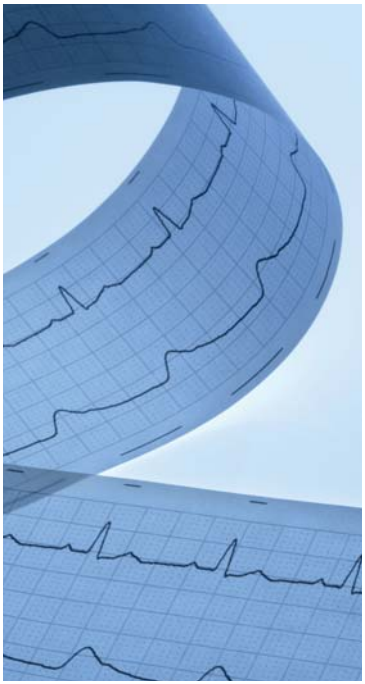
Arrhythmia Alliance
www.heartrhythmalliance.org

Supraventricular Tachycardia (SVT) patient information


Working together to improve the diagnosis, treatment and quality of life for all those affected by arrhythmias

www.heartrhythmalliance.org
Registered Charity No. 1107496

Glossary

Electrocardiogram (ECG) An ECG is a simple, non-invasive test that records the electrical activity of the heart

Syncope A temporary loss of consciousness (faint) due to a fall in blood pressure

Tachycardia An abnormally fast heart rate

Important Information

This booklet is intended for use by people who wish to understand more about supraventricular tachycardia (SVT). The information within this booklet comes from research and previous patients' experiences.

Contents

What is Supraventricular Tachycardia (SVT)?

Supraventricular tachycardia (SVT) is a rapid abnormal heart rhythm that begins in the upper chambers of the heart. The atria are above the ventricles, hence the term supraventricular. The term tachycardia refers to a rapid heartbeat of over 100 beats per minute.

Typically, patients have varying degrees of symptoms, but occasionally they may have no symptoms. Palpitations are a common symptom during SVT or a sensation that the heart is beating rapidly, fluttering, or racing. This may last for a few seconds or several hours. Occasionally, you may feel short of breath or feel a pressure or pain in your chest. Sometimes patients will feel lightheaded or dizzy, and may lose consciousness (also known as syncope) but this is a rare occurrence. Although such symptoms may raise concern, in general, the majority of SVTs are not life threatening. Nonetheless, if any of these symptoms develop, immediate medical attention should be sought.

Symptoms you may experience during SVT

- Palpitations
- Chest pain
- Lightheadedness
- Shortness of breath
- Dizziness
- Loss of consciousness (rare)

How is SVT diagnosed?

An electrocardiogram (ECG) provides a tracing of the heart rhythm and is recorded by placing stickers and leads on the chest and limbs. If the patient is experiencing SVT during the ECG, a clear diagnosis can be made. A 24-hour ECG (heart monitor) may be used to record the heart rhythm continuously.

This type of monitor is particularly helpful in documenting asymptomatic or very frequent heart rhythm abnormalities. For those patients whose abnormal heart rhythm occurs less frequently, an event recorder (cardio memo) can be used. The patient can keep the cardio memo for a longer period of time (e.g. one to two weeks) and activate the recorder when their symptoms occur for a doctor to analyse later.

What causes SVT?

SVT results from a problem within the electrical system of the heart, causing a very fast heartbeat.

It may be caused by an extra electrical connection present from birth (Wolff - Parkinson-White syndrome), or it may develop in an otherwise normal heart. It can be triggered by extra (ectopic) heart beats, alcohol, caffeine,stress,or cigarette smoking.

What treatment options are available for SVT?

Once SVT is diagnosed your doctor or nurse specialist will discuss your treatment options. If your symptoms are very infrequent, you may decide to have no treatment for your SVT, and your doctor and nurse specialist will advise you if this is an appropriate course of action.

Medications may be used to treat patients with SVT. Your doctor will discuss with you the most commonly used medications, the benefits and side effects.

A procedure called an electrophysiology study allows the doctor to detect any abnormalities in the electrical system within your heart that have been causing your symptoms. Once the abnormality is found the doctor may then perform a catheter ablation as an alternative to medications for some patients with SVT. This aims to cure the abnormal heart rhythm by destroying the area of extra cells which is causing the palpitations.

See Arrhythmia Alliance booklet: Catheter Ablation for SVT. Your doctor and nurse specialist will give you information on the risks and benefits of this procedure and let you know if it is an appropriate treatment for you.

What can I do when I develop SVT?

Fast heart rhythms that come on suddenly can often be stopped by performing some simple tricks called physiological manoeuvres. These are easy and safe to perform in any setting and may stop the fast rhythm and return the heart to normal. This helps avoid having to go to a hospital or call an ambulance. Below you will find descriptions of these physiological manoeuvres to stop SVTs.

