

Octreotide Scan

Consumer Information

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What is an Octreotide Scan?

Nuclear medicine uses radioactive materials to diagnose or treat diseases. An Octreotide Scan is one that uses radioactive material to detect certain types of cancers arising from the neuro-endocrine systems (this means cancers that relate to the interaction between the nervous system and hormones from the endocrine system – glands that produce hormones in the body). It shows where the cancer started (the primary site) and any places it has spread to (called metastases).

Liquid radioactive octreotide is injected into a vein, travels through the bloodstream and attaches to any cancer cells in the body. A radiation detecting device, a gamma camera, detects the radioactive octreotide and makes pictures showing where the cancer cells are.

How do I prepare for an Octreotide Scan?

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.

Sometimes you are required to stop taking certain medicines such as somatostatin or octreotide therapy prior to having the procedure. Please ask your doctor to explain what this entails in your situation and for specific instructions.

Drink plenty of fluids prior to and throughout this procedure and up to one day after having the procedure. This encourages the excretion of the radioactive tracer that is not absorbed and is also useful in obtaining better pictures.

What happens during an Octreotide Scan?

The procedure begins with an injection of a small amount of radioactive material into a vein in your arm. You will be asked to return in four hours for a scan of your whole body.

Upon your return, you will lie on a special table that allows pictures to be taken of your whole body. A camera will be positioned above and below your body which can take pictures at the same time.

The camera, which can detect radioactivity, will travel from your head to your toes, recording pictures as it goes. None of the equipment touches your body. This process takes about 40 minutes. It is very important that you stay still during the scan.

Next, a special set of pictures called SPECT scan, a three dimensional image, is taken. For this set of pictures, the camera will be set up to travel in a circle around your whole body. Sometimes a separate set of SPECT scans is made for the chest and the abdomen (stomach) area.

You will be asked to return the following day when the same set of images will be taken. You will not receive another injection for these images.

Later, after you have left the hospital or radiology practice, the technologist will work with the pictures to create three dimensional images.

Are there any after effects of an Octreotide Scan?

The amount of radioactivity you receive is very small. There are no after effects from having an Octreotide Scan.

You will need to drink plenty of fluids prior to and throughout this procedure, and up to one day after having the procedure to encourage the excretion of any radioactive tracer that has not been absorbed.

However, 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 an Octreotide Scan take?

An Octreotide Scan consists of 3 sessions:

- The first session on the first morning can take up to 1 hour.
 - A nuclear medicine technologist will prepare the radioactive octreotide material when you arrive. This takes just over 30 minutes. The technologist and nuclear medicine consultant will discuss the scanning procedure with you.
 - You will have a small plastic needle inserted into your arm so the radioactive octreotide can be injected into your blood stream and be absorbed into your body.

- You are required to return to the nuclear medicine department 4 hours later for the second session to take the first images/pictures of your whole body. This can take from 1 to 2½ hours, depending on the number of images that are required.
- The third session occurs the following day. You will be given a time to return the next morning for the same images of your whole body as well as more SPECT, three dimensional, image(s) of your body. This session will also take from 1 to 2½ hours to complete but you do not have another injection.

A small number of people may be asked to return for a fourth session on the third day to have a limited number of images/pictures taken. However, this is rare.

What are the risks of an Octreotide Scan?

The amount of radioactive material injected into your body is quite small, it has no effect on how you feel and the amount of radiation exposure is quite safe and should not result in any short or long term hazardous effects (see *Radiation Risk of Medical Imaging for Adults and Children*).

What are the benefits of an Octreotide Scan?

An Octreotide Scan can find a primary tumour (cancer cell) and detect whether this has spread to other parts of the body.

The scan can also show the response to any therapy or treatment you are having. This shows if the disease is clearing or progressing.

Who does the Octreotide Scan?

A nuclear medicine technologist prepares the octreotide material which is injected into a vein in your arm.

The nuclear medicine technologist or nuclear medicine doctor will insert a small cannula (a thin plastic tube or drip) into your arm to administer the radioactive octreotide.

The nuclear medicine doctor may ask you a few questions before or after the scan to obtain a thorough history about your condition to enable them to read and diagnose your images.

The nuclear medicine technologist is the person who performs the scan and processes all the images for the doctor. After each session the technologist checks all the images with the nuclear medicine doctor and, depending on what the images show, the doctor may request extra pictures to be taken. This helps the doctor to interpret the images more thoroughly. The doctor will prepare a report for your referring doctor about your scan.

Where is an Octreotide Scan done?

An Octreotide Scan can only be performed in a nuclear medicine department of a hospital or a private radiology practice equipped to provide this service.

When can I expect the results of my Octreotide 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 t

Further information about Octreotide Scan:

It is important if you have had any previous X-rays or scans to bring them along, as this may help with the interpretation of your Octreotide Scan.

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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