

Myocardial Perfusion Scan

Medical Physics

Diana Princess of Wales Hospital, Grimsby



Name: _____

Who to contact and how: _____

Notes: _____

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Grimsby
DN33 2BA
03033 306999
www.nlg.nhs.uk

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Hospital
Woodland Avenue
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Kindness · Courage · Respect

Information for patients

Introduction

Your doctor has referred you for a Myocardial Perfusion Scan. This leaflet is designed to give you important information to help you prepare for your examination, answer questions you may have and give you an idea of what to expect when you attend for your examination.

What is a Myocardial Perfusion Scan?

A Myocardial Perfusion Scan (MPS) is a non-invasive imaging test that shows how well blood flows through (perfuses) your heart muscle. It can show areas of the heart muscle that may not be getting enough blood flow. It can also show how well the heart muscle is pumping.

The test uses radioactive material called tracers. Tracers mix with your blood and are taken up by your heart muscle as the blood flows through your heart arteries.

A Gamma camera takes pictures of your heart.

Do I need to prepare for the scan?

We would advise wearing two separate items (top and bottom) of clothing / underwear when you attend for your appointment with an easily removable or front opening top which will allow ECG leads to be attached to your chest.

Fasting Instructions

If your appointment is in the morning:

You must not have anything to eat or drink after midnight on the morning of your examination.

If you need to take any medication which we have not asked you to stop (see pre-interview questions), then please do so with a small glass of water. You **MUST NOT** have tea / coffee or energy drinks and you must not smoke cigarettes, cigars, e-cigarettes or chew gum after midnight on the day of your examination.

If your appointment is in the afternoon:

A very light breakfast is allowed such as two slices of toast but at least 4 hours before your appointment. If you need to take any medication which we have not asked you to stop (see pre-interview questions), then please do so with a small glass of water. You **MUST NOT** have tea / coffee or energy drinks and you must not smoke cigarettes, cigars, e-cigarettes or chew gum after midnight on the day of your examination.

What if I am diabetic?

If your diabetes is controlled by tablets:

Follow the general instructions for all patients by having nothing to eat or drink after midnight on the morning of your appointment, apart from water if required. Do not take the tablets that control your diabetes on the night before or morning of the examination. Bring the medication with you.

Information for patients

If your diabetes is controlled by insulin:

Follow the general instructions for all patients by having nothing to eat or drink after midnight apart from water, if required. You should not take your morning dose of insulin but bring this with you. Facilities will be made available for you to inject your insulin. However, if having nothing to eat or drink from midnight would cause problems, a very light breakfast would be permitted such as two slices of toast. You can have a small glass of water to help you take your tablets but you **MUST NOT** have tea or coffee.

THE ABOVE INSTRUCTIONS MUST BE FOLLOWED FOR BOTH THE FIRST AND SECOND PART OF THE EXAMINATION.

What shall I bring with me?

You will need to bring your completed interview question sheet and your appointment letter.

As part of both examinations you **MUST** eat something 15 minutes prior to your scan. Please bring with you a bread roll with a filling such as meat, cheese or egg – the filling must contain a reasonable amount of fat to help your gallbladder contract. Alternatively, bring a standard size chocolate bar (Mars, Snickers etc). You will be informed by our staff exactly when to eat this on both days.

What does the first part of the examination involve?

The first part of your examination is called a 'stress test' which will be followed by the first set of pictures using the Gamma camera.

A staff member will speak to you about the information you have provided on your pre-interview questions sheet.

You will have an intravenous line (IV) placed in your arm.

A cardiac physiologist will place electrodes on your chest. These record your heartbeat during the stress test. Your blood pressure will be taken throughout the test.

You will be asked to walk on a treadmill. However, if you cannot exercise sufficiently to reach the required activity level, your IV line will be connected to a pump containing medication which will allow us to stress your heart without exercise. This medication will be either adenosine or dobutamine.

When you reach the required activity level, you will receive a small amount of radioactive material (tracer) through the IV line. Once your heart rate returns to normal, you will then be taken to the Medical Physics Department and given a drink.

After 30 – 45 minutes a member of staff will give you a further drink and ask you to eat the food which you have brought with you.

During the scan you will have to lie flat on a bed with your arms above your head. This will usually take 20-30 minutes. You will not normally need to undress for the scan. You may also be connected to an ECG machine whilst having the scan.

Information for patients

When your scan is complete and the examination is finished, you will be free to leave the Medical Physics Department. You will need to return on a second day for the final part of the examination.

What does the second part of the examination involve?

The second part of your examination is called a 'rest test', which will be carried out in the Medical Physics Department where you will be given more radioactive tracer with your heart at rest and another set of pictures will be taken in the same way as above. After we have finished the scan, you will be free to leave.

Travel to the Hospital

If you need an ambulance or other hospital transport to bring you for your appointment, please call:

0808 1643030 for Grimsby

0800 1700808 for Scunthorpe

0333 1300512 for Goole / Yorkshire

0808 1644550 for LN postcodes

It is important that you arrive on time for your appointment. If you need an ambulance or other hospital transport, please tell them this when you ring.

Can I bring someone with me?

Yes, but you should not bring young children, babies or pregnant women.

What about the radiation?

Nuclear Medicine uses radiation in the form of gamma rays (which are similar to x-rays) to produce images to help diagnose and treat illnesses. Even though you will be injected with radioactive material, the amount of radiation you will receive is small. There is no evidence of any risk from the low dose radiation associated with these examinations. However, if there is a risk associated with such low doses it is too small to be measured. To appreciate the amount of radiation used we have compared this to the radiation dose you would receive by staying in Cornwall, a part of the country that has higher natural background radiation level than other areas. The radiation dose from your examination is equivalent to what you would receive by spending 10 months in Cornwall.

Do I need to take any special precautions after the scan is completed?

The only thing we would advise is to avoid prolonged (i.e. more than 1 hour) of close contact with pregnant women, young children or babies for the rest of the day. This is simply to avoid exposing them to any unnecessary radiation.

Information for patients

What happens to the result of the scan?

A report is sent to the doctor who requested the scan, not to your GP. This is because the doctor who requested your scan will have all the results from other tests and will be able to tell you how the result of this scan affects your care.

Any Comments, Compliments, Concerns or Complaints

If you have any other concerns please talk to your nurse, therapist or doctor. Our Patient Advice and Liaison Service (PALS) are available on 03033 306518 (Grimsby, Scunthorpe and Goole). You can also contact nlg-tr.PALS@nhs.net

As a Trust we value equality of access to our information and services, therefore alternative formats available on request at nlg-tr.interpreters@nhs.net

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