

## HOLTER MONITORING

AT CHILDREN'S HOSPITAL OF PITTSBURGH OF UPMC, we believe parents and guardians can contribute to the success of this test, and we invite you to participate. Please read the following information to learn about the test and how you can help.

### Fast Facts About Holter Monitoring

- A Holter monitor is a small recorder that makes a nonstop electrocardiogram (*e-LECK-tro-KAR-dee-o-gram*) or EKG of the heart over a full 24-hour period. The EKG measures the electrical beats of the heart.
- The test does not hurt and all testing takes place on the outside of the body.
- Your child will wear the Holter monitor during the activities he or she normally does during 1 full day, including going to school, playing at home, taking naps and sleeping through the night.
- You will be asked to keep a diary of your child's symptoms, changes of activity or other unusual events during the Holter monitoring period.
- When the 24-hour test is done, you must return the Holter monitor the next day.

### What Is Holter Monitoring?

A Holter monitor is a small machine that makes a continuous recording of your child's electrocardiogram (EKG) for 24 hours.

- Because it follows a full day of your child's heartbeat, this test can be helpful in detecting abnormal heartbeats that happen only occasionally.
- This EKG information, and the diary you will keep, will help the doctor find links between your child's activities (playing, standing up, being upset) and heart symptoms (dizziness, fast or irregular heart beats, or black outs).
- Holter monitoring can be used to spot arrhythmias (*a-RITH-mee-yas*), or irregular heart rhythms, or ischemia (*is-KEEM-ee-ya*), a lack of oxygen-rich blood flowing to the heart because of a clog in an artery.

### Home Preparation

- Your child may eat and drink as usual.
- You should not use any cream, lotion, powder or baby oil on your child's chest on the day you come to get the Holter monitor, or during the 24-hours of the test.
- Your child cannot take a bath or shower or go swimming during the time he or she is wearing the Holter monitor.
- While wearing the Holter monitor your child may do all the things he or she normally does in a day—except activities that might get the monitor wet.



### The Test

You and your child will come to the hospital to have the Holter monitor put on.

- Your child should wear loose-fitting clothes—a shirt that buttons in the front makes it easier.
- A cardiology assistant will place small plastic stickers called electrodes (*e-LECK-trodes*) on your child's chest and connect them with wires to the Holter monitor. These electrodes do not hurt and must stay on your child's chest throughout the entire 24-hour test.
- The Holter monitor can be attached to a belt or placed in a small pouch with a woven strap that allows your child to wear it like an iPod.
- You will be given a special diary to keep track of your child's activities, moods and other factors at different times during the day he or she is wearing the Holter monitor. The assistant will show you how to fill out the diary.
- An older child may receive a Holter monitor with an "event" button that he or she should press to mark the time of a heart-related symptom. The event button allows an EKG to be printed from the exact time the symptom happened.
- Depending on the age and maturity of your child, he or she also may be able to help a parent keep the diary of activities and symptoms.



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- When the 24 hours are over, you may disconnect the Holter monitor and take the stickers off your child's chest. The assistant will show how to do that before you leave the hospital.
- The next day, you must return the Holter monitor, wires and completed diary to Children's Hospital in Oakland or one of the satellite centers in Wexford or Bethel Park. There is no charge for parking when you return the monitor.
- If you live outside the Pittsburgh area, you will be given a special box in which to mail the monitor back to Children's.

### A Parent's/Guardian's Role During the Test

The most important thing parents can do is to help make sure the test gathers all the information needed. You can do that by:

- Making sure the Holter monitor electrodes stay connected.
- Helping your child keep the monitor and electrodes dry and clean.
- Taking good notes in the diary on your child's activities, moods and other factors, as instructed by the cardiology assistant.
- Returning the Holter monitor to the hospital quickly so the information inside it can be processed quickly.

### After the Test

When you return the Holter monitor, you do not need to bring your child with you or wait for the results to be read.

- The Holter monitor will be connected to a computer, which will print out many EKG strips of your child's heartbeat at different times during the 24-hour test period.
- A doctor will look at the EKG strips and compare them with the information you wrote in your child's diary. A doctor will look at the results of the test even if you do not meet with a doctor on the day you return the Holter monitor.
- The doctor who ordered the test for your child will receive a report on the results of the test within 2 to 3 weeks.
- If the doctor who reads the results were to see a life-threatening or potentially dangerous condition, your child's doctor would be called immediately.
- You should follow up with the doctor who ordered the test if you have any further questions.

## Special Needs

If your child has any special needs or health issues you feel the doctor needs to know about, please call the Heart Institute at Children's Hospital of Pittsburgh **before the test** and ask to speak with a nurse. It is important to notify us in advance about any special needs your child might have.

Heart Institute  
**Children's Hospital of Pittsburgh of UPMC**  
One Children's Hospital Drive  
4401 Penn Ave.  
Pittsburgh, PA 15224  
412-692-5540

**Children's North**  
2599 Wexford-Bayne Road  
Sewickley, PA 15143

**Children's South**  
205 Millers Run Road  
Bridgeville, PA 15017

**Children's East**  
Corporate One Office Park  
Building One  
4055 Monroeville Boulevard  
Monroeville, PA 15146

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To see the list of all available patient procedures descriptions, please visit [www.chp.edu/procedures](http://www.chp.edu/procedures).

