

The Examination

In cardiology, positron emission tomography (PET) combined with computed tomography (CT) acquisition using 18F-FDG (Fluorodeoxyglucose) as a tracer is a non-invasive examination technique used for the detection and evaluation of sites of infection and/or inflammation, as well as myocardial viability. This examination is conducted to determine a diagnosis, direct therapy, and track the patient's reaction to treatment.

Substances Used

¹⁸F-FDG (fluorodeoxyglucose-18 fluorine)

Side Effects

The substance used has no known side effects. It is crucial to eat something before leaving the hospital, as the extended fasting period can increase the risk of hypoglycemia. It is also advised to maintain adequate hydration throughout the day to facilitate the elimination of the radiotracer.

Preparation

The type of test being administered will determine whether any specific preparations are necessary. Adhering rigorously to these instructions is crucial.

A minimum of 6 hours of fasting is necessary. You are permitted to drink water anytime.

In certain circumstances, a 14-hour fasting period and a specific low-carbohydrate diet, initiated 48 hours prior to the test, might be necessary. The validity of the examination depends on strict adherence to the preparation.

➤ **If you suffer from claustrophobia, please let us know.**

Medication

Carefully follow the instructions you were given to prepare. In some cases, you will be instructed not to take your morning hypoglycemic medication.

Duration of the Examination

The length of a PET/CT scan will depend on the specific examination ordered by your physician. An average of two to two and a half hours is needed to complete the exam. Some tests might require more time. After taking images, it is common to have a waiting time and to take a second image.

Procedure

Upon your arrival, the technologist will have you change into a gown. You will be escorted to a room where you will complete a questionnaire to ensure you meet the prerequisites and to identify any potential obstacles to the examination. To help the nuclear medicine expert interpret the images, the technician will ask you a few questions to gather your medical background information. We will conduct a review of your current medications.

Afterwards, a technician will place a catheter into a vein in your arm. The catheter serves a dual purpose: measuring blood sugar levels and administering the radiotracer (18 F-FDG). You may have to drink a contrast substance.

After receiving the radiotracer injection, patients can undergo imaging procedures between 40 and 120 minutes later. During the interval, you can relax and lie down.

The imaging process will last approximately 30 minutes, during which you will be lying on a stretcher. A technologist will be nearby throughout the entire examination. After completing the baseline images, the technologist will have a specialist physician validate them. In certain cases, additional images can enhance the diagnostic process.

Once you have been discharged, we strongly recommend that you eat on site before leaving the facility. This will help you avoid any risk of hypoglycemia. It is recommended to drink and urinate frequently until the end of the day to accelerate the elimination of the radiotracer.

Other information

At any time, either before, during or after the exam, you can ask questions to the technologists conducting your examination.

At doses of radiation (< 100 mSv), there is no evidence of cancer or any other illness.

The kidneys will primarily remove the low dose of the radiopharmaceutical. Therefore, it is important that you remain well hydrated for the next 24 hours, unless your doctor advises otherwise.

Our Nuclear Medicine Department utilizes advanced hybrid equipment, which includes a Positron Camera that captures the emissions of the injected radiopharmaceutical, coupled with a Computed Tomography Scanner. During this assessment, you will also receive a low dose of X-rays.

For more information on radiation, please refer to the brochure "Information on Ionizing Radiation", which is available in the waiting room of our imaging department.

Key Points

- To ensure a smooth and efficient service during your appointment, we kindly request that you bring a current list of your medications with you.
- If you are a woman, before undergoing a nuclear medicine examination, you must inform us if you are pregnant or breastfeeding.
- Following a nuclear medicine examination, you can resume your regular activities as usual.
- If you are planning to travel abroad soon, be sure to notify the technologist to obtain the required documentation. Customs officials could potentially detect the injected radiopharmaceutical.
- If you are unable to take your examination, please inform us promptly by calling 514-376-3330, extension 3214.

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► Positron Emission Tomography
PET/CT

