in the diagnosis and treatment of heart rhythm disorders. After assessing your symptoms and performing a physical examination, the cardiologist may perform a variety of diagnostic tests to help confirm the presence of an arrhythmia and indicate its causes. Some tests that may be done to confirm the presence of an irregular heart rhythm include:

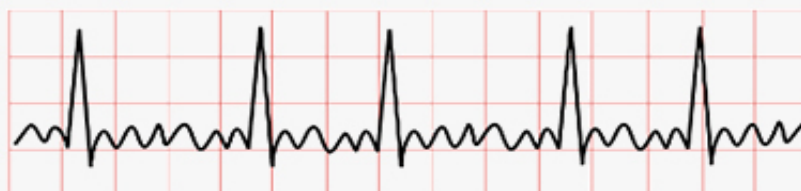
- **Electrocardiogram (ECG or EKG):** A picture of the electrical impulses traveling through the heart muscle. An ECG is recorded on graph paper, through the use of electrodes (small, sticky patches) that are attached to your skin on the chest, arms and legs.
- **Ambulatory monitors**, such as the Holter monitor.
- **Stress test:** A test used to record arrhythmias that start or are worsened with exercise. This test also may be helpful to determine if there is underlying heart disease or coronary artery disease associated with an arrhythmia.
- **Echocardiogram:** A type of ultrasound used to provide a view of the heart to determine if there is heart muscle or valve disease that may be causing an arrhythmia. This test may be performed at rest or with activity.

