

Heart Rhythm Problem (Arrhythmia)

What is arrhythmia?

Arrhythmia is an abnormal rhythm of your heartbeat. Your heart may beat faster or more slowly than normal, or it may skip beats. This can make it harder for the heart to pump enough blood to your body.

Another term for arrhythmia is dysrhythmia.

What is the cause?

An electrical signal in your heart starts each heartbeat, causing the heart muscle to squeeze (contract). Normally, this signal starts in the upper right chamber of the heart (the right atrium) at a place called the sinus node. The signal then follows normal pathways to the upper left atrium and to the lower chambers of the heart (the ventricles). You may have an abnormal heart rhythm if the electrical signals don't follow the normal pathways or the nerve cells that make the electrical signals don't work right.

Common causes of heart rhythm problems are conditions that damage the heart, like coronary artery disease, heart attack, or heart failure.

Problems with the heart valves are another common cause. The heart has 4 valves that open and close with each heartbeat to help blood flow in the right direction through the heart.

Some other causes of heart rhythm problems include:

- Health problems, such as a stroke, lung disease, diabetes, overactive thyroid gland, or high blood pressure
- Abuse of alcohol or drugs, such as cocaine
- Some medicines, such as cold medicines
- Some natural remedies, such as ephedra, guarana, and licorice

Exercise or emotional stress can make your heart beat faster or skip beats, but this is usually not a cause for concern.

Sometimes no cause for arrhythmia can be found.

What are the different types of arrhythmia?

There are many different types of arrhythmia. The heart may beat very slowly (bradycardia) or very fast (tachycardia). The abnormal rhythm may start in either the upper or the lower heart chambers. The 2 main types of arrhythmia are:

- **Atrial arrhythmia:** The electrical signals don't start in the normal place in the right atrium and don't travel normally. This can cause part or all of the heart to beat very fast and not in a normal pattern. This affects the ability of the heart to pump blood to the rest of the body.

- **Ventricular arrhythmia:** The abnormal rhythm starts in the lower chambers of the heart. The heart beats in a rhythm that may be irregular or very fast. If severe and untreated, it can be life-threatening.

What are the symptoms?

Some arrhythmias do not cause any symptoms, or the symptoms may come and go. Your body may simply adjust to the change in rhythm over time.

When you do have symptoms, they may include:

- Feeling like your heart is beating too fast or too hard or skipping beats or fluttering
- Feeling dizzy or lightheaded
- Fainting
- Feeling tired or weak
- Chest pain
- Shortness of breath

How is it diagnosed?

Your healthcare provider will ask about your symptoms and medical history and examine your heart and lungs. Tests may include:

- An ECG (also called an EKG), which measures and records your heartbeat. You may have an ECG while you are resting or while you exercise on a treadmill. You may also be asked to wear a small portable ECG monitor for a few days or sometimes a couple weeks.
- Blood tests
- Chest X-ray
- An echocardiogram, which uses sound waves (ultrasound) to show the structures of the heart and how well the heart muscle is pumping
- An angiogram, which uses dye injected into a vein and X-rays to look for narrowing or blockages of blood vessels
- An electrophysiology study (EPS), which uses tiny wires put into your heart through your veins to look at the electrical pathways in your heart

How is it treated?

The goal of treatment is to help the heart keep a normal rhythm. The right treatment for you depends on the cause of the arrhythmia, how often you have symptoms, and the severity of your symptoms. If you have no symptoms, or your symptoms are fairly mild, you may not need treatment.

If a health problem like a leaky heart valve or heart failure is causing the arrhythmia, treating the health problem may also treat the arrhythmia. Other possible treatments are:

- Medicine to control the heart rate
- Surgery to:

- Make small cuts or scars in the heart that will block abnormal electrical pathways (cardiac ablation)
- Put an electronic device, such as a pacemaker, under the skin in your chest to help control the heartbeat
- Improve blood flow to the heart if you have coronary artery disease (bypass surgery)

How can I take care of myself?

Follow your healthcare provider's instructions. Ask your provider:

- How and when you will hear your test results
- How long it will take to recover
- What activities you should avoid and when you can return to your normal activities
- How to take care of yourself at home
- What symptoms or problems you should watch for and what to do if you have them

Make sure you know when you should come back for a checkup.

How can I help prevent arrhythmia?

