Mersey and West Lancashire Teaching Hospitals
NHS Trust

# Having a Myocardial Perfusion Scan

## Patient information leaflet

**If you need this leaflet in a different language or accessible format please speak to a member of staff who can arrange it for you.**

اگر به این بروشور به زبان دیگر یا در قالب دسترس‌پذیر نیاز دارید،
لطفاً با یکی از کارکنان صحبت کنید تا آن را برای شما تهیه کند.

Jeśli niniejsza ulotka ma być dostępna w innym języku lub formacie,
proszę skontaktować się z członkiem personelu, który ją dla Państwa przygotuje.

Dacă aveți nevoie de această broșură într-o altă limbă sau într-un format accesibil,
vă rog să discutați cu un membru al personalului să se ocupe
de acest lucru pentru dumneavoastră

如果您需要本传单的其他语言版本或无障碍格式，请联系工作人员为您安排。

إذا احتجت إلى هذه النشرة بلغة أُخرى، أو بتنسيق
يسهل الوصول إليه، يرجى التحدث إلى أحد الموظفين لترتيب ذلك لك.

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# Introduction

This leaflet aims to inform you on having a Nuclear Medicine Scan. It explains how the test is done, what to expect and what the possible risks are. If you have any questions or concerns, please do not hesitate to speak to your doctor or speak to the Nuclear Medicine staff.

## What is a Nuclear Medicine Scan?

A Nuclear Medicine Scan involves the introduction of a small amount of a radioactive tracer into your body usually by injection into a vein. The tracer is then taken up by the area of the body being examined, for example your bones or heart muscle. This allows us to use a special camera– a Gamma camera, to detect the radioactivity and perform your examination.
The radioactive tracer is ordered especially for you and failure to attend may mean a costly waste.



## The reasons for the procedure

The purpose of the test is to see whether you have Angina and if so, how bad it is. Angina is caused when the arteries that supply the heart with blood become narrowed or furred up. The test will also provide information regarding the structure and function of the heart.

The test usually involves a stress scan and rest scan. The rest scan is performed on a separate day and will be discussed with you on the day of your stress test.

## Stress scan

When you attend for this scan, you will be given a drug to exercise your heart, as well as the radioactive injection, before having the scan. A cannula type needle will be inserted into a vein in your arm. You will then be given the drug in a drip over 6 minutes. The radioactive injection is given part way through this drip. During this you will be monitored very closely.

On rare occasions (due to other conditions such as asthma) an alternative drug is used to exercise the heart meaning the drip may last up to 13mins. The risks associated with the test are the same regardless of the drug used.

You will be connected to a heart monitor, an ECG (Electro Cardio Graph) machine and a blood pressure cuff will be placed around your arm. You will need to undress from the waist upwards and a gown will be provided. A specially trained technician will record your ECG and blood pressure at regular intervals throughout the drip and for about ten minutes afterwards.

Once you have had the drip you will be disconnected from the monitors and asked to wait in the waiting room for approximately 15 minutes, before you have your stress scan. The scan itself takes about 20-30 minutes. Occasionally the images taken by the camera are unclear and you may be asked to wait for a little longer, before having the scan repeated.

As you are given a radioactive substance, you are advised to avoid prolonged close contact with babies and young children for 24 hours after each scan.

## Rest scan

When you attend for this scan, a small amount of a radioactive substance will be injected into a vein in your arm. You will be asked to wait approximately 20-30 minutes and then you will have a similar scan to your stress scan.

You will be asked to lie flat on the scanner, with your arms above your head, while special cameras move around your chest while taking scans of your heart. The examination will then be completed with a low dose CT scan to help clean up the images. Once the scan is complete, you will be allowed home.

# Risks

## Are there any risks?

For this scan it is necessary to inject a small amount of a radioactive tracer, called a Radio pharmaceutical, in order to take the pictures. The small risk from this is outweighed by the information that will be gained by taking the scan. A clinician will have checked the request to make sure this is the appropriate test for you. If you have any concerns or would like further information, please contact the department where you are having your Myocardial Perfusion scan.

If you do not understand why you need to have this scan, please speak to the doctor who referred you.

https://www.ukhsa-protectionservices.org.uk/radiationandyou/




## Pregnancy

If you are, or think you could be pregnant, please contact us prior to your appointment on the phone number in your appointment letter.

## Breast feeding

If you are currently breast feeding, please contact the department for further advice.

## Extravasation

Occasionally when you have an injection there is a small risk that the injection of the tracer or drip can leak out of the vein and under the skin. This is called an extravasation. We find this occurs in 1 out of 200 injections. If this does happen then further advice will be given to you by the Radiographer and Radiologist at the time of the procedure.

## Risks of the procedure

A Myocardial Perfusion Scan is a routine investigation and complications are rare.
The drug used to exercise the heart can occasionally cause the heart to beat too fast or too slow. This usually settles very quickly once the drip is stopped. Occasionally it may be necessary to give another drug to stabilise the heartbeat.

Sometimes people have an allergic reaction to the drugs given, although again this is very rare. There is a very small risk that the drug used to exercise the heart will cause a heart attack (less than 1 in 5000).

Should any complications occur, you will immediately receive all the necessary treatment. This may result in you being admitted to a ward if required.

## Discomforts of the procedure

The drug used to exercise the heart can cause some unpleasant side-effects or symptoms. These symptoms vary from person to person but usually settle within minutes of stopping the drip. They include:

- Chest discomfort
- Breathlessness
- Flushing
- Feeling light-headed
- Palpitations (a feeling of the heart beating more quickly than you would expect).

If you experience angina when you exercise, the drip may bring on your symptoms.

You will be asked to report any symptoms to the doctor or specialist nurse who is monitoring you. Although such side-effects can be unpleasant, they are not dangerous and are usually very short-lived. The doctor or nurse supervising your test will provide reassurance throughout.

## Alternatives to the procedure

The alternatives are to manage your heart condition without the additional information, or to refer you for another test known as a Dobutamine Stress Echo. This test also involves using a drug to stress or exercise the heart. It may also be possible to do a coronary angiogram or catheter test.

## Consequences of not having the procedure

It may be more difficult to treat your heart condition without the information that is provided by this procedure.

## Benefits of the procedure

The information obtained from the test will determine whether your symptoms are related to your heart. The information obtained will enable your doctor to treat your condition in the most appropriate way.

## Finally

The pictures taken during the examination are studied carefully and a detailed report is produced. The results will be sent to the person who referred you for the test. They will discuss the results with you and any treatment you may need.

You may already have an appointment with the team who referred you. If not, please contact them to arrange one to discuss the results of this test.

If you have any further questions, please do not hesitate to call the Radiology Department via the number given on your appointment letter.

As this is a teaching hospital there may be students and observers present during your examination as part of their ongoing training. Please let the staff know if you do not wish any students to be present during your attendance.

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