

Myocardial Perfusion Scan (Heart Scan)



**Patients must also read their appointment letter
and any enclosures carefully**

What is a Myocardial Perfusion Scan (Heart Scan)?

A myocardial perfusion scan (heart scan) is a scan that checks the flow of blood to your heart muscles. It involves an injection of a small amount of radioactive liquid followed by imaging with a special camera.

How do you prepare for this scan?

Instructions with regard to eating, drinking and medication are explained in the appointment letter. **It is very important that you follow these instructions.**

If you are **diabetic** or have any problems with the instructions in your appointment letter or this leaflet, please ring the department on the number at the end of this leaflet.

Please bring a cheese sandwich with you to your appointment (or something else containing fat).

Females: Due to the radiation involved, there is a very small risk to an unborn or breastfeeding child. Therefore, it is important that you let us know in advance if you are, or may be, **pregnant** or **breastfeeding**.

Who can come with you for this scan?

It is fine if you want someone to come with you on the day of your scan. However, because we only have one waiting room, we advise you not to be accompanied by children or pregnant women to help to minimise the radiation exposure to these people.

Finding the Nuclear Medicine Department and Cardiac Outpatients

The Nuclear Medicine Department is located in Zone C, Department C16.

Cardiac Outpatients is in Zone B, Department B59.

How is this scan performed?

The scan is performed in two parts, both of which are done on the same day. The whole procedure will take most of the day.

The first part of the scan takes place early in the day, when an image is taken which shows the blood flow to your heart when it is working hard (the stress scan). The second part of the scan takes place a few hours later, showing your heart muscles at rest.

Part One – Stress Scan

You will initially be asked to attend Cardiac Outpatients, where your heart rate will be increased for a few minutes to increase the blood flow to your heart. You may be asked to walk on a treadmill, but if you are unable to do this you will be injected with a drug which simulates the effects of exercise on the heart. Your blood pressure will be monitored every few minutes and a heart trace (ECG) will be recorded. When your heart rate has increased, the doctor will give you an injection of radioactive liquid. When the stress preparation is finished, you will be asked to eat a chocolate bar, which we will provide.

You will then be asked to make your way to the Nuclear Medicine Department for your scan. If you have difficulty walking we can arrange for you to be taken in a wheelchair.

Before the scan, you will be asked to drink a cup of full fat milk and some water, which we will provide. You can use the toilet at any time.

You will then be taken into the scanning room where you will lie on a bed and a special camera will circle around your chest taking continuous pictures for about 20 minutes. During this time, it is important that you lie still. Female patients will be asked to remove their bra.

Taking the pictures will not make you feel any different.

Part Two – Rest Scan

This is performed in the Nuclear Medicine department a few hours later (it will not be necessary for you to go back to the Cardiac Centre). You will be given another injection of slightly radioactive liquid into a vein in your arm.

There will be a gap of one hour between this injection and your rest scan. During this time, you will be asked to eat another bar of chocolate, which we will provide. You will also be asked to eat something else containing fat, e.g. a cheese sandwich, which you will need to provide. Just before the scan we will ask you to drink another cup of full fat milk and a few cups of water. We will provide these drinks. You can use the toilet at any time.

When it is time for your scan, you will lie on the scanning bed and the special camera will again take pictures of your heart. Your heart beat will be monitored during the scan. This is done by placing two electrodes (sticky pads) on your chest and one on your lower right leg. You will not be asked to remove all clothing but we may need to remove or undo some clothing to allow access to your chest and leg. Female patients will be asked to remove their bra. The scan usually takes about 20 minutes and you will need to keep very still during this time.

After each of the scans is finished, you will be asked to stay in the waiting room while the images are technically assessed. It is sometimes necessary to repeat a scan. If this is necessary the technician will explain why.

Why are you asked to eat chocolate, fatty food, and drink milk and water?

Eating and drinking in this way helps us see your heart more clearly. If you want this to be explained more fully please ask the technician on the day of the scan.

How will this scan affect you?

The injection and the scan for the rest study should not affect you in any way. You may feel tired after the stress study and prefer to have someone with you on the homeward journey. Neither study will affect your ability to drive home.

For **24 hours** after the injection, all patients should sit on the toilet when passing urine.

Are there any risks from the radioactive liquid?

The radioactive liquid is used as sparingly as possible and the benefits of this scan far outweigh the small risk from radiation. The radiation dose to you is similar to the radiation that you receive from natural sources in four years.

Will the radiation affect other people?

The radiation dose to other people around you is low and is therefore not a cause for concern.

How will you get the results?

The doctor (usually a cardiologist) who referred you for this scan will write to your GP with the results about three to four weeks after the scan has been completed. If your GP does not receive a letter, you or your GP can contact the cardiologists' secretary at the Royal United Hospital.

Travelling after your scan

Some airports, seaports, train stations, bus stations and major sporting event venues have installed very sensitive radiation detectors. It is possible that these detectors may be triggered by the small amount of radioactivity remaining in your body on the days following your scan. Therefore, if you are planning to travel within **seven days** following your scan, it is recommended that you carry your appointment letter to show to officials if necessary.

Additional Information:

If you have any concerns or questions with regard to this procedure, or if you need this information in another format such as larger print, please telephone the Nuclear Medicine Department on the phone number below:

Nuclear Medicine Department: 01225 824076