

Information for patients and carers

Cardiac MIBG Scan

A decorative graphic at the bottom of the page consisting of three overlapping, wavy bands of blue color, transitioning from a lighter blue at the top to a darker blue at the bottom.

What is a Cardiac MIBG scan?

A cardiac MIBG scan provides information about nerve function in the heart. This can be used in two ways:

- To look for evidence of Parkinsonian syndromes
- To assess the nerve function of heart muscle in patients with heart failure

The cardiac MIBG scan is named after the chemical I-123-meta-iodobenzylguanidine or MIBG for short.

Patients will need to attend the Nuclear Medicine department for two scan appointments on the same day.

The procedure involves an injection followed by a scan for the first appointment, and a second scan appointment approximately 4 hours later. Your scan pictures will be taken using a gamma camera similar to the one shown in the picture below.



Please inform us before you attend:

- If you are, or think you may be pregnant
- If you are breastfeeding/chest feeding
- If you weigh over 25 stones (158 Kilograms)
- If you are unable to lie on your back
- If you have problems standing and/or need a hoist to transfer

Preparation for the scan

In preparation for the two scans, you will be given two doses of potassium iodide tablets to swallow. These tablets contain a small amount of iodine, which protects your thyroid gland from the radioactivity in the injection given as part of the test.

The tablets need to be taken as follows:

- Take 2 tablets on the day before your first appointment (we will send these to you in the post)
- Take 2 tablets on the day of your first appointment (we will give these to you when you arrive in the Nuclear Medicine department on the day of your scan)

The tablets can be taken with food and/or water and can be taken whole or broken in half. You may continue to take other medication as normal.

Can you bring a relative or friend with you?

A relative or friend can accompany you to the hospital, but they will not usually be allowed into the room when you have your examination. Please note that we have limited seating and do not have childcare facilities. Therefore, small children should not attend your appointment.

Your scan

You will be asked to remove any metallic objects (coins, phone, keys etc) from your clothing or you may be asked to change into a hospital gown. You will need to lie on your back on the scanner bed. Special cameras which are about the size of a large suitcase will come close to you during the scan.

Injection and First Scan

- A small tube, called a cannula, will be inserted into a vein in your hand or arm and a small amount of radioactive liquid will be injected. The injection is given slowly over a 5-minute period and your blood pressure will be monitored before, during and after the injection. There are usually no side effects from the injection
- A scan, lasting approximately 10 minutes, will be taken soon after the injection
- You should drink plenty of fluids for the rest of the day. The radiographer will discuss this with you during your appointment. If you are on restricted fluids, please tell us and we will advise what to do
- Once the first scan is complete, you will be free to leave. We will ask you return at a time specified by the radiographer. This will be around 4 hours after your injection

Second Scan

- When you return to the Nuclear Medicine department, you will be asked to lie down on the scanning bed again and a second scan, lasting approximately 10 minutes, will be undertaken

Are there any side effects?

The radioactive injection can occasionally cause a drop in blood pressure. To minimise the risk of this, the radioactive liquid is injected slowly over 5 minutes.

Your blood pressure will be checked before, during and after the injection to ensure it is within normal limits before you leave the department.

Are there any risks?

All medical procedures and tests carry both risks and benefits. Your doctor has requested this scan as they feel the information they will gain is a greater benefit than the risk of being exposed to radiation.

The injections contain a small amount of radioactivity that emits gamma rays (these are similar to X-rays). The smallest dose possible is used, in line with national regulations, to provide as much information as possible about your condition.

The results of your scan will give your doctor useful information about your condition and will help to plan your treatment.

After the scan

After your scan you must continue to follow the advice about drinking that you were given after the injection. You are free to go home or go back to work.

In order to avoid exposing them to unnecessary radiation, please avoid spending a long time in close contact with young children or pregnant women for 24 hours after your injection. You should aim to spend no more than 15 minutes each hour cuddling or sitting next to them. It is also best if you do not share a bed with a child or a pregnant woman on the evening of your scan.

Travel abroad

Please inform the radiographer on arrival if you intend to travel abroad within 7 days of your scan. Radiation monitoring at security in airports or ports may detect some of the radiation you have

received during your scan. We will give you a letter that will state what test you have had, this can be used when travelling.

Your results

The images will be reviewed after your visit. You will be advised when and how you will receive your results during your appointment. You will not receive any results on the day of the scan.

Contact details

Should you require further advice or information please contact Nuclear Medicine on **01772 522381**.

Sources of further information

www.lancsteachinghospitals.nhs.uk

www.nhs.uk

www.accessable.co.uk

www.patient.co.uk

www.lancsteachinghospitals.nhs.uk/veteran-aware

<https://bepartofresearch.nihr.ac.uk/>

Further information about radiation can be found on the government webpage: Medical Radiation: uses, measurements and dose safety advice: www.gov.uk/government/collections/medical-radiation-uses-dose-measurements-and-safety-advice

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www.lancsteachinghospitals.nhs.uk/patient-information-leaflets

Lancashire Teaching Hospitals is a smoke-free site. Smoking is not permitted anywhere on any of our premises, either inside or outside the buildings. Our staff will ask you about your smoking status when you come to hospital and will offer you support and advice about stopping smoking this will include Nicotine Replacement Therapy to help manage your symptoms of withdrawal and the opportunity to speak to a nurse or advisor from the specialist Tobacco and Alcohol Care Team.

If you want to stop smoking, you can also contact Smokefree Lancashire on Freephone **08081962638**.

Please ask a member of staff if you would like help in understanding this information.

This information can be made available in large print, audio, Braille and in other languages.

Our patient information group review our leaflets regularly, if you feel you would like to feedback on this information or to join our reading group please contact us on email address:

patientexperienceandinvolve@LTHTR.nhs.uk

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