



invasive diagnostic test to compare the blood flow to the heart muscle (myocardium) at rest and during exercise.

### SCAN PROCEDURE

There are two parts to a myocardial perfusion study, a resting scan and a stress (exercise) scan. There is a 2-3 hour interval between the two scans, during which time you can leave the clinic and take a light lunch. You will need to allow most of the day for this study.

#### The resting scan:

On arrival at the imaging department you will receive a small intravenous (IV) injection of a radiopharmaceutical tracer. You will then be asked to take a seat in the waiting area to allow time for the tracer to accumulate in the heart muscle. After about 40 minutes one of the technologists will ask you through to the scanning room and get you to lie flat on the scanning bed. The imaging camera is positioned above you and will record images at various positions around your chest.

This scan takes about 30 minutes and you are required to lie very still during its acquisition.

#### The stress scan:

To start, the technologist will connect several electrocardiograph (ECG) leads to your chest and an IV line will be inserted into your arm.

Under the guidance of the technologist and a cardiologist you will be asked to exercise, usually by walking on a treadmill. To increase the accuracy of the test and to

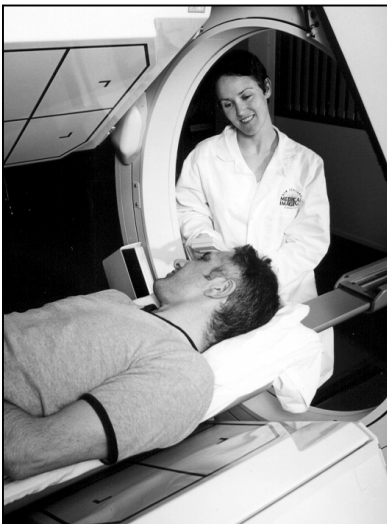
enhance the quality of the images you will be encouraged to exercise for as long as you are able. The change in your heart rate and blood pressure is monitored continuously.

At peak exercise the tracer is injected through the IV line and you are asked to exercise for an additional minute. This ensures the tracer is taken up by the heart under increased blood flow conditions. Once the exercise is over you are then able to take a 30-minute rest before the stress heart images are recorded in a similar manner to those recorded in the rest scan. If you are unable to exercise the stress symptoms can be drug induced instead.

### WHY A MYOCARDIAL PERFUSION SCAN?

The heart muscle receives blood via the coronary arteries. If these arteries become partially blocked or narrowed by accumulation of fatty deposits, the heart may not receive the blood it needs to function normally. This is commonly known as coronary artery disease (CAD). In some people physical exercise may cause chest pain (angina pectoris), breathlessness, and/or fatigue. For others, there may be no symptoms to indicate insufficient blood supply.

Myocardial perfusion imaging is a non-



## SPECIAL INSTRUCTIONS

### Prior to the test:

- Nothing to eat for four hours before the study. You may have a drink of water.
- Avoid all products containing caffeine for 24 hours prior to the study. This includes tea, coffee, cola drinks, and chocolate.

### Medication:

For this scan we may require you stop taking some of your medication.

Check accompanying letter to see if this applies to you.

If you have any concerns check with us, your doctor or your cardiologist before stopping any medication.

### What to bring:

- Bring the results of any previous cardiac investigations or admissions you may have.
- Bring the letter of referral from your doctor or specialist.
- Wear or bring comfortable clothes for the exercise test.

### Considerations:

Adverse reactions to this test are very rare, but do alert the technologist if you feel anything unusual during the study.

The tracer administered contains a small amount of radioactivity. The amount of radiation you will be exposed to is comparable to that from an X-ray or CT scan.

This radiotracer remains in your body for a short time, usually a few hours, and is cleared through natural body functions. Drinking plenty of fluids will help eliminate the radiotracer even quicker.

***If you are pregnant, suspect you may be, or are a nursing mother, discuss this with your doctor before undergoing the test.***

### After the scan:

You may resume your medication at the prescribed intervals. You do not need to 'catch up' by taking the medication you missed.

There are no restrictions after this procedure and you will be able to drive and proceed as normal.

For more information contact NZMI or access the American Society of Nuclear Cardiology website - [www.asnc.org](http://www.asnc.org)

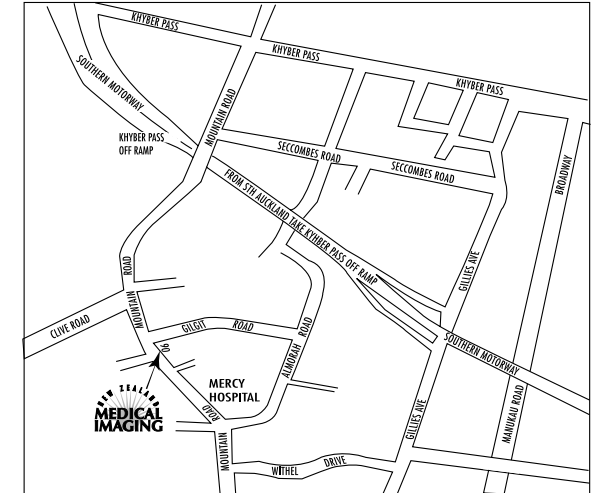
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Appointment times for your Myocardial perfusion study.

Date: \_\_\_\_\_

Times: \_\_\_\_\_

Location:



90 Mountain Road,  
Epsom,  
AUCKLAND

Tel: 09 638 9173

Freephone: 0800 IMAGING  
(0800 462446)

### Instructions in brief:

- No caffeine for 24 hours before the study.
- Fasting for four hours before the study.
- Bring or wear comfortable clothing for the exercise test.
- Make a note of any medication you are on.