

Scintigraphy is an imaging technique used to evaluate the metabolic processes in the tissues and lesions of the human body. A small amount of radiolabelled substance involved in the metabolism is injected into the patient's body to obtain an image. In the present case, it is a technetium-99m-labelled substance that accumulates in the parathyroid gland and thyroid gland.

Simultaneously, computed tomography (CT) is performed – with or without intravenous administration of contrast agent, as appropriate.

**The test is used** to determine the causes of hyperparathyroidism.

**Inform medical staff about conditions that need special attention:**

- claustrophobia (fear of small or closed spaces);
- pregnancy; breastfeeding: you will receive guidance when to resume breastfeeding;
- you are unable to lie still.

**Preparation for the test:**

- the use of iodinated contrast agents should be avoided within three months before the procedure;
- stop the use of methimazole, propylthiouracil and vitamin D one week before the test;
- for other medications, such as calcimimetics, L-thyroxin, antidepressants, etc., individual instructions will be given to you.

**The procedure**

The duration of the procedure, including preparation, is about 4 hours. Before the test, a nurse will provide a detailed explanation of the procedure and inject a tracer (99mTc-sestamibi). After the tracer has been injected, you should wait 15–20 minutes for the tracer to accumulate. After that, the first recording will be performed, which lasts up to 15 minutes.

The second recording will be performed in 1–2 hours and it will last a maximum of 1 hour. After the second recording, another tracer (99mTc-pertechnetate) will be injected into the vein. After 15 minutes, a third recording will be performed.

During the recording, you will be asked to lie on your back on the examination table.

**After the study:**

- follow your normal diet and drink plenty of fluids to foster removal of excessive tracer from the body;
- breastfeeding should usually be discontinued for 24 hours; removed breast milk should be discarded. Detailed instructions will be given to you by the personnel in the department;
- on the study day try to avoid close (less than 1 metre) and long lasting (over quarter an hour) contact with children and pregnant women;
- study results will be sent to referring physician within a week. If you have a doctor's appointment on the same day or the following day, please inform the study personnel.

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