NHS
Royal Berkshire
NHS Foundation Trust

Having an Iodine-123 MIBG scan

An Iodine-123 MIBG scan is usually done to look for uncontrolled or abnormal cell growth in the body and is often done in conjunction with an MRI scan and an ultrasound scan. The MIBG scan is named after the chemical 'iodine-123-metaiodobenzylguanidine' or MIBG for short, to which the isotope is attached.

Is it safe for me to have the scan?

For this scan it is necessary to inject a small amount of radioactive tracer, called a radiopharmaceutical, in order to take the pictures. The small risk from this radiation dose is outweighed by the information that will be gained by having the scan. There is a table showing various radiation risks at the end of this leaflet. Ask if you want any more information. All investigations are vetted to make sure this is the appropriate test for you. If you don't understand why you need to have this scan please speak to the doctor who referred you.

Could you be pregnant?

For this test, we need to be certain that you are not pregnant, so if you are between 12 and 56, we need to rule out this possibility. Ideally, we want to plan the scan around the beginning of your menstrual cycle (day 1 of your period); please contact the department to arrange this.
If you know you are pregnant, the scan may be postponed until another time. Also contact the department if you are breastfeeding, as you may be given special instructions.

Preparation for your scan

For the test, we require you to take Lugol's solution (aqueous iodine solution 5%) 1 drop (0.1 – 0.3 ml) three times a day, well diluted in milk for **the day before the scan** and the **following six days.** Approximately 20mls of solution and a graduated dropper or 1 ml syringe is needed. **A prescription for this will be provided.** This is to protect your thyroid from our injection. You can eat as normal. Please avoid caffeine (tea, coffee) on the day of the test, but continue drinking other fluids. Certain medication may have to be stopped for this test and we will discuss this with you prior to your appointment.

Radiation protection precautions (after your injection)

It is important we minimise the radiation exposure to other people who may be near you after you have had your radioactive tracer injection. Most of the radiation from the tracer will drop to a safe level and be gone from your body within the first day. To keep those around you safe during the first 24 hours after your injection:

- **Avoid** close contact with other adults and children. Close contact means within 1 metre of

each other (e.g., sitting directly next to, cuddling and sleeping next to a partner). If you think this may be difficult for you, **please speak to a member of staff before your appointment**.

- Sit at least 1 metre away from other patients in the waiting area or other areas of the hospital during your visit.
- Drink plenty of fluids to flush the radioactivity out of your body quickly.
- Urinate (pee) frequently – please sit down to urinate and flush twice afterwards.

Your injection

Before, during and after your injection, your blood pressure will be taken. You may be asked to lie down for the injection. A small amount of radioactive tracer will be injected into a vein in your arm or hand. You may have had a blood test in the past. This is much the same. You will feel the ‘pinprick’ of the needle a bit, but that is all. The injection will be given very slowly usually over 5 minutes.

Your scan

The scan involves taking a series of pictures using a gamma camera. You will be required to have a scan at 1 hour, 4 hours and 24 hours after your injection. This means returning the next day for the ‘24 hour’ picture.

You may be asked to wear a hospital gown for the scan or remove any clothing with metal items, such as zips or clasps.

For the pictures, you will be lying down on your back and an image will be taken from the top of your head to the top of your thighs. After this, we will take a 3D picture of your abdomen. In total this can take up to 1½ hours. As part of the scan, we will take a short 2-minute CT scan.

After your scan

It is very unlikely that you will feel any side-effects after the scan, but if you think that you have please let the medical physics department know. You may continue all your normal activities unless you have been advised otherwise. After your scan there will be some radioactivity left in your body but this will not present a significant risk to other people around you. The radioactivity in your body will soon disappear, and if you continue to drink plenty of liquids this will help clear the radioactivity more quickly.

Your results

Your scan will be looked at by a specialist doctor, who will issue a report. The report will be sent to the doctor who requested your scan rather than 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 your scan affects your care.

Contacting us

Medical Physics Department, Level 1 North Block, Monday to Friday, 9.00 am to 5.00pm.

If you have any questions about your treatment, please ask the staff looking after you or telephone 0118 322 7355 or email: rbb-tr.physics@nhs.net

To find out more about our Trust visit www.royalberkshire.nhs.uk

Please ask if you need this information in another language or format.

RBFT Physics & Clinical Engineering Department, January 2026.
Next review due: January 2028.

The table below is a simple guide to the levels of radiation risks for various examinations. These are measured in millisieverts (mSv).

Source of exposure (using RBFT local diagnostic reference levels (DRLs) for Nuclear Medicine)	**Dose**
Having a chest x-ray	0.014 mSv
Taking a transatlantic flight	0.08 mSv
UK average annual radiation dose	**2.7 mSv**
I-123 MIBG*	**5.2 mSv**
CT scan of the chest – CT scan of whole spine	6.6 mSv – 10 mSv

*Please note that the dose stated is for the radiopharmaceutical injection. The addition of a CT scan as part of the procedure will incur an additional dose: the estimated dose for an average adult CT abdomen is 3.6mSv.