

Positron emission tomography (PET) 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 metabolism will be injected into the patient's body to obtain an image. In the present case, it is a radioactive fluorine-labelled substance that binds to PSMA (prostate-specific membrane antigen).

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

The test is indicated for the diagnosis of prostate cancer and some other malignancies.

Inform medical staff about conditions that need special attention:

- allergy (e.g. to contrast agent etc.);
- 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:

- there are no dietary or lifestyle restrictions associated with the procedure. Drink more fluids than usual;
- on the day of test, take your medications as prescribed by the treating physician.

The procedure

The duration of the procedure, including preparation, is about 3–4 hours. Before the test, a nurse will speak to you, insert an intravenous cannula and inject a radioactive tracer. After the tracer has been injected, you should wait 2 hours until it has accumulated in possible lesions. After that, a PET/CT scan will be performed, which lasts up to 40 minutes. During the test, you will be asked to lie still to ensure a high-quality result.

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;
- if administration of medications becomes necessary during the test, the medical staff will provide further guidance as to the potential effects of the medication on the reaction rate, etc;
- 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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