Patient having a thyroid scan.

Is there a radiation risk?

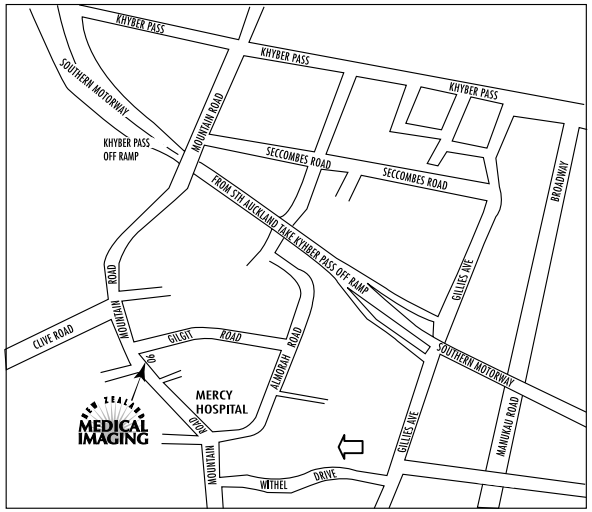
Any radiation risk from a scintigraphy scan is very, very small. With a thyroid scan for example the radiation exposure is less than a chest CT x-ray.
The injected radiopharmaceutical is almost entirely eliminated from the body within 24 hours, mostly in the urine.

Assessment of possible health affects has shown that the benefits from medical radiation exposure far outweigh any risks. X-ray and scintigraphy procedures are only performed when there will be a net benefit to the patient and there is no reasonable alternative.

Appointment :

Date: _____

Time: _____



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Other NZMI information brochures available:

- Breast Scanning
- Heart Scanning
- Kidney Scanning
- Lymph Node Scanning
- Hepatobiliary

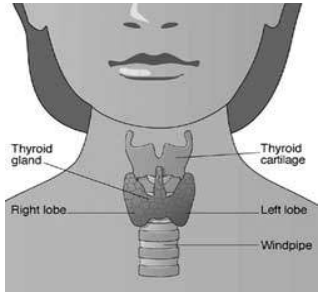
Thyroid

NEW ZEALAND MEDICAL IMAGING
A Syncor Company

SCINTIGRAPHY THYROID SCAN

The thyroid is a butterfly shaped gland which wraps around the front part of the windpipe just below the Adam's apple. It produces hormones that regulate the body's metabolism and organ function. Thyroid hormone influences essentially every organ, every tissue and every cell in the body.

A Nuclear Medicine scintigraphy thyroid scan is a simple and easy way to see the size and function of the thyroid gland.



Hypothyroidism results when the thyroid fails to produce enough hormone.
Hyperthyroidism, occurs when the thyroid produces more thyroid hormone than is needed.
If properly treated, patients with thyroid disorders lead normal, active lives. When left untreated, however, thyroid disorders can affect the patient's cardiovascular system, reproductive system and other major organs.

Common reasons for a Thyroid Scan:

- Evaluation of thyroid lumps known as nodules.
- Evaluation of hyperthyroidism and thyroiditis
- Quantification of thyroid function as thyroid uptake.
- Screening of patients with suspected thyroid cancer.

Scan Procedure:
A thyroid scan is an easy procedure that takes about 30 minutes.
You are required to lie back on a scanning bed with the Gamma camera positioned quite close over you neck and chest.

The technologist will administer a small injection into a vein (IV) in your arm. This injection contains a tiny amount of the radioactive isotope 99m Technetium in saline (99mTc04-).

The technologist will then acquire images straight after the injection and for the following 20 minutes.

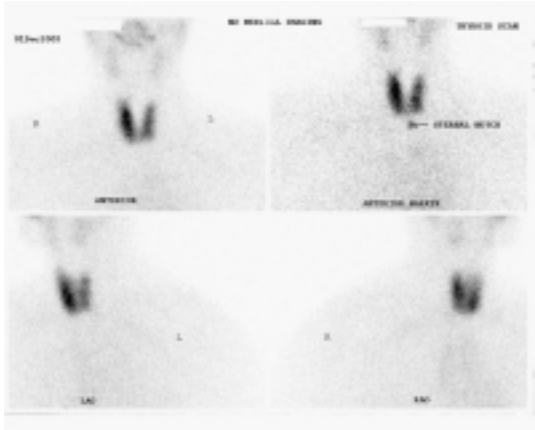
What's in the Injection?
The injection is of about 0.5mL of a saline solution containing a tiny amount of the radioactive isotope 99m-Technetium (99mTc04-).
Technetium is taken up by the thyroid gland in a similar manner to iodine but it does not contain any iodine.
99mTc does not stay radioactive for very long, it has a radioactive decay half-life of six hours.
There are no side effects or any ongoing sensations associated with this injection or scan.

Scan Preparation:
Normally there is no preparation for this scan. If however you are on the thyroid medicine **Thyroxine** you will be required to stop this 4-6 weeks before the scan. Discuss this with your doctor before the scan.

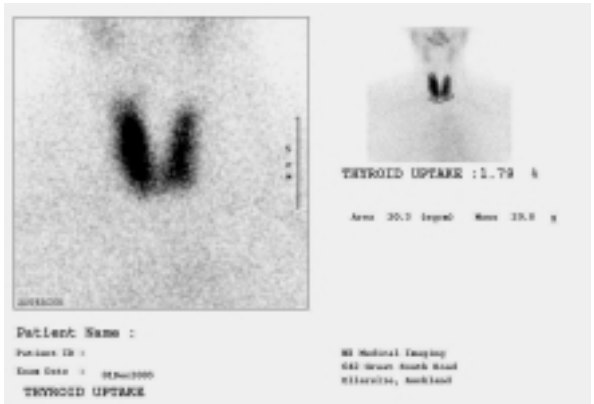
Before and after the scan you are able to eat and drink, drive and proceed as normal.

If you are pregnant, suspect you may be or are a nursing mother, discuss this with your doctor before undergoing this test.

Scan Results:
Once the scan images and associated data have been recorded the technologist is then able to produce images that show the appearance and position of the thyroid.



It is also possible to calculate the size of the thyroid and the percentage uptake of the 99mTc04- injection by the thyroid.



Your doctor would normally get the results within one or two days after the scan.