

Department of Diagnostic Radiology

Patient Information Leaflet: Radio-Iodine Treatment

This is a resource intensive, specialised scan so it is very important to confirm your appointment or let us know at least 48 hours prior to the scan if you are unable to keep this appointment.

Please allow 30 minutes for this procedure from start to finish.

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Author: Wye Valley NHS Trust Date: June 2024

Review: June 2026

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What is a Nuclear Medicine Radio-Iodine treatment?

Radioiodine treatment uses a radioactive iodine to cure Hyperthyroidism. The radioactivity in the capsule given you destroys the overactive thyroid tissues and slows down the production of thyroxine.

What preparation do I need?

You may eat and drink as normal prior to the test, but there are medication considerations:

If you are taking any of the following medications:

- Carbimazole You must stop taking this 7 DAYS before the radioiodine treatment; otherwise the treatment does not work properly.
- Propylthiouracil You must stop taking this 14 DAYS before the radioiodine treatment; otherwise the treatment does not work properly.
- Please let us know if you have had an x-ray, CT or MRI which may have used contrast agent prior to your treatment.
- Please tell us prior to attending the appointment if you have difficulty swallowing.

The Endocrinologist referring you will have already gone through radiation safety guidance and have consented you for the procedure.

What does the procedure involve?

We will explain the procedure and ask you a series of questions to ensure that you understand the information given and that you can safety abide by the radiation safety guidance at home and at work following the procedure.

You will also be given written information and a leaflet with radiation safety requirements for you to follow for 24 days, this must be followed.

We can answer any questions you may have about the treatment, once all of these steps have been carried out we will administer the radio-iodine in the form of a capsule to swallow with a drink of water. You will then be asked to sit in our waiting area for about 20 minutes, after this we will use a radiation detector to measure your throat and abdomen, this is done with you standing. You do not need to undress for the scan. This will take about 2 minutes.

You must go directly home after the procedure, and you must not use public transport to go home

Is there anything I should tell the staff?

Please telephone us on the number in the appointment letter if any of the below applies to you:

- You must not have radioiodine if you are pregnant, think you might be pregnant, intend to get pregnant in the next 12 months or father a child within the next 4 months. Also tell us if you are breastfeeding. Individuals who breastfeed are advised to follow guidance available on NHS website at Breastfeeding.
- If you have difficulty moving from a chair to a bed, please let us know before you arrive so arrangements can be made.
- If you have a Carer or if you are a Carer or if you reside in a care home.
- If you have any other medical or dental appointments in the 30 days following the scan.
- If you are intending to travel through ports or airports, as some security devices at these locations are so sensitive that they may detect extremely low levels of radioiodine, even after the restriction dates have passed.

What happens after the examination?

There are precautions which you must take after having radioiodine treatment. These are to avoid any unnecessary radiation exposure to your family members and general public. Included with this information sheet is the advice leaflet we will be giving you on the day. Please read it prior to your appointment, so that if there are any issues we can offer advice before the appointment day.

The advice leaflet will also tell you when to re-start your thyroid medication if necessary.

How long will the Radioiodine stay in my body?

Most of the radioiodine is taken up by the thyroid gland. The rest is passed in the urine over the next few days and we would like you to drink plenty of fluid for 3 days after your treatment and frequently empty your bladder. A small amount of radioiodine will leave the body in the form of saliva and sweat. Please see leaflet for restrictions that will apply to you.

How will I feel after the treatment?

The radioiodine capsule does not cause any nausea or vomiting.

You may experience a sore throat, which may persist for several days. This will resolve on its own.

Is it safe?

It is important that you are aware that you will receive a small dose of radiation as part of your Nuclear Medicine diagnostic procedure. The dose given to you is as per the guidelines provided by national regulations and is set to the level needed for effective diagnosis or treatment. We aim to keep your dose as low as possible, without compromising the diagnostic quality of your images.

What is Diagnostic Nuclear Medicine procedure?

Diagnostic Nuclear Medicine procedure involves injecting a small amount of radioactive material into your body through a vein in your arm or hand or sometimes this will be administered by ingestion. This radiation can then be detected by a gamma camera to give information on organ function/physiology. There will be a low level of radiation present in your body for several hours after the injection. The radiation may be excreted from your body in urine, saliva and sweat.

What is Radiation?

Radiation is a normal part of our everyday lives. This is called natural background radiation. Natural background radiation comes from the ground and building materials around us, the food that we eat and outer space (cosmic radiation). The average UK natural background dose is around 2.7 units (the unit being millisievert, mSv) per year (this varies across the country from 1.5 to 7.5 units per year).

What are the benefits?

Your doctor has deemed the procedure to be necessary to obtain a clinical diagnosis after carefully considering the risk vs benefit. The use of radiation in medicine has brought immeasurable benefits in the diagnosis and treatment of disease.

If you have any concerns about undergoing a scan involving exposure to radiation, please discuss the risks and benefits with your referring doctor.

What are the risks?

Nuclear Medicine procedures are among the safest diagnostic imaging tests available. The amount of radiation in a Nuclear Medicine procedure is comparable to that from an x-ray procedure. The typical radiation dose is one to two times the annual natural background radiation levels in the UK. Any radiation dose, from any source, carries a small risk.

The current best estimate is that the increase in the risk of developing a cancer is no more than 0.005% (1 in 20000) for every unit of radiation dose received. Each medical examination involving radiation gives a small additional dose on top of this natural background radiation.

For comparison, the natural risk of developing cancer is around 50% (1 in 2), so the total risk for a person receiving an additional radiation dose of 1 unit is 50.005%. As can be seen, the additional risk is very small. For more information on the risks of exposure to radiation please refer to the <u>public health England website</u>.

For more information about Nuclear Medicine scans please refer to the information available on Patient info <u>Radio Nucleotide scan website</u>.

Having Carers and Comforters during the scan.

If you need someone to help during the procedure i.e. with mobility etc., or need to be cared for by a family member or friend post examination, they may receive a small dose of radiation that presents a very small risk to them. The Radiographer will ensure that this risk is as low as possible and will provide information on how to ensure this dose is kept as low as reasonably practical after the procedure.

It is important that they are informed of the risk they may face by being involved during your examination and post examination, there is a separate sheet attached with information for them and a consent for to sign. If they would like more information they can contact us on the number on the appointment letter.

Contact Us

Please refer to the appointment letter. If you require the information in paper format please contact the Radiology Department on the number provided on the letter.

How to provide feedback

Our aim is to provide a quality of care we would want for ourselves, our families and friends. If there was anything that we could have done please let us know via the department/ward staff or the patient experience team available on 01432 372986 or email <u>PALs@wvt.nhs.uk</u> (opening times may vary).

This leaflet is available in large print, Braille, Audio tape or other languages upon request. Please contact patient experience team on the above telephone number.

You may be asked to give your opinion on the service you have received. We welcome your feedback as this will help us to improve the care and treatment we provide to our patients.

Wye Valley NHS Trust website

Telephone 01432 355444