

Heart Scan (MUGA)

Patients must also read their appointment letter and any enclosures carefully



What is a Heart Scan (MUGA)?

A heart scan, also known as a MUGA (Multi-Gated Acquisition) scan, is a diagnostic procedure. The scan looks at how well your heart is pumping blood around your body. It involves an injection of a small amount of radioactive liquid and imaging with a special camera.

How do you prepare for this scan?

You can eat and take medication as normal.

Please drink 2-3 litres of fluids (not including coffee or alcohol) beginning the day before your appointment until your appointment time. This can make it easier for the technologist to find your veins and give you your injection. You can use the toilet as normal.

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 accompany you for this scan?

Please do not bring a child or pregnant women with you on the day of your scan because of the radiation involved.

If you bring someone to keep you company, they will receive a small radiation dose while they are close to you. This dose is similar to the radiation dose they receive from natural sources over 1 week. They can reduce this dose by staying further away from you, for example sitting across a table or across a room instead of right next to you.



Finding the Clinical Imaging and Measurement Department

The Clinical Imaging and Measurement Department is located in Zone C, Department C16.

How is the scan performed?

A small amount of blood labelling agent will be injected into a vein in your arm. This will **not** make you feel any different. You will then be asked to stay in the waiting room for about 15-20 minutes.

After this time, you will be called into the scanning room where you will lie on a bed. You will not be asked to remove all your clothing, but some clothing may need to be removed to allow access to place electrodes (sticky pads) which are used to monitor your heart beat.

The technician will then give you a second injection into a vein in your arm. This injection contains a slightly radioactive liquid. You will remain lying on the bed, and pictures of your heart will be taken by a special camera, which is placed against the left side of your chest. The time this takes varies, but on average, it takes between 10 and 20 minutes. Neither the injections, nor the scan, will make you feel any different. You will **not** be enclosed in a tunnel and you will **not** be left alone during the scan.

How will the scan affect you?

You should not feel any different. The procedure will not affect your ability to drive home so it is not necessary for anyone to accompany you unless you so wish.

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 you will receive is similar to the radiation that you receive from natural sources in a year.

The injection will not affect the way you feel and the radioactive substance is quickly eliminated from your body. You can help this process by drinking plenty of fluid for the rest of the day and emptying your bladder more often than normal.

Will the radiation affect other people?

The radiation reduces after your scan, and is low once your scan is complete. After you have had your scan, the radiation dose to people who are close to you is similar to the radiation dose they receive from natural sources over a few days. If you wish to reduce this risk further, you can avoid spending time close to them until 6 hours after your injection.

Children and pregnant women have a higher risk from radiation, so you should avoid spending time close to them until 12 hours



after your scan. They can be in the same room as you, but try to avoid sitting next to them.

How will you get the results?

You will not be given any results on the day of the scan. The consultant radiologist will, within a few days, send a report to the doctor or specialist who referred you for the scan.

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.

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.

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Additional information

If you have any concerns or questions with regard to this procedure, or you need this information in another format such as larger print, please telephone the Clinical Imaging and Measurement Department using the phone number below:

Clinical Imaging and Measurement: 01225 824080

Royal United Hospitals Bath NHS Foundation Trust
Combe Park, Bath BA1 3NG
01225 428331 www.ruh.nhs.uk

Please contact the Patient Advice and Liaison Service (PALS) if you require this leaflet in a different format, or would like to feedback your experience of the hospital.

Email ruh-tr.pals@nhs.net or telephone 01225 825656.