### Types of arrhythmia

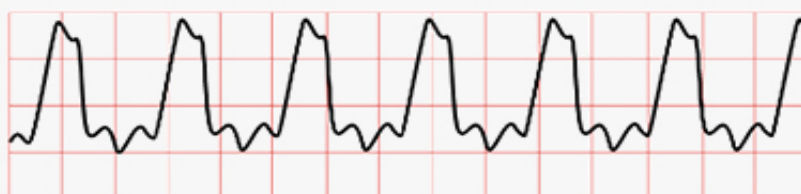
Atrial fibrillation



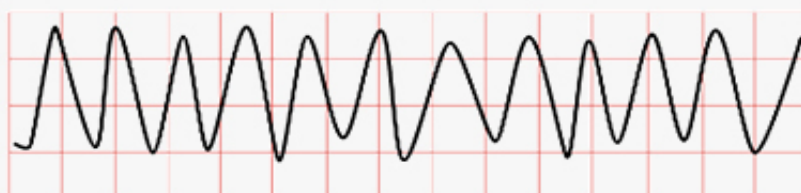
Paroxysmal atrial tachycardia



Ventricular tachycardia



Ventricular fibrillation



## What medications treat arrhythmias?

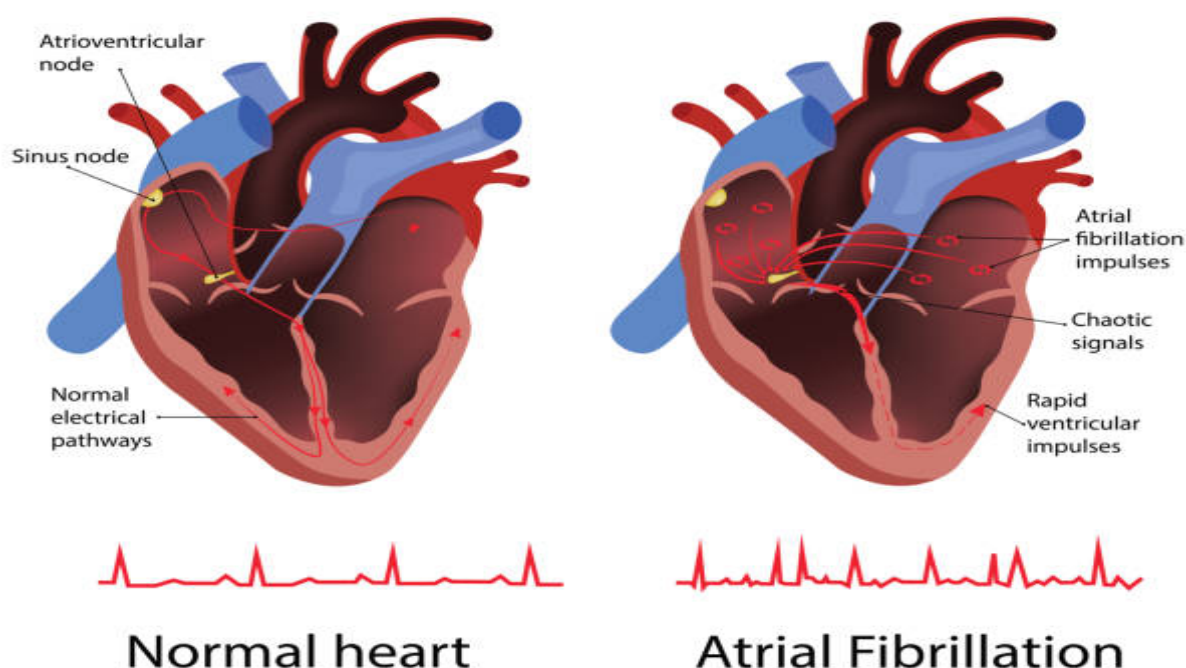
A variety of drugs are available to treat arrhythmias. Because everyone is different, it may take trials of several medications and doses to find the one that works best for you. Several types of drugs are used:

- Anti-arrhythmic drugs are drugs used to convert the arrhythmia to sinus rhythm (normal rhythm) or to prevent an arrhythmia.
- Heart-rate control drugs are drugs used to control the heart rate.
- Anticoagulant or antiplatelet therapy are drugs, such as warfarin (a blood thinner) or aspirin, that reduce the risk of clots forming or having strokes.
- Medications used to treat related conditions that may be causing an abnormal heart rhythm.

It's important to know:

- The names of your medications.
- What they are for.
- How often and at what times to take them.

## Heart arrhythmia





## What devices are used to treat arrhythmias?

A cardiologist may insert certain devices during a procedure in the electrophysiology lab.

A [permanent pacemaker](#) is a device that sends small electrical impulses to the heart muscle to maintain a normal heart rate. The pacemaker has a pulse generator (which houses a battery and a tiny computer) and leads (wires) that send impulses from the pulse generator to the heart muscle, as well as sense the heart's electrical activity. Pacemakers are mostly used to prevent your heart from beating too slowly.

An [implantable cardioverter-defibrillator \(ICD\)](#) is a sophisticated device used primarily to treat ventricular tachycardia and ventricular fibrillation, two life-threatening heart rhythms. The ICD constantly monitors the heart rhythm. When it detects a very fast, abnormal heart rhythm, it delivers energy to the heart muscle to cause the heart to beat in a normal rhythm again.

## What are some lifestyle-related risk factors for arrhythmias?

Here are some ways to change these arrhythmia risk factors that are related to arrhythmias.

- If you smoke or use tobacco products, quit.
- Limit your intake of alcohol.
- Limit or stop using caffeine. Some people are sensitive to caffeine and may notice more symptoms when using caffeinated products (such as tea, coffee, colas and some over-the-counter medications).
- Don't take stimulants. Beware of stimulants used in cough and cold medications and herbal or nutritional supplements. Some of these medications contain ingredients that promote irregular heart rhythms. Read the label and ask your doctor or pharmacist what medication would be best for you.
- Control high blood pressure.
- If you have obesity, working toward a weight that's healthy for you can lower your risk for arrhythmia.
- Control blood sugar levels.
- Treat sleep apnea. Treatment may decrease your risk for arrhythmia.
- If you notice that your irregular heart rhythm occurs more often with certain activities, you should avoid them.