

Having an Iodine-123 MIBG scan as an outpatient

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.

For female patients

If you know that you are pregnant, or there is any chance that you may be pregnant, then please contact the department where you will be having the scan. **Do this as soon as possible as the scan can be postponed if it is not urgent. Also contact the department if you are breastfeeding**, as breastfeeding patients should bank several feeds and feed the baby naturally prior to injection. Milk should be expressed and discarded for 21 hours after the injection, after which, you may restart breastfeeding.

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 and drink as normal but you will be asked to have plenty of drinks during the day of the injection. Certain medication may have to be stopped for this test and we will discuss this with you prior to your appointment.

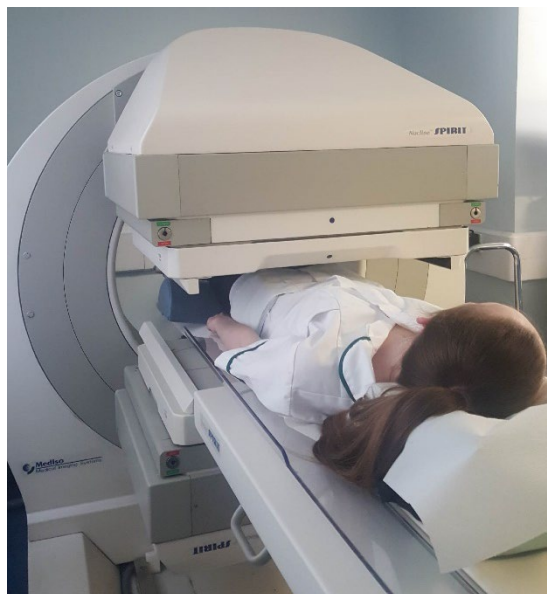
Your injection

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 will be performed at 1 hour, 4 hours and 24 hours after the injection. Rarely, we may also ask you to return after 48 hours for more images. You are free to leave the department for the period of time between the scans.

The scan is taken by a special machine called a gamma camera. You will not have to get undressed, but you will be asked to remove any metal objects like jewellery. You will be lying on your back and the camera will move very slowly from your head to your pelvis taking about 20 minutes. The same picture will be taken each time you return.



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 2022.

Next review due: January 2024

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
I-123 MIBG	2.5 mSv
UK average annual radiation dose	2.7 mSv
CT scan of the chest – CT scan of whole spine	6.6 mSv – 10 mSv