

Whole Body MIBI Myeloma Scan

Consumer Information

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What is a Whole Body MIBI Myeloma Scan?

A Whole Body MIBI Myeloma Scan is a nuclear medicine scan which involves the injection of a radioactive material or radioactive tracer called technetium-99m- Sestamibi, or MIBI for short. MIBI is injected into a vein, usually on the front of your arm near the level of your elbow or on the back of your hand, and is taken up by any myeloma cells in the body. Myeloma is a type of blood cancer that involves bones.

MIBI makes it possible to see any myeloma cells that may be present when scans (images or pictures) are taken using a special scanner called a gamma camera. A MIBI scan is used to diagnose myeloma and, if you are having treatment for myeloma, to assess how you are responding to treatment.

How do I prepare for a Whole Body MIBI Myeloma Scan?

There is no special preparation before arriving for your appointment and you may eat and drink normally before the scan. The radioactivity does not interact with food or any prescription medication you may be taking.

However, it is important that you let staff at the hospital or radiology practice where you are having the scan done know if you are (or think you could be) **pregnant** or are **breast feeding**.

This study may not be suitable for pregnant women because of the radiation dose to the growing foetus. Please discuss this with your doctor.

Women who are breastfeeding and people who are the primary or sole carer for small children may need to make special preparations for after the test, to stop breastfeeding for a short time, and to avoid close contact with young children. This is due to the small amount of radioactivity your body may release for a while after the test. Talk to your referring doctor or the nuclear medicine practice where you will have the test for details. The Australian Radiation Protection and Nuclear Safety Agency has [recommendations](#) about breastfeeding and close contact with children after nuclear medicine tests.

You will need to stop doing any vigorous physical activity on the day of your appointment, prior to having the scan. This is because increased muscle

activity will divert the radioactivity away from the bone marrow into the muscles and may make it difficult to detect any myeloma cells on the scan.

You will need to arrive at least 15 minutes before your actual scan time in order to rest before being given the MIBI injection. You will be advised about the time when you arrange your appointment.

What happens during a Whole Body MIBI Myeloma Scan?

MIBI myeloma scans are always performed in a nuclear medicine department of a hospital or at a private radiology practice. The scan requires you to rest for 10-15 minutes before the radioactive solution or tracer can be given.

MIBI will be injected and you will be required to lie on a bed. The gamma camera will move over you to take images or pictures. The camera will come quite close to you but will not touch you.

Are there any after effects of a Whole Body MIBI Myeloma Scan?

There are no after effects of a MIBI myeloma scan and you may drive yourself home if you are otherwise medically fit to do so.

On rare occasions you may experience a metallic taste, tingling, flushing, nausea, headache and skin rash. These effects do not last long.

If you are breastfeeding or caring for young children, see the "how do I prepare" section for more information about special precautions you may need to take.

How long does a Whole Body MIBI Myeloma Scan take?

You will need to rest for 10-15 minutes before having the radioactive tracer. The actual whole body scan may take around 30-45 minutes.

What are the risks of a Whole Body MIBI Myeloma Scan?

MIBI myeloma scanning does not normally carry risk. In a very small number of patients (1%) a rash or allergic reaction has occurred. These reactions are short-lived and respond to treatment.

It should be noted that, like many diagnostic imaging tests, a MIBI myeloma scan involves exposure to ionising radiation. This radiation dose is comparable to, and in many cases less than, the radiation doses received from other tests such as X-rays.

Your doctor has weighed up the benefit versus risk for you having such a procedure and decided that the benefit of having the information gained from the test outweighs any risk.

While radiation is a known carcinogen (a substance or agent that can cause cancer), the dose used for this test is relatively minor and as a result carries almost no risk in terms of increased incidence of cancer.

The dose received is equivalent to approximately the same amount of radiation all people get from the earth and atmosphere as natural exposure in one year (see *Radiation Risk of Medical Imaging for Adults and Children*)

What are the benefits of a Whole Body MIBI Myeloma Scan?

The scan will help your doctor assess the presence and extent of a type of blood cancer called multiple myeloma in your body.

The scan can also be used to monitor the response to any treatment you may be having, to see if the disease is improving or not.

Who does the Whole Body MIBI Myeloma Scan?

A nuclear medicine technologist will perform the MIBI myeloma scan. A nuclear medicine technologist has been trained in the preparation and administration of many types of radioactive tracers as well as the taking of images.

The nuclear medicine technologist will process your images and a nuclear medicine physician (a specialist doctor) will interpret the images and write a report to your doctor. The report will be sent to your doctor who requested the scan, who will discuss the results of the scan with you.

Where is a Whole Body MIBI Myeloma Scan done?

MIBI myeloma scans are performed in a nuclear medicine department of a hospital or a private radiology practice equipped and staffed to provide this service. Most major public hospitals and many private hospitals have nuclear medicine departments.

When can I expect the results of my Whole Body MIBI Myeloma Scan?

The time that it takes your doctor to receive a written report on the test or procedure you have had will vary, depending on:

- the urgency with which the result is needed
- the complexity of the examination
- whether more information is needed from your doctor before the examination can be interpreted by the radiologist
- whether you have had previous X-rays or other medical imaging that needs to be compared with this new test or procedure (this is commonly the case if you have a disease or condition that is being followed to assess your progress)
- how the report is conveyed from the practice or hospital to your doctor (in other words, email, fax or mail)

Please feel free to ask the private practice, clinic, or hospital where you are having your test or procedure when your doctor is likely to have the written report.

It is important that you discuss the results with the doctor who referred you, either in person or on the telephone, so that they can explain what the results mean for you.

Please note:

This information is of a general nature only and is not intended as a substitute for medical advice. It is designed to support, not replace, the relationship that exists between a patient and his/her doctor. It is recommended that any specific questions regarding your procedure be discussed with your family doctor or medical specialist

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