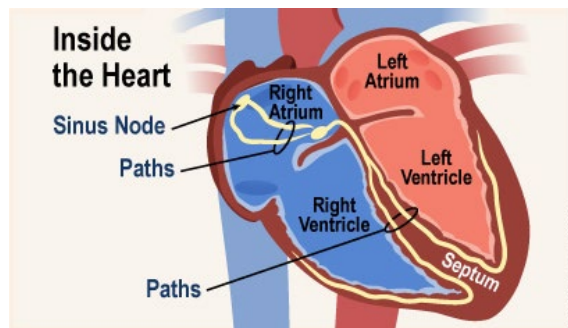
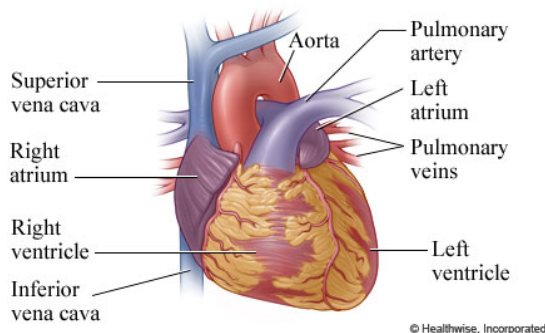


## Supraventricular Tachycardia (SVT)

The heart is an electrical pump. In a normal heart rhythm, the sinus node (SA) is the normal pacemaker of the heart. It controls the heart rate. It begins each heartbeat with an electrical signal in the top chambers of the heart, the atria. The electrical signal of the heart then passes through the heart and through the normal AV node from the atrium to the ventricle, causing a heartbeat.

### What is supraventricular tachycardia (SVT)?

During SVT, the electricity passes from the atria through the normal AV node to the lower chambers, the ventricles. The signal then loops back to the atria through an abnormal pathway, labeled at right as the abnormal connection. Each loop causes a heartbeat.



In most cases, SVT is not a cause for concern. There are some cases though, such as with Wolff-Parkinson-White syndrome, where patients may be at a higher risk for other heart problems. Please discuss your case with your doctor.

### What are the symptoms of SVT?

Symptoms of SVT may include:

- Palpitations (the feeling that the heart is beating quickly or skipping beats)
- Sudden onset of the fast heart rate
- Shortness of breath
- Dizziness

In some patients, these symptoms may happen with exercise, activity, or caffeine.

### How common is SVT?

About 1 in 1,000 children will have SVT. If a child is found to have SVT before age 1, there is about a 50 percent chance it will resolve on its own. If it is found after age 1, it will most likely not resolve on its own.

### How do you treat SVT?

#### Vagal Maneuvers

These techniques can be used to help the heart slow down **during** an episode. They may help the heart to reset and return to a normal rhythm. These techniques include:

- Blowing on your finger like a trumpet (to increase the pressure in your chest)
- Bearing down, like when having a bowel movement (also to increase the pressure in your chest)
- Standing on your head for 1 to 2 minutes.

- Placing cold ice water on a washcloth and placing the washcloth over your face for 5 to 10 seconds.

If vagal maneuvers do not slow down your heart back to a normal rate, or if you have other symptoms, you should go to your local hospital or ER for treatment.

### **Can I prevent future SVT episodes?**

#### **Medicines**

Some medicines may lower the chance of having an episode of SVT. The most common medicines used to prevent SVT include beta blockers, calcium channel blockers and digoxin. Though these can lower your chance for a future SVT episode, they do not eliminate the risk.

### **Electrophysiology (EP) Study with Ablation**

This is a procedure that can fix the cause of the SVT. Catheters are first placed in the heart (cardiac catheterization). Then, heat or cold may be sent through the catheters to destroy the heart tissue that causes the SVT.

#### **Who to Call**

Pediatric Cardiology  
American Family Children's Hospital  
**608-263-6420 Option 2**  
[uwhealthkids.org/hearts](http://uwhealthkids.org/hearts)

After hours and weekends ask for the electrophysiologist on call.

Your health care team may have given you this information as part of your care. If so, please use it and call if you have any questions. If this information was not given to you as part of your care, please check with your doctor. This is not medical advice. This is not to be used for diagnosis or treatment of any medical condition. Because each person's health needs are different, you should talk with your doctor or others on your health care team when using this information. If you have an emergency, please call 911. Copyright © 2/2023 University of Wisconsin Hospitals and Clinics Authority. All rights reserved. Produced by the Department of Nursing. HF#7698