Supraventricular Tachycardia (SVT)

Supraventricular Tachycardia (SVT) is a term used to describe a fast or racing heart rate. SVT occurs because of an accessory or extra pathway in the heart that allows electrical conduction to go very fast from the top chamber to the bottom chamber of the heart. Children diagnosed with SVT are primarily treated with medicines to control their heart rate, and are followed by a pediatric cardiologist. Of those babies diagnosed with SVT, about 50% will resolve within the first year. Others usually resolve by the age of 3 years. If SVT persists past the age of 3 years, it is thought to be a lifelong problem. For children who have persistent problems with SVT, a potential cure is available. This is a procedure called cardiac ablation. Your child’s cardiologist will discuss this option with you if it is appropriate.

SVT episodes can happen at any time, with any activity. Episodes often happen in clusters, or "storms", where several episodes happen in a short period of time. Then they may not happen again, for a long time. SVT is very unpredictable, but can commonly occur during times of stress, illness, anxiety, and exercise.

WHAT TO DO:

Listen to the heart:

You will be taught how to use a stethoscope. Listen to your baby’s heart rate after each feeding. If you can not hear the heartbeat, place your hand on his chest to feel the heartbeat. In older children, check the heart rate once or twice per day. Try to become familiar with the heart rhythm and what your child’s heart sounds like when it is not going fast. This will help you tell when it is going too fast. Once your child is old enough that he can tell when his heart is racing, you do not need to check the heart rate daily.

Vagal maneuvers:

When your child is having an episode of SVT, there are certain things you can do at home to try to stop the SVT.

For a baby, SVT can be stopped by:

- Applying a bag of ice or ice cold water to the face (Be sure not to cover your baby’s nose or mouth.)
- Taking a rectal temperature

For an older child:

- Have him hold his breath and bear down (like he is having a bowel movement).
- Put his thumb to his lips and try to blow it out, keeping his lips closed.
- He can also stand on his head and flip up suddenly – this can be done by younger children with a parent’s assistance. Do not do this to a baby. This can be done to a toddler (over age 2), as long as his head is supported, so he does not receive a head or neck injury.
Medications:
Make sure you give your child his medication on a schedule that you can keep the same every day. If your child misses a dose, he will be more likely to have an SVT episode. Do not double a dose or give 2 doses close together. Keep to the schedule. Make sure you keep medications out of the reach of children.

Medications to avoid:
In general, avoid medications, herbal supplements, or nutritional products that speed up the heart. Most cold medicines contain ingredients that speed up the heart. The ingredients to avoid are: ephedrine, pseudoephedrine, and phenylephrine. If your child is so congested that he can not sleep, Benadryl® (diphenhydramine) is an antihistamine that does not affect the heart rate.

Follow the package insert for the correct dose to give your child based on his age and weight. Diphenhydramine does make a person sleepy, in addition to opening the nasal passages. Always check with your child’s doctor before giving him any medicine.

Activity:
In general, your child should be able to participate in normal play and other activities. If the SVT is preventing this from happening, talk to your child’s doctor. Your child may need a medication change to control or eliminate the episodes.

If you have questions, please call the electrophysiology nurses at (816) 234-3255, or toll free at (866) 512-2168 (extension 3255).

(An electrophysiology nurse is a nurse that specializes in heart rhythm problems.)