

Supraventricular tachycardia (svt)



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Supraventricular Tachycardia (SVT) Normally, the chambers of the heart (atria and ventricles) contract in a coordinated manner. The contractions are caused by an electrical signal that begins in an area of the heart called the Sino atrial node (also called the sinus node). The signal moves through the upper heart chambers and tells the atria to contract. The sinus node is a natural pacemaker that controls the rhythm of the heart. Electrical impulses travel from the natural pacemaker through the atria then pass through a filter before running down specialized fibers that activate the ventricles. The atria are above the ventricles, thus the term supraventricular. The term tachycardia refers to a rapid heartbeat of over 100 beats per minute.

Supraventricular tachycardia then is a rapid rhythm of the heart that begins in the upper chambers. When patients experience change in the normal sequence of electrical impulses and an abnormal heart rhythm occurs, they are having an arrhythmia. SVT means that from time to time your heart beats very fast for a reason other than exercise, high fever, or stress. During an episode of SVT, the heart's electrical system doesn't work right, causing the heart to beat very fast. The heart beats at least 100 beats per minute and may reach 300 beats per minute. After treatment or on its own, the heart usually returns to a normal rate of 60 to 100 beats per minute. SVT may start and end quickly, and you may not have symptoms. SVT becomes a problem when it happens often, lasts a long time, or causes symptoms. Most episodes of SVT are caused by faulty electrical connections in the heart.

What causes the electrical problem is not clear. SVT also can be caused by certain medicines. Examples include very high levels of the heart medicine digoxin or the lung medicine theophylline. Some types of SVT may run in families. Or they may be caused by a lung problem such as COPD or

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pneumonia. The condition most occurs in young people or infants and is usually a congenital disease. The following increase your risk for SVT: alcohol use, caffeine use, illicit drug use, and smoking. Symptoms during an SVT episode include: anxiety, chest tightness, palpitations, rapid pulse and shortness of breath, throat tightness, sweating, dizziness, fainting, lightheadedness, and loss of consciousness. Symptoms may start and stop suddenly, and can last for few minutes or several hours. A SVT lasting more than half a day is considered an incessant SVT and requires immediate medical help. SVT is diagnosed by seeing a doctor (A Cardiologist) who specializes in the heart. The doctor will ask you questions about your health and symptoms, do a physical exam, and ask if anything triggers the fast heart rate, how long it lasts, if it starts and stops suddenly, and if the beats are regular or irregular. A variety of tests will be performed including: an electrocardiogram (EKG), blood tests, chest x-ray, and echocardiogram, which makes a picture of the heart. If you aren't having an episode of SVT when you see the doctor and the doctor isn't able to diagnose SVT at that time, you will need to wear a 24 hour ambulatory halter monitor which will record the heart rhythm continuously for 24 hours. To treat sudden episodes of SVT, your doctor may prescribe a medicine to take when the SVT occurs. The most commonly used classes of medications are beta blocker, calcium channel blockers and antiarrhythmic agents. These medicines decrease conduction through the AV node and slow the heart rate. You can also slow your heart rate on your own by doing vagal maneuvers. These include: coughing, gagging, putting your face in ice-cold water, and holding your breath and bearing down. If these treatments don't work, you may have to go to the emergency room. You may get a fast acting medicine such as <https://assignbuster.com/supraventricular-tachycardia-svt/>

adenosine or verapamil intravenously. If the SVT is serious, electrical cardioversion, the use of electric shock is necessary to restore a rapid heartbeat back to normal. If you often have episodes of SVT, you may need to have cardiac ablation. This procedure destroys a tiny part of the heart that causes the problem. Surgery to change the pathways in the heart that send electrical signals may be recommended in some cases for people who don't respond to other treatments. Others who have not responded to any other treatment may need a pacemaker installed to override the fast heartbeat. You can try some things at home to help prevent SVT by avoiding the things that trigger it. Avoid alcohol, caffeine, smoking, over the counter decongestants, herbal remedies, diet pills and pep pills, illegal drugs, such as cocaine, ecstasy, and methamphetamine. To find triggers, keep a diary of your heart rate and symptoms. SVT is generally not life threatening, unless other heart disorders are present. The main complication is an increased risk of heart failure. Contact a medical professional immediately if you often have a sensation of excessive palpitations and symptoms do not end on their own in a few minutes. You have a history of SVT and an episode does not go away with the vagal maneuver, or if other symptoms go along with the rapid heart rate.