The best prevention is to have a heart-healthy lifestyle:

- Keep a healthy weight.
- Eat a healthy diet.
- Stay fit with the right kind of exercise for you.
- Decrease stress.
- Don't smoke.
- Limit your use of alcohol.

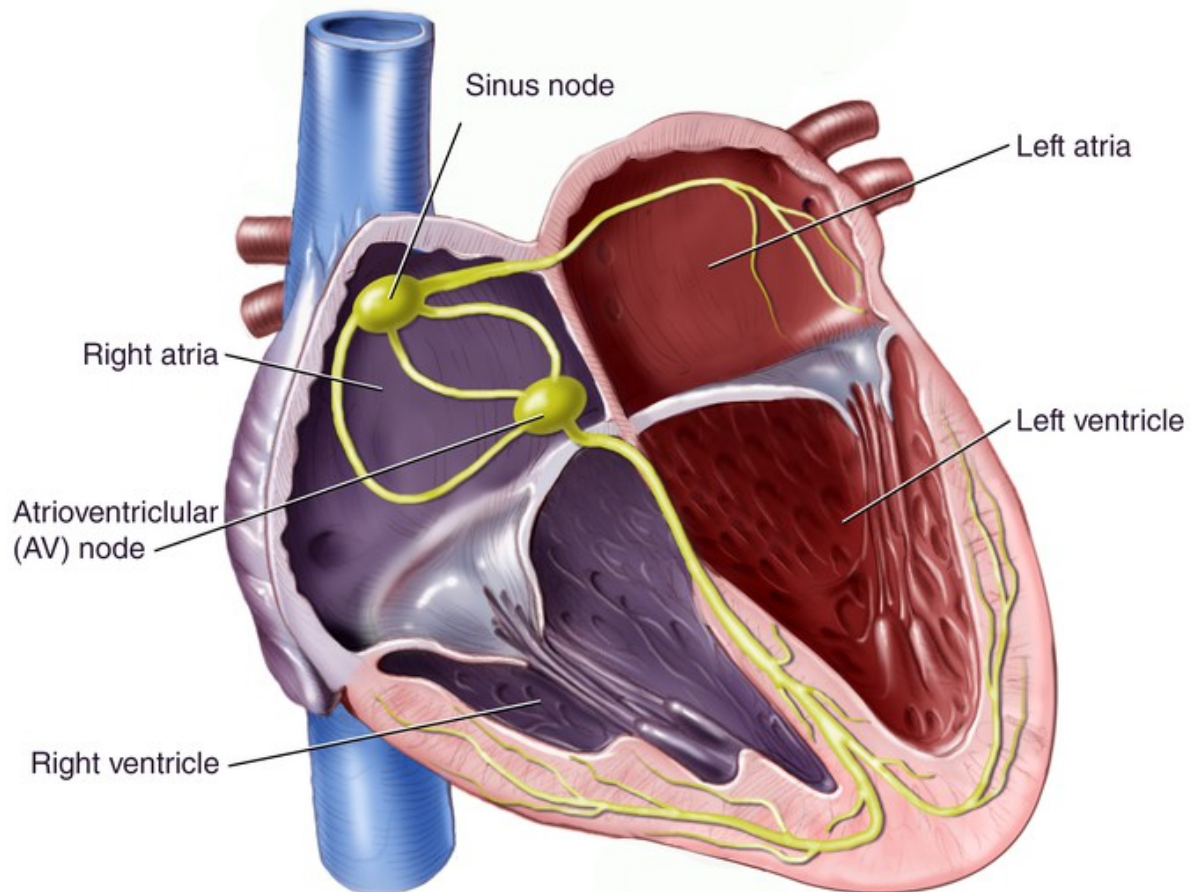
Let your healthcare provider know if you have a family history of arrhythmia.

If you have heart disease or high blood pressure, follow your healthcare provider's instructions for treatment.

Developed by RelayHealth.

This content is reviewed periodically and is subject to change as new health information becomes available. The information is intended to inform and educate and is not a replacement for medical evaluation, advice, diagnosis or treatment by a healthcare professional.

Nodes Responsible for Cardiac Rhythm



The electrical impulse starts in the sinus node. It travels to both atria, causing them to contract, and triggers the AV node. The impulse travels from the AV node, stimulating contraction of the ventricles.

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