

PET/CT IMAGING WITH 18F-FLUTEMETAMOL

Positron-emission tomography (**PET**) is a nuclear medicine functional imaging technique that is used to observe metabolic processes in the body as an aid to the diagnosis of disease. A small amount of radiolabelled substance will be injected into the patient to obtain an image. In the present case, it is a radioactive fluorine-labelled substance that binds to beta-amyloid plaques in the brain.

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

The test is used to detect amyloid deposition in the brain.

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 total duration of the test 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 1.5 hours until it has accumulated in possible lesions. After that, a PET/CT scan will be performed, which lasts up to 30 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 eccessive 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 houre) contact with children and pregnant women;
- if any medicines have been administered at the time of the study, you will receive further instructions from personnell;
- 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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