What should I do?

1. Avoid caffeinated food and drinks, such as Coke, coffee, tea and chocolate, for at least 12 hours before the test as caffeine may reduce the effectiveness of the vasodilator agent.

2. Do not take beta-blockers, nitrates, diltiazem and verapamil 48 hours prior to the test, unless instructed by your doctor. Do, however, bring the medication with you to the laboratory so that you may take it after the test. If you are unsure, please call our Enquiry Hotline at (65)6772 5383.

3. This test should not be performed if you have fever, viral and other accompanying acute illnesses. Please check with your doctor.

4. Avoid smoking for at least 6 hours before this test.

5. Fasting is not required but do avoid taking a heavy meal before the test.

What are the potential risks/complications with this test?

Exercise testing is generally very safe. Most complications are minor. These include injuries sustained from falling from the treadmill machine. Very rarely, a heart rhythm abnormality or heart attack may occur during exercise.

The radioactive chemical given is very safe and has no known immediate side effects. The amount of radioactivity given during the test is very low and has not been shown to cause cancer. However, you should inform the doctor if you are pregnant.

When will I know the results?

The doctor supervising the test can usually tell you the preliminary results of the exercise test. Your doctor will inform you of the final report at your next clinic appointment. If there is any severe abnormality that requires prompt medical attention, your doctor will contact you.

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Exercise Stress Myocardial Perfusion Imaging Test

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What is exercise stress myocardial perfusion imaging test?

Blood vessels supplying the heart with blood can be abnormally narrowed by a process called atherosclerosis. When this happens, the blood flow to the heart may be insufficient during physical exertion. Exercise stress myocardial perfusion test assesses the blood flow (perfusion) to the heart muscles during exercise.

What can I expect?

This test consists of 2 phases - the stress phase and the rest phase, both are usually done on the same day.

Before the test, your height and weight will be taken and a small plastic cannula is inserted in one of the veins on your hand for injection of the radioactive chemical. You are advised to come in sports attire, such as running shoes, shorts or pants and t-shirt to facilitate the treadmill exercise.

Once your blood pressure and a baseline ECG is recorded, you will proceed with the exercise on a treadmill machine. Most commonly, the speed and incline of the machine will increase every 3 minutes. Throughout the test, your ECG and blood pressure will be monitored.

During treadmill exercise, the level of exercise gradually increases until the patient’s heart rate reaches a certain target. At this time, a very small amount of radioactive chemical (sestamibi) is injected into the patient. This is taken up by the heart and gives your doctor information about the blood flow.

What is the purpose of the test?

This test assesses the blood flow (perfusion) to the heart. It also gives the doctor an indication of how strongly the heart is beating (ejection fraction). These are the two most important pieces of information a doctor needs when evaluating a patient with heart disease. The test is more accurate and gives more information than treadmill stress test alone.