



# Atrial Fibrillation

## Atrial Fibrillation

Atrial fibrillation means an irregular heartbeat.

An electrical impulse causes the heart to beat. Normally, the electrical impulses pass through the heart in a regular rhythm. Sometimes the regular rhythm is disrupted, causing an irregular heartbeat. This is atrial fibrillation.

Atrial fibrillation often occurs in people who have a history of heart disease, coronary artery disease, high blood pressure (hypertension), or an overactive thyroid (hyperthyroidism).

Sometimes atrial fibrillation occurs in healthy people. Usually it does not disrupt a healthy lifestyle.

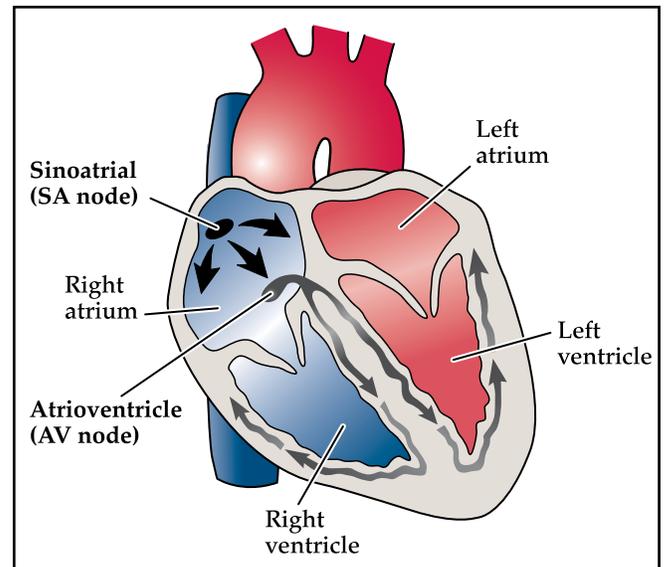
## Electrical Function of the Heart

The heart is divided into four chambers: two upper chambers (atria) and two lower chambers (ventricles).

The electrical impulse that causes a heart to beat begins in the sinoatrial (SA) node and goes down to the atrioventricular (AV) node. From there the impulse spreads through the ventricle. This causes a heart at rest to beat between 60 to 100 times per minute.

## How Atrial Fibrillation Happens

The atria and ventricles of the heart actually are separate heart pumps, but all are stimulated by electricity which originates in the atria. In atrial fibrillation, the atrium quiver or fibrillate. The ventricles receive erratic impulses from the atria and so contract in an irregular and uneven pattern.



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The ventricles, atria and nodes of the heart.

## Signs of Atrial Fibrillation

The following are signs to be aware of:

- feeling an irregular heartbeat
- feeling a sense of anxiety
- feeling a tightness in the chest that won't go away
- feeling tired, rundown, or weak
- feeling short of breath when exercising or working
- feeling palpitations or racing of the heart
- feeling faint.

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## How It Is Diagnosed

A simple test called an electrocardiogram (EKG) can find out if you have atrial fibrillation. This test can be done in your doctor's office. The EKG shows the electrical flow in your heart. This is recorded onto paper. Your doctor can look at the rhythm and determine if you have atrial fibrillation.

## The Risks of Atrial Fibrillation

Risks include stroke or heart failure. The risk for stroke is low, but is up to five times greater in people with atrial fibrillation than those without it. Heart failure, when the heart loses its ability to pump enough blood through the body, can happen in people who have had atrial fibrillation for a long time. Seeing your doctor for treatment may lower these risks.

## Treatments for Atrial Fibrillation

Your doctor may advise one or more of the following treatments.

### ■ anticoagulants

Warfarin (Jantoven<sup>®</sup>), aspirin or both may reduce the risk of stroke by slowing down the clotting of your blood. Strokes are usually caused by clots that dislodge and flow to your brain.

### ■ rate-controlling medicines

These are used to keep your heart rate in a normal range. You can tolerate atrial fibrillation better when your heart rate is lowered.

### ■ antiarrhythmic medicines

These are used to return your heart to its normal rhythm.

### ■ electrical cardioversion

This uses an electrical shock to return your heart back to a normal rhythm. This can be done with or without antiarrhythmic medicine, but it usually needs a time of an anti-coagulation.

### ■ electrophysiology study/ablation

This is a study of the electrical system of your heart. For a short time, wires are put in your heart through veins.

This study may lead to an ablation treatment. This means a special catheter will be used to deliver high-frequency energy to destroy a tiny portion of the problem heart tissue from the area of arrhythmia (abnormal heart rhythm).

If there is still an abnormal heart rhythm after an ablation treatment, a permanent pacemaker may be placed.