香港浸信會醫院
Hong Kong Baptist Hospital

Exercise Treadmill Test for Children

Procedure Information Sheet

Introduction

During exercise, there are changes in heart rate, heart rhythm, blood pressure and respiration. Exercise may also elicit cardiovascular abnormalities not present at rest. Therefore, exercise can be used as a test to assess the function of the cardiovascular system, and to evaluate symptoms of heart and lung diseases.

Indication

- Assessment of chest pain, palpitations, dizziness induced by exercise.
- Assessment of exercise capacity, cardiopulmonary function.
- Evaluation of effectiveness of medical treatment for heart and lung diseases.

The Operation / Procedure

The test is performed with the child walks or runs on a treadmill, while his/her heart rate and blood pressure are monitored.

During the test, the speed and slope of the treadmill are increased in steps to maximize the child's effort. The test will be terminated if the following observation is noted:

1. Development of chest pain, dizziness, excessively high or low blood pressure, difficulty in breathing, leg fatigue.
2. Abnormal electrocardiographic findings suggesting inadequate blood flow to heart muscle, and dangerous heart rhythm disturbance.
3. Maximal effort has been obtained.

Before the Operation / Procedure

1. The child should wear sport shoes and loose, comfortable clothes.
2. A light breakfast or lunch is allowed but should be eaten at least two hours before the test.
3. Before the test, the doctor will explain the purpose and the risks of the test to the child and parents. Parents have to sign an informed consent.
4. The child will be connected to devices for electrocardiographic monitoring and blood pressure measurement during the test.

After the Operation / Procedure

1. The child should rest for 20-30 minutes, and may leave if there is no discomfort.
2. Preliminary results of the test will be explained to the parents before discharge.

Risk and Complications

1. Heart attack
2. Dangerous abnormal heart rhythm
3. Fainting, or syncope
4. Sudden death

The test is supervised by a doctor and monitored by devices. The risk of death related to exercise test is very low, in the range of 1 in 2,500 to 10,000.

Disclaimer

This leaflet only provides general information pertaining to this operation / procedure. While common risks and complications are described, the list is not exhaustive, and the degree of risk could also vary between patients. Please contact your doctor for detailed information and specific enquiry.

Reference

Smart Patient Website by Hospital Authority, Procedure Information Sheet: Exercise Treadmill Test for Children (2007)

Patient's Label
Patient Name: _____
Hospital No:_____
Adm No/Episode No:_____

Patient's Signature:_____ Date:_____