



## MYOCARDIAL PERFUSION SCAN – TWO DAY STUDY (MIBI, SESTAMIBI OR THALLIUM SCAN)

This is a 2 part test used to evaluate myocardial perfusion (blood supply to the heart muscle) while resting and after exercise. It requires 2 injections of a radiopharmaceutical.

1<sup>st</sup>  
Appointment:

2<sup>nd</sup>  
Appointment:

**Please call 4124 3580 to confirm your appointment the day before your scan.**

### FIRST AND SECOND DAYS – PREPARATION

1. Fast for **3 hours** prior to your test (both days, no food or drink).
2. Wear comfortable clothing (including a separate top and bottom outfit) and bring something to occupy your time as there are considerable waiting periods between each part of the tests.
3. Insulin dependent Diabetics should have a light breakfast on the morning of the test. The morning insulin dose will need to be adjusted, please discuss with your Doctor.

### FIRST DAY (REST STUDY)

#### **ADDITIONAL PREPARATION**

1. Bring your referral, Medicare card, patient questionnaire and list of medications.
2. If you have had this study in the past, please bring your previous results with you to assist our Nuclear Medicine Doctor with your report.

#### **PROCEDURE**

- a) You will be taken into the injection area where an intravenous catheter (needle) will be inserted into a vein in your arm.
- b) The radiopharmaceutical will then be injected. A waiting period of 30-60 minutes will be allowed to ensure adequate distribution of the injection.
- c) Females will be asked to remove their bra, if wearing one.
- d) Any metal objects from your chest and neck area are to be removed.
- e) You may leave your clothing on for the scanning.
- f) You will be taken through to the camera where you will be required to lie on a scanning table and asked to keep still while your pictures are taken. These pictures will take approximately 30 minutes.



## SECOND DAY (STRESS STUDY)

### ADDITIONAL PREPARATION

1. 24 hours – cease **all caffeine** – eg tea, coffee, decaffs, coke, milo, green tea, herbal tea, chocolate, energy drinks.
2. You may be required to cease some medications, including those containing theophylline (sometimes used for asthma) and dipyridamole (sometimes used to prevent blood clotting). Check with your Doctor to make sure it is safe to do so.

### PROCEDURE

- a) Procedure (a) to (e) followed on your first test day (*see above*) will be repeated, followed by a period of waiting prior to commencement of the stress test.
- b) Your heart will then be ‘stressed’ using either:
  - an injection of a short-acting medication, either Dipyridamole (Persantin) or Dobutamine (for asthmatics only); or
  - bicycle exercise.
- c) At the appropriate time during the stress test you will receive a second injection of the radiopharmaceutical. During the stress test your heart will be continuously monitored by a Doctor and a trained assistant.
- d) A set of pictures will be taken after a wait of 30 minutes.

### SIDE EFFECTS/RISKS

With either stress method there is a small risk of serious complications. The risk of death is about 1 in 10,000 with any stress test. There is also a small risk of other, non-fatal complications such as heart attacks, chest pain, irregular heart rhythms and breathing difficulties.

If Dipyridamole is used some patients experience a mild headache, a flushed sensation or mild shortness of breath. All these minor side effects can be reversed rapidly with an injection of a reversal agent/ ‘antidote’ to the Persantin called Aminophylline.

Dobutamine can cause headache, chest pain and a sensation of the heart thumping. These side effects usually resolve very quickly once the test is finished.

Sestamibi and Tetrafosmin are very safe pharmaceuticals, occasionally patients will experience a metallic taste in the mouth for a short period of time following injection. In clinical trials symptoms such as headache, flushing or rash, and very rarely anaphylaxis, have been reported.

**PLEASE NOTE:** Once your pictures are completed, our Nuclear Medicine Doctor will review them and form a report. Your results will be ready within 2 working days and special arrangements can be made if a report is required urgently – please advise us as soon as possible if this is the case. If you have been referred by a Specialist we can also send a copy of your report to your GP. Our Nuclear Medicine Technologists and Nuclear Medicine Doctors will be happy to answer any questions prior to your test.