Department of Diagnostic Radiology

Patient Information Leaflet: Thyroid Scan

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.

The investigation is carried out in stages. Please allow 1.5 hours for the investigation from start to finish.

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What is a Nuclear Medicine Thyroid Scan?

A Nuclear Medicine Thyroid Scan is done to show the function and structure of your Thyroid gland.

What preparation do I need?

You may eat and drink as normal prior to the test.

If you are taking any of the following medication: Carbimazole, Propylthiouracil or Thyroxine please contact us as soon as possible before your appointment as these drugs will interfere with the scan and give poor results. You will need to STOP taking them for 5 days before the scan.

What does the procedure involve?

The procedure will be explained to you on arrival. You will be cannulated, usually into the vein in your arm or the back of your hand.

After this we need to wait for 20 minutes to allow for uptake of the injection into the thyroid. During this time we will ask you to have a drink to help clear the isotope from your salivary glands.

After about 15 minutes we will take a series of pictures using a special camera. For this you will need to lie down on a bed with the camera positioned over your neck. You do not need to undress for the scan.

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:

- If you are pregnant or if you think you might be pregnant. Tell us this BEFORE you have your injection. Also tell us if you are breastfeeding. Individuals who chestfeed are advised to follow guidance available on the NHS website.
- 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 48 hours following the scan.

What happens after the examination?

You can continue as normal but you will be emitting a small amount of radiation for 24 hours post injection. Please avoid close contact with children and pregnant women for 24 hours post procedure. Close contact means having a child or pregnant woman sitting next to you for more than 30 minutes. This is to avoid these individuals being exposed to unnecessary radiation.

Lactating mothers are advised to express at least one feed and appropriately store it in advance of the administration. Completely express and discard the first feed after the injection and to not breast feed for 4 hours post injection. They are also advised to avoid prolonged contact with their infant for the 12 hour period post injection as this will reduce the infant's exposure to the small amounts of radiation.

A report is sent to the doctor who requested the scan within two weeks, the doctor will send a letter with a follow-up appointment or the results of the test.

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 Public Health England website.

For more information about Nuclear Medicine scans please refer to the information available on patient information Radio Nucleotide scan website.

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 PALs@wvt.nhs.uk (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