



# Victorian Heart Centre

## EXERCISE STRESS TESTING

A guide for patients

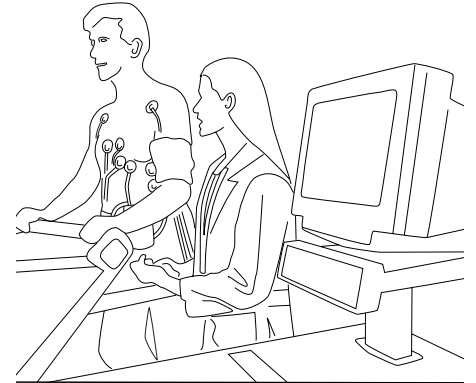


**E**xercise stress testing is used to diagnose coronary artery disease, rhythm problems or other heart conditions. It also may be used to test the effectiveness of a treatment prescribed by your doctor.

Some heart abnormalities are unmasked only when the heart has more work to do. For example, this may occur when the arteries that supply blood to the heart muscle are partially blocked by fatty deposits called plaque. When the person is at rest, the heart muscle may be

getting all the blood it needs. However, when the heart has to work harder and the pulse rate is higher (as during exercise), partially blocked coronary arteries can prevent extra blood from reaching the heart muscle. This causes recurrent chest pain called angina, which often shows up during exercise stress testing.

Exercise stress testing can also indicate changes in heart rhythm, blood pressure, and other functions of the heart.



Your blood pressure and ECG are monitored for abnormal changes.

## The Procedure

Several electrodes are placed on your chest and shoulders to record an electrocardiograph (ECG) during rest and exercise. The ECG continuously records the electrical activity of your heart. The ECG is highly effective in recording even minor and subtle abnormalities in the heart.

A cuff is put on your arm to monitor blood pressure during the test. Exercise may be undertaken on a stationary bicycle or a treadmill. Speed and incline of the treadmill increases slightly every few minutes. It can reach the point where you feel like you are walking or riding a bike up a small hill.

Your blood pressure is checked every few minutes, and the ECG is carefully watched for abnormal changes.

The test may end if you become too tired to continue or if you have significant changes to your heart rate or blood pressure. The test may be stopped when you reach your peak heart rate or the ECG shows abnormal changes.

Once you have finished on the treadmill, you lie down on a bed. Staff continue to monitor your heart and blood pressure while you recover. The entire procedure takes about 45 minutes.

**STRESS ECHO:** Additional information on the function of your heart is gained by the use of echocardiography to compare images of the heart muscle functioning at rest and with exercise.

**OTHER FORMS OF STRESS TESTING:** If you are unable to exercise, your cardiologist

may recommend a thallium stress test or dobutamine stress echo. These tests utilise medication instead of exercise to increase the heart rate.

**DISCOMFORT:** If you experience chest pain, shortness of breath, leg fatigue, leg pain or dizziness, tell the cardiologist or technician, or make a signal if you are wearing a face mask.

## Preparation

**DIET:** On the day of the exercise test, do not drink or eat foods that contain caffeine. This includes chocolates and cola drinks. Do not drink alcohol. Eat a light meal before the test, and avoid exercise or activities that are strenuous. Do not smoke for at least one hour before the test as it can alter the results.

**CLOTHING:** Bring comfortable clothing such as tracksuit pants, shorts, T-shirt and flat shoes, such as runners. If you need glasses, bring them. Do not wear tight clothes or belts.

Soap and towels may be available for a shower after the test.

**MEDICATION:** Tell the doctor who prescribes your heart medication that you are having an exercise test. For the purpose of the test, your medication may need to be altered.

## Possible Complications

Exercise testing is remarkably safe but does pose a small risk. It has about the same level of risk as taking a brisk walk or walking up a hill. Rarely, it can lead to a heart attack or serious heart rhythm

disturbances. It is important to remember that exercise testing is carefully monitored, and staff can respond immediately to any concerns

## Test Results

Your cardiologist can tell you the results of the exercise test on the same day. A positive test result means that one or more heart conditions were detected. A negative result means the test did not detect a problem.

Your doctor will discuss further management and treatment, and possibly the need for other tests. This can include an angiogram, which is explained in the patient education leaflet called "Coronary angiography", available from your ward nurse or doctor.

### TALK TO YOUR DOCTOR OR NURSE

**T**his leaflet is intended to provide you with information and is not a substitute for professional advice. It does not contain all of the known facts about exercise stress testing. There may be other side effects that are not listed in this leaflet.

If you are not certain about the benefits, risks and limitations of an exercise test, be sure to ask your doctor or nurse.

It is important that you have enough information about benefits and risks so you can make an informed decision about diagnosis and possible treatment options.