

Nuclear Medicine

Myocardial Perfusion Scan

Patient Information Sheet

A myocardial perfusion scan (heart scan) is used to check the flow of blood in your heart muscles. It involves an injection of a small amount of radioactive tracer followed by imaging with a gamma camera and CT scanner.

This test usually requires two scans to be performed to assess your heart function under stress and at rest. You will be contacted again and receive a separate appointment letter for the second scan if it is needed.

Preparation for your appointment

Please refer to your appointment letter for the instructions regarding eating, drinking and medication. **It is very important to follow these instructions carefully.**

Please also follow any additional instructions given over the phone when confirming your appointment. This may include specific medications to discontinue in preparation for your test.

If possible, please come to your appointment in Clinical Imaging and Measurement alone as we can only accommodate a small number of people in our waiting room. You are welcome to bring someone with you to wait elsewhere in the hospital.

Are there any risks from the radioactive tracer?

The radioactive tracer is used as sparingly as possible and the benefits of this scan far outweigh the small risk from radiation. The radiation dose you will receive if you have both rest and stress tests is similar to the radiation received from natural sources in 6 years. If you only have the stress test this will be halved.

Almost all the radiation will have left your body by 12 hours after your injection. This will be quicker if you drink plenty of fluid and pass urine regularly. You can spend time as usual with your family including sharing a bed if you wish or a car. Try to keep the close contact time as short as possible.

Children and pregnant women have a slightly higher risk from radiation. The highest risk would come from swallowing bodily fluids from the person who has had the injection. So avoid cuddling or kissing babies, toddlers or pregnant women.

24 hours after your injection, the radioactive material will have left your body and there is no further risk.

Pregnancy and Breastfeeding

Let us know in advance if you may be pregnant or breastfeeding. This is important because of the small risk of childhood cancer from the radiation that we use.

If you have male healthcare records and were registered female at birth, please talk to the technologist at your appointment so that they can rule out the possibility of pregnancy. This information will not be recorded or shared without your consent.

How is the scan performed?

The test is usually in two parts: One is called a 'stress' test where your heart rate is increased through a 'stressor' such as exercise or an injection to simulate exercise. The other is a 'rest' test where your test is performed with your resting heart rate for comparison.

Preparing for your Stress Test

- Avoid caffeine for 24 hours
- If asked to stop taking any medications, ensure you have done this and bring your medication to your appointment
- Do not eat anything on the morning of your appointment (ignore this if diabetic) and drink three cups of water
- Bring 50g of cheese to your appointment

Stress Test

- **Attend the Cardiology Outpatients department B59 (third floor)**
- A cannula will be placed in your arm
- Your heart will be stressed through either exercise on a treadmill or through an injection of a drug. You will be monitored with an ECG and blood pressure cuff throughout.
- You will then receive your radioactive tracer injection.
- Then you will be asked to go to the Clinical Imaging and Measurement department C16 (ground floor)

Preparing for your Rest Test

- For non-diabetic patients – you need to fast for 4 hours before your test, except plain water.
- If you are diabetic - you are allowed to have a light early breakfast.
- All medications can be taken as normal

Rest Test

- **Attend Clinical Imaging and Measurement C16 (ground floor)**
- A cannula will be placed in your arm
- The radioactive tracer will be administered through the cannula

Before your scan

- We ask that you drink lots of fluids to help remove radiation from the body faster.
- We also will ask you to eat your cheese and the small KitKats provided.
- The fatty foods and extra fluids help improve the images of the heart. More information can be given by your technician on the day.
- For the Rest test, you will be asked to do some light exercise such as walking up 2 flights of stairs before your scan begins. (If this is not possible for you, we can give advice about seated exercises.)
- Your scan will begin 45 minutes after your injection.

Your scan

- All clothing from the waist up must be removed. A gown will be provided. ECG monitors will be attached for the duration of the scan.
- The gamma camera will circle around your chest taking continuous pictures for 20 minutes. You will lie on your front with your arms above your head. If this will not be possible for you, please let your technician know and you can be positioned differently if necessary.
- Once the scan is finished, the technician will need to spend a few minutes checking the images before you can leave. It is sometimes necessary for the scan to be repeated.

After your scan

For 24 hours after your appointment all patients should sit on the toilet when passing urine. This is to make sure that all the urine gets properly flushed down the toilet as it will be slightly radioactive.

Results

Results will be sent to your GP by the cardiologist in about three to four weeks.

Travelling after your scan

Some major event/ transport venues have very sensitive radiation detectors. These detectors could be triggered by the small amount of radioactivity remaining in your body on the days following your scan. If you're planning to travel within **seven days** following your scan, we recommend that you carry your appointment letter with you.

Information for other hospitals or care homes

*Within the **four days** following your scan:*

If you are admitted to a care home or hospital (other than the RUH), or if you are cared for by a healthcare worker in your home, please ask them to contact the RUH Clinical Imaging and Measurement Department. Their employer might need to register with the Health and Safety Executive to show that their staff are aware of the small amount of radioactivity that is present for a few days after your scan.

If you have any concerns or questions about your scan, or you need this information in another format such as larger print, please telephone the Clinical Imaging and Measurement Department.

Clinical Imaging and Measurement Department
Zone C, Department C16
Royal United Hospitals Bath NHS Foundation Trust
Combe Park, Bath, BA1 3NG
01225 824080 | www.ruh.nhs.uk

Please contact the Patient Advice and Liaison Service (PALS) if you would like to feedback your experience of the hospital. Email ruh-tr.pals@nhs.net or telephone **01225 825656**

Date of publication: January 2024 | Ref: RUH NM071
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