



Patient Guide to

Supraventricular Tachycardia (SVT)

UWHealth
American Family
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What is SVT?

In a normal heart rhythm the sinus node, which is the normal pacemaker of the heart, 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.

Often when SVT occurs, the electrical signal passes through an abnormal pathway allowing the electricity to continue to loop back to the atria. An example of a type of SVT is shown in Figure 1. 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 below as the abnormal congenital bypass tract. Each loop causes a heartbeat and makes your heart beat faster than normal.

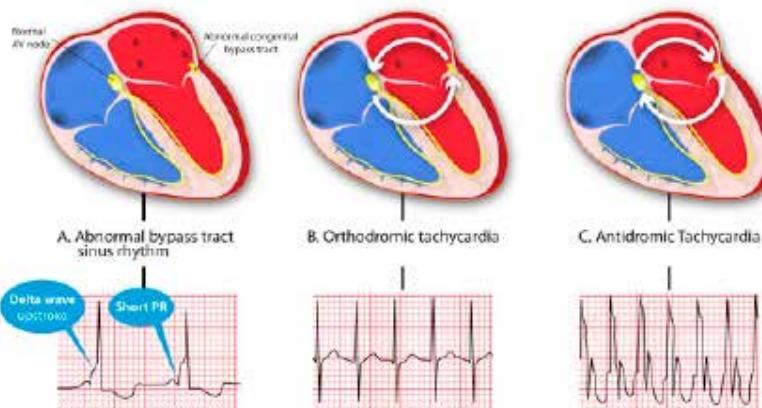


Figure 1

SVT is generally well-tolerated, though there are times, such as with Wolff-Parkinson-White syndrome, where patients may be at a higher risk for a concerning cardiac event than most patients with SVT. Please discuss your particular case with your doctor.

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?

SVT is a common diagnosis in the pediatric and young adult population. Somewhere around 1 in 1,000 children will have SVT. If SVT is diagnosed before age 1, there is around a 50 percent chance it will resolve on its own. If it is diagnosed after age 1, it will most likely not resolve on its own. Infrequently, SVT will run in families.

How do you Treat SVT?

To treat SVT during an episode:

Vagal maneuvers can be used to help the heart slow down during an episode and may help the heart to reset and return to a normal rhythm.

Vagal maneuvers 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.

To prevent more episodes of SVT:

Medicine may be used to prevent future episodes of SVT. Some of the most common medicine to treat SVT includes beta blockers, calcium channel blockers or digoxin. These medicines lower the chance of having an episode of SVT, but do not eliminate the risk of episodes of SVT in the future.

To reduce or eliminate the risk of having SVT:

An electrophysiology (EP) study with ablation may be done to evaluate and permanently fix the cause of the SVT. An EP study with ablation is a cardiac catheterization where catheters are placed into the heart. Using these catheters, heat or cold may be used to destroy the heart tissue that causes the abnormal heart rhythm. (See the "What is an Electrophysiology Study with Ablation" pamphlet for more information.)

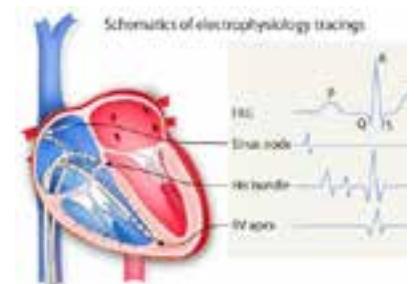


Figure 2

For questions please contact:



Nick Von Bergen, MD



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Drs. Nicholas Von Bergen and Kathleen Maginot are pediatric cardiac electrophysiologists, physicians who specialize in the treatment of abnormal heart rhythms in children and adults with congenital heart disease.

For more information



Martine Moran, RN

If you have any questions, please contact our Pediatric Interventional Cardiology Nurse, Martine Moran, RN, at (608) 263-6420, and then select Option 2.

For more details, please visit our website at uwhealthkids.org/hearts for a video tutorial.