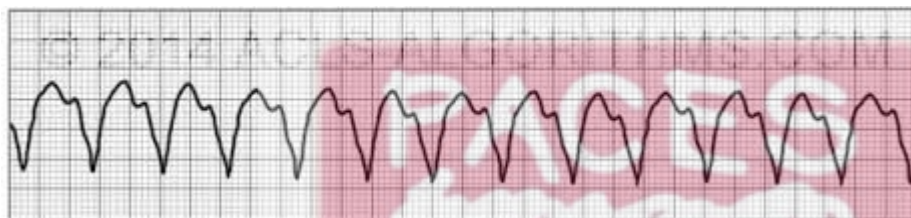


## Patient Resources: Ventricular Tachycardia in Children

### Overview

Ventricular tachycardia is an arrhythmia which causes the bottom chambers of the heart (ventricles) to beat too fast. The heart can't fill completely with blood between each beat, which in turn can cause fainting or cardiac arrest. Ventricular tachycardia may occur in children with normal hearts and those with heart disease.



### Symptoms

Many, but not all patients, experience symptoms with ventricular tachycardia. Common symptoms for ventricular tachycardia include fainting, lightheadedness, dizziness, shortness of breath, chest pain, and/or palpitations (heart racing, skipping, or fluttering feelings). Younger children may have a hard time verbalizing their symptoms but sometimes use words such as “heart beeping” to describe a funny feeling.

### Diagnosis

When there is a suspicion that a child may be having ventricular tachycardia your Cardiology/Electrophysiology team may order testing. Some of the tests that may be ordered are (see [Basic EP fact sheet](#) for more details):

- *ECG*: an electrocardiogram is a quick, easy test in which stickers or electrodes are placed over the child's chest and body. The test shows the heart's electrical activity and rhythm as tracings on paper.
- *Holter Monitor*: a device that records the rhythm of the heart for 1-3 days. The child wears the monitor with 3-4 electrodes that connect to the monitor which is about the size of a deck of cards. This test is good for patients who have symptoms daily.
- *Event monitor*: similar to a Holter monitor with two big differences. An event monitor is typically worn for 30 days instead of 1-3 days like the Holter. Additionally, the event monitor may only record when the child has a symptom and pushes a button on the monitor to tell it to record.
- *Exercise Stress test*: a test in which the patient is exercised on a stationary bicycle or treadmill according to a protocol. During the test, an ECG is continually monitored and blood pressures are frequently checked.

- (or echo): an ultrasound of your child's heart to assess how well the heart is beating and to look for abnormalities of the heart.

## Treatment

Treatment options may include lifestyle changes, medications, ablation, device implantation, cardiac surgery. Your cardiologist will discuss the treatment options with you.

- Modifying your child's lifestyle or diet
  - Decrease the amount of stress
  - Limit/minimize caffeine
  - Limiting exercise
- Medications may include beta blockers, calcium channel blockers and others. Your child's cardiologist/electrophysiologist will determine the type of medication needed by the type of tachycardia you have, other medications your child is taking and other illnesses your child may have.
- Cardioversion is a controlled electrical shock delivered to the heart in order to restore your child's normal rhythm. This is done under sedation.
- Ablation (see basic electrophysiology fact sheet)
  - Procedure done in the Cardiac Cath or Cardiac Electrophysiology Lab.
- Implantable Cardioverter Defibrillator (ICD) (see ICD/Pacemaker overview)
- Arrhythmia Surgery
  - May be used when all other treatments have been unsuccessful or used in combination with cardiac surgery for children with congenital heart disease.

## Restrictions

Activity restrictions will be based upon the cause and the treatment of the ventricular tachycardia. Your healthcare team will help guide you in the decision-making process. Even if there are some restrictions, it will be important to discuss the activities that are safe and appropriate for the patient, and to focus on what CAN be done!