

# Wolff-Parkinson-White Syndrome

## What is Wolff-Parkinson-White syndrome?

Wolff-Parkinson-White (WPW) syndrome is a condition in which there is an extra electrical pathway between the upper chambers of the heart (the atria) and the lower chambers of the heart (the ventricles). It can cause a very fast heartbeat.

WPW may cause symptoms as early as the first year of life or not until as late as age 60.

## 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 pathways to the upper left atrium and to the lower chambers of the heart (the ventricles).

In WPW, the extra electrical pathway between the upper and lower chambers may cause a short circuit and fast heartbeat. Instead of its normal rate of 70 to 80 beats a minute, the heart may beat over 200 times a minute. The fast heartbeat is called supraventricular tachycardia (SVT).

Some people are born with this extra pathway. The cause of the extra pathway is not known.

## What are the symptoms?

Most of the time, people with WPW have no symptoms. If the heart starts beating very fast, the most common symptom is palpitations. You may feel your heart pounding rapidly in your chest. Sometimes you feel the pounding in your throat or neck. Sometimes the heart may beat so fast that you get dizzy or lightheaded. You may even pass out.

## How is it diagnosed?

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

- ECG (also called an EKG or electrocardiogram), which measures and records your heartbeat. You may be asked to wear a small portable ECG monitor for a few days or longer.
- Electrophysiologic study (EPS), which uses tiny wires put into your heart through your veins to look at the electrical pathways in your heart
- Echocardiogram, which uses sound waves (ultrasound) to show the structures of the heart and how well the heart is pumping
- Angiogram, which uses X-rays and a thin, flexible tube put into a vein to check the structure of the heart

- MRI (magnetic resonance imaging), which uses magnetism, radio waves, and a computer to make pictures of the heart and blood vessels

## How is it treated?

The goal of treatment is to help the heart keep a normal rhythm. Your treatment depends on how often you have symptoms and the severity of your symptoms.

You may not need treatment if attacks of a fast heartbeat are rare, don't last long, and don't cause serious symptoms.

Possible treatments are:

- **Medicine** to control the heart rate
- **Electrical cardioversion:** First, you will be given medicine called anesthesia to keep you from feeling pain during the procedure. Then your chest will be given an electrical shock. The electrical shock should make your heart start beating normally again. You may need medicine to keep your heart rhythm normal after this procedure.
- **Ablation:** Ablation is a procedure that uses a small tube called a catheter to deliver energy to the inside of the heart. The energy (usually radio waves) scars small areas of heart tissue. The scars block abnormal electrical pathways and help you have a normal heart rhythm. With some types of ablation treatment, you will also need a pacemaker. A pacemaker is an electronic device put under the skin of your chest to help control the heartbeat.

## How can I take care of myself?

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

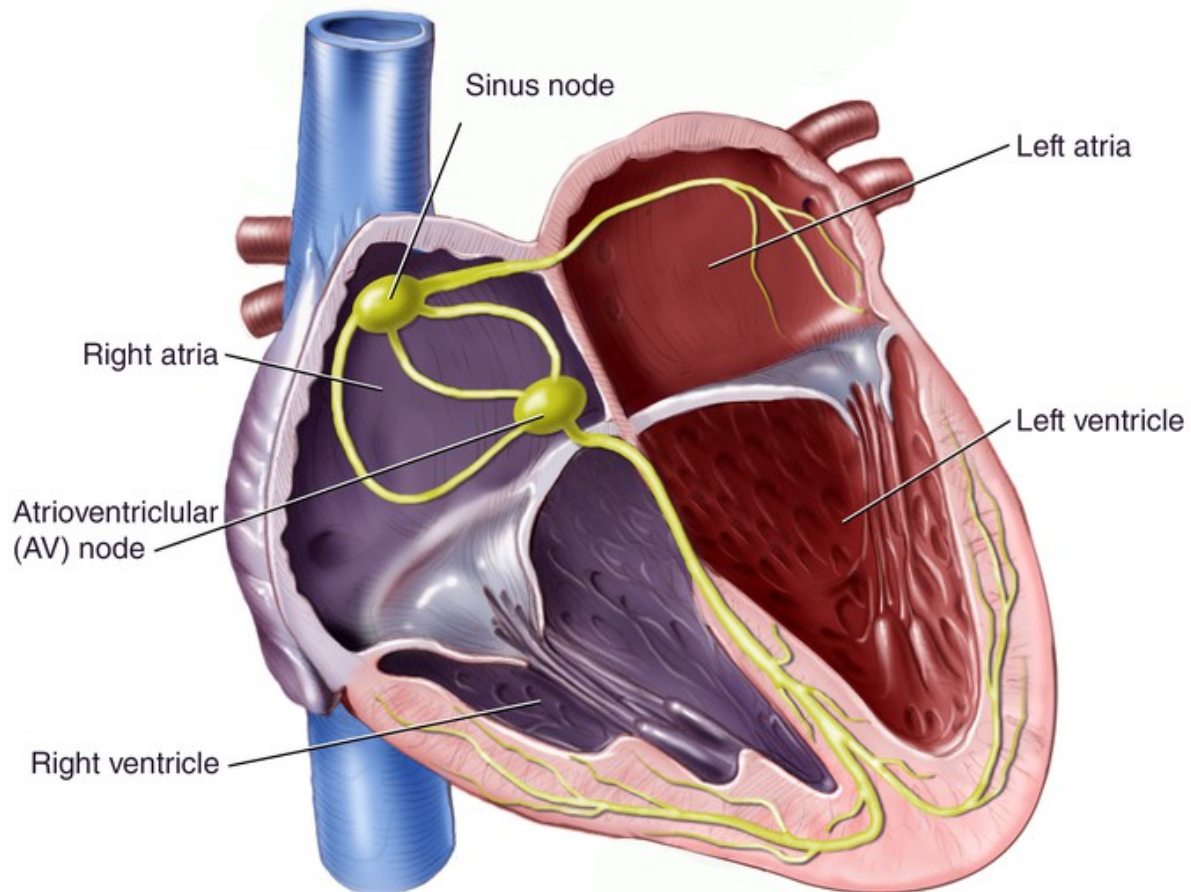
- How and when you will hear your test results
- How long it will take to recover
- What activities you should avoid and when you can return to your normal activities
- How to take care of yourself at home
- What symptoms or problems you should watch for and what to do if you have them

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

Developed by RelayHealth.

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## 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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