

EXERCISE (STRESS) TEST

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 the Exercise (Stress) Test

- The exercise test, sometimes called a stress test, shows how well your child's heart works and adjusts to different levels of activity.
- It is done at Children's Hospital in a room with a special electrocardiogram (*e-LECK-tro-CARD-ee-o-gram*) or EKG machine, and a treadmill.
- Your child's EKG and blood pressure will be taken while he or she exercises on a treadmill.



What is an Exercise Test?

An exercise test is the best way for doctors to get an idea of how well your child's heart works at—and adjusts to—different levels of activity. The test is done on children who are able to walk and run on a treadmill and are mature enough to understand what is being asked of them, usually ages 5 and up.

- The test will record changes in your child's heart rhythm, heart rate, blood pressure, heart function and other symptoms while your child exercises—first, at a slow rate, then faster and faster until his or her highest level is reached.
- The doctor will carefully monitor your child during the entire test to make sure there are no problems as the exercise level increases.
- Although exercise isn't harmful, this test checks your child's heart as it works at its highest level, so some shortness of breath and muscle fatigue—similar to a really hard workout—is to be expected.
- The exercise part of the test takes about 15 minutes to complete, but the entire test takes about 45 minutes.
- In most cases, parents may stay in the room during the test.

Home Preparation

Exercise tests are usually done in the morning when your child is well rested and energetic.

- Your child should eat a light breakfast at least 2 hours before coming to the hospital, and may have clear liquids in the 2 hours before the test.
- He or she should wear comfortable clothes, such as a T-shirt and shorts or sweat pants, and running shoes or sneakers.
- Older children and teens may want to bring an extra shirt to wear home after the test.

The Test

A doctor will do the exercise test in a room that is a combination of a doctor's office and workout area.

- Ten plastic stickers called electrodes (*e-LECK-trodes*) are placed at certain spots on your child's chest. Wires connect the electrodes to the EKG machine and are held in place by a mesh shirt so they don't fall off.
- A blood pressure cuff will be put on your child's arm and attached with Velcro. A resting EKG and blood pressure will be taken first.
- When a blood pressure reading is taken at several points during the test, the cuff inflates with air and may feel tight on your child's arm. The cuff will deflate after several seconds and the tightness will go away.
- The doctor then will ask your child to begin walking on the treadmill.
- As the test goes along, the doctor will ask your child to walk faster and faster to keep up with the treadmill speed and steepness of the incline.
- Your child will be asked to exercise as long as possible, and will be taken to his or her highest exertion or effort level. This point is often referred to as exercising "to exhaustion."
- Once your child has reached exhaustion, or if abnormal changes are noted on the EKG or blood pressure, the test will be stopped.
- Your child will lie down, and more measurements will be taken as the heart rate slows down to normal.

EXERCISE (STRESS) TEST cont'd

In some cases, your doctor might need extra information about how much air your child is breathing during exercise. This extra test is called a pulmonary (POOL-mon-air-ee) or lung function test.



- If this test is needed, your child will wear a special mouthpiece with a hose attached, and a nose clip, similar to those worn while swimming, during the exercise test.
- Parents will be shown to the waiting room just before the exercise with lung function test begins.

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

The most important thing parents can do is to keep their child relaxed before the test.

- Parents should encourage their child to work out to their maximum level and provide reassurance that exercise is not harmful or painful.
- We welcome your questions—but please ask them *before* or *after* the test.

After the Test

- The doctor or assistant will continue to monitor your child for several minutes after the test.
- Your child may feel tired—he or she has had a good workout!
- Your child may have a drink and a snack after the test.
- The doctor may want to talk to you after the test, or may need more time to review the information from the test.
- The results of the exercise test will be sent to the doctor who ordered the test within 1 week.
- You should follow up with the doctor who ordered the test if you have 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.

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To see the list of all available patient procedures descriptions, please visit www.chp.edu/procedures.