

what you

NEED TO KNOW

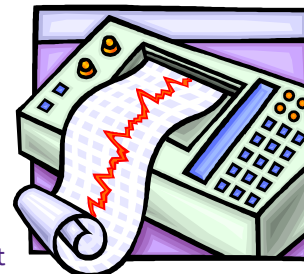
about...

SVT: Tests and Treatments for Supra-ventricular Tachycardia

To be sure your child has SVT, we need to record your child's heart rhythm when the heart is beating very fast. It can sometimes be hard to record a period of SVT while it is happening.

Tests for SVT

- ❑ **ECG/EKG (Electro-cardio-gram):** This is a painless, 10 second recording of the heart's electrical signals. We'll place stickers on your child's chest, and connect them to a machine to make the recording.
- ❑ **Holter Monitor:** This portable recorder uses stickers and wires to collect information about your child's heart rhythm for 24 hours. Your child should go about regular activities while wearing the Holter monitor.
- ❑ **Telephone Transmitter:** If we can't catch your child's heart rhythm problem with an ECG or Holter monitor, we'll lend you this device for a month. When your child has a period of fast heart beat, you can press the machine to your child's chest. You can record the heart rhythm by pressing a button. The machine will automatically save the recording. You can then send the recording to CHEO by telephone (cell phones don't work well for this).
- ❑ **Implantable Recorder:** We don't use this often. It is implanted under the skin to record the heart rhythm for up to 3 years. It will record your child's heart rate continuously. We can set it to start saving recording when your child's heart rate goes above a certain limit. You can also store a recording if your child has symptoms. We can download the saved information in the Cardiology Clinic.



Treatments for SVT

Pulse Diary

Many children and teens with SVT don't need treatment, because the SVT doesn't happen often and doesn't last long. For these children and youth, parents can keep a pulse diary to record:

- The date, time and how long the SVT lasted
- The 1 minute heart rate during the SVT
- Whether the heart beat was regular or not
- What your child was doing at the time (running or watching TV?)
- How your child looked and felt during the SVT

Bring your pulse diary to cardiology clinic visits. Call the Cardiology Nurse about new episodes of SVT if your nurse asks you to.



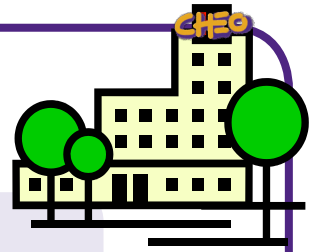
Vagal Manoeuvres

We will teach you how to do these with your older child to stop SVT episodes. You can try them as soon as the SVT starts for up to 20 minutes. These activities increase pressure in the chest. The increased pressure stimulates the vagal nerve, that often helps the heart to slow down. You can teach older children or teens to:

- Hold their breath while bearing down
- Blowing into their thumb
- Blowing into a straw, with your hand blocking the end of the straw
- Lying down on the floor and raising both legs at the same time (keep legs straight)
- Blowing up a stiff balloon

Bring your child or teen to hospital if the SVT lasts longer than 20 minutes.

Treatments in the Emergency Department



Vagal Manoeuvres for babies and young children

The doctor in the Emergency Department may place a bag of ice over your baby's face. This causes a nerve reflex to slow the heart beat.

Medication

Emergency department staff may start an IV to give medications into the blood stream. Adenosine is a medication often used in older children, and is very effective at stopping SVT. Verapamil may also be used. Other drugs can be used if these don't work.

Cardioversion

If vagal manoeuvres and medications don't stop the SVT, the doctor may perform a cardioversion if your child is very ill. This is very effective in bringing back a normal heart beat.

For a cardioversion, your child will:

- Have sleep medication given by an anesthesiologist (sleep doctor)
- Have an electrical shock to the heart by small pads or paddles on her chest.

Long term treatment

1 Medication



Your doctor may prescribe medication if the episodes of SVT:

- Happen too often
- Make it hard for your child to take part in everyday activities.

When medication is needed, there are many options doctors can choose from.

3 Catheter Ablation

This treatment can happen right after the EP study, if doctors are able to pinpoint the area of abnormal heart tissue that is causing the SVT. For a catheter ablation, doctors will:

- Usually give children a general anesthetic. Occasionally, older teens will have medications that will make them drowsy and relaxed.
- Place a special tube (catheter) in a blood vessel in the groin
- Gently push this tube into the heart.
- Use radio waves or freezing to destroy the abnormal heart tissue.

2 Electro-physiology (EP) studies

These tests help us learn more about the:

- Heart's conduction system
- Source of the heart rhythm problem

Children may need these tests if medications are not able to control the SVT, or if doctors are unsure about the type of SVT. EP studies take several hours. For an EP study, the doctors will:

- Usually give children a general anesthetic so they will be asleep for the test. Occasionally, older teens will have medication so they will be drowsy and relaxed for the test.
- Place special tubes (catheters) in a blood vessel in the groin
- Gently push these tubes into the heart, where they will measure electrical signals in different areas in the heart.

Questions?

Cardiology Nurse

613-737-7600 extension 3109

Monday-Friday between 8:00 am and 4:00 pm.

We will return your call the same day from Monday-Friday. We will call you back on the next clinic day if you call on the weekend.