If you feel unwell when SVT begins, for example you have (bad) chest pain, feel very faint or find breathing difficult, call for an ambulance without delay by dialling 999.

It may be useful to keep a record of how frequent your SVT occurs. If you find that your symptoms worsen or the method you use to stop them no longer works, do not worry. Talk to your GP who should be able to recommend a heart rhythm specialist that you can be referred to, to discuss further treatment options.

Physiological manoeuvres

These are 'tricks' which alter nerve reflexes in the body for a few seconds. Many types of heart rhythm disorders are triggered by changes in these nerve reflexes and can also be stopped by them. They are listed in order of how often they are effective and how easy they are to perform.

Valsalva manoeuvres

This is a way of briefly increasing the pressure inside the chest. Lie or sit down, take a breath in and then 'strain' – as if you were constipated and trying to open your bowels.

If you are not familiar with this, some people achieve the same effect by taking a breath in and then placing the tip of their thumb in their mouth and blowing hard against their thumb trying to let as little air escape as possible. Whichever method you use, try to do this through a mental count of about twenty seconds and then breathe out normally.

It is important that you do this lying or sitting down. If you attempt whilst standing up, it may make you feel very faint. Most commonly, if this works, it does so just after breathing out. If it doesn't work the first-time round, then try again for a longer period if you can.

Carotid sinus massage

This is actually more effective if done to you by someone else. It should not be done on anyone who is known to have disease in their arteries or in older people, especially if they have ever had a stroke. NEVER MASSAGE BOTH CAROTID ARTERIES AT THE SAME TIME, as you may cause yourself to blackout!

At the side of the neck there is a pulse of the carotid artery. To find this, put your fingers on one side of the neck at the angle at the back of the jaw and then move the fingers slightly backwards and down to the side of the neck.

If you keep your fingers still in this position for a few seconds, you should feel the pulse. Gently, but firmly massage this pulse using a circular motion with the fingers for about fifteen seconds. It is usually done on the right side of the neck. Remove fingers and re-assess.

If palpitations still continue, try again.

Diving reflex

This is a reflex which causes a slight decrease in our heart rates when we dive into water. It is sometimes enough to stop a fast rhythm. Fill a sink or bowl with cold water and then immerse your face fully into the water for a second or two.

Gagging/retching/vomiting

One of the most powerful ways of provoking a reflex change is to induce vomiting. This, however, may not be necessary. Just tickling the back of the throat enough to make you 'gag' may be enough to stop the fast rhythm. Use something blunt and smooth like the handle end of a toothbrush to touch the back of your throat behind the tongue. Of course, this should be done very gently, and no pressure exerted in this sensitive area.

Another technique that works occasionally for some people but may be less powerful than the methods listed previously, is to take a good 'glug' of very cold water. However, don't drink too much because if the rhythm does not stop and you have to go to hospital, it is best not to have a stomach full of water when you arrive.

These are the most common methods used, but individual people often find other methods that work well for them. Sometimes, a cough or just taking a deep breath as soon as the sensation of the fast rhythm starts is enough.

If you do use one of these techniques and it works with your heart going back into normal rhythm, remember to tell your doctor about it as it helps to indicate the type of fast rhythm that was causing the problem. Generally, these techniques work well for many fast REGULAR heart rhythms, but are usually ineffective for fast IRREGULAR heart rhythms, such as atrial fibrillation.

Arrhythmia Alliance
www.heartrhythmalliance.org

Working together to improve the diagnosis, treatment and quality of life for all those affected by arrhythmias

Arrhythmia Alliance

+44 (0)1789 867 501

info@heartrhythmalliance.org
www.heartrhythmalliance.org

Registered Charity No. 1107496

Published March 2021
Reviewed August 2022

endorsed by Department of Health

FINGER ON YOUR PULSE

Finger on your Pulse: is our new library of educational video resources. Medical Experts share their knowledge and address specific concerns and patients share their experience living with the various conditions and treatments.

www.fingeronyourpulse.org

"Thank you for the helpful tips of managing SVT Symptoms"
Suzi, Somerset

Please remember that this publication provides general information. You should always discuss and seek advice from your healthcare professional what is most appropriate for you.

Acknowledgments: Arrhythmia Alliance would like to thank all those who helped in the development and review of this publication. Particular thanks are given to Dr Kim Rajappan, Dr Derick Todd, and Dr Charlotte D'Souza.

Founder and Trustee:
Trudie Lobban MBE, FRCP (Edin)

If you would like further information or would like to provide feedback please contact Arrhythmia Alliance.