

Fact Sheet: Exercising Testing – What to Expect



The Division of Pediatric Cardiology at Weill Cornell Medicine offers comprehensive cardiopulmonary exercise testing (CPET), also called stress testing, to our patients. The purpose of this test is to evaluate the child's heart during exercise.

What can we learn from an exercise test?

The exercise test is used to assess for the possible development of strain upon the heart, the development of a problem with the cardiac rhythm, or a problem with the exchange oxygen and carbon dioxide in the lungs. There are many reasons why a pediatric cardiologist may want this test for your child, including:

- Chest pain experienced during exercise
- Fainting in association with exercise
- Check endurance in a child born with heart disease
- Provide guidance as to whether exercise is safe
- Evaluation of rhythm disorders
- Shortness of breath with exercise

What happens during an exercise test?

At the beginning of the test (prior to exercising), your child may be asked to breathe through a specific device to assess your child's lung function. The same test may be repeated at the end of the test after your child stops exercising. This is used to assess for certain conditions, such as exercise induced asthma.

The exercise test itself may be performed either on a treadmill or a bicycle and may be performed on children as young as five years of age. Your child will be attached to an electrocardiogram (EKG) machine throughout the testing. In addition, your child may be breathing through a specific mouth-piece to measure the oxygen and carbon dioxide content in the exhaled air, which provides additional useful information regarding the ability of the child to exercise safely.

When performed on a treadmill, the child holds on to a bar to provide stability. The speed and incline of the treadmill increase every three minutes. When done on a bicycle, the resistance to pedaling is increased (and thus the “workload” gradually increases).

Your child’s EKG recording is monitored continuously, with blood pressure and oxygen levels checked at regular intervals. Using a combination of oxygen consumption, maximum heart rate and blood pressure, as well as the overall workload and endurance, your child's response to exercise is analyzed.

How long is the test?

The test ends when the maximum heart rate is obtained and the patient is too tired to continue, or if any findings of concern are detected during exercise. It is important for your child to exercise as much as possible during the test for the medical team to obtain all the needed information. Depending on the age and the medical condition of the child, this is usually after 10-20 minutes of exercise.

Who will be in the room during the test?

A pediatric cardiologist and specially trained pediatric cardiac nurse are in the room at all times. The doctor and nurse will encourage your child throughout the test.

What happens after the exercise test?

After the exercise portion is completed, your child will be asked to rest during a 10 minute “recovery period.” During this rest period, your child's EKG recording continues to run and his/her blood pressure will continue to be monitored. Your child will be given water and time to rest.

When will we get the test results?

Preliminary results are then given to the family. Any tests relating to the lung function will be further interpreted by a pulmonary specialist. The results are then shared with the referring cardiologist, who will provide the patient and the family with further guidance.