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PET/CT scan

Positron emission tomography (PET) with computed tomography (CT) – an effective and modern diagnostic imaging technique.

18F-FDG PET-CT scan

The purpose of an FDG PET-CT scan is to assess glucose metabolism in the body to detect tumours and inflammatory processes. The PET-CT scan is commonly used to diagnose and evaluate the spread and treatment response of oncological diseases.

It takes 2.5-3 hours to prepare for and perform an 18F-FDG PET-CT scan. Before the scan, your blood glucose levels will be checked. Do not eat for at least six hours prior to your scan and refrain from strenuous physical activity (i.e. gymnastics). You may only drink water or liquids that do not contain sugar. Avoid caffeine, nicotine and alcohol for at least 24 hours before the scan.

To perform the scan, you will be injected intravenously with fluorodeoxyglucose (FDG) labelled with radioactive fluorine (18F), which accumulates significantly more in organs and tissues with increased consumption of glucose.

After the 18F-FDG injection, you will be asked to rest for 60 minutes in the treatment or waiting room of the Centre of Nuclear Medicine. During this time, you must sit/lie still. It is important that you do not walk, talk or read. During the waiting period, you must drink at least 1 litre of water. Right before the scan, you will be asked to empty your bladder. You will then be escorted to the scan room.

You may leave the Centre of Nuclear Medicine as soon as the scan is complete. On this day, prolonged (over two hours) close contact (closer than two metres) with small children and pregnant women must be avoided. It is recommended that you drink 1.5-2 litres of water and urinate frequently for faster elimination of 18F-FDG residue.

Your doctor will refer you for the 18F-FDG PET-CT scan (positron emission tomography-computed tomography with fluorodeoxyglucose).

For more information about the scan, see patient information.

18F-PSMA PET-CT scan

18F-PSMA PET-CT scan 18F-PSMA PET-CT scans are used to detect prostate cancer and determine whether it has spread to other parts of the body.

PSMA or prostate-specific membrane antigen is a protein found on the surface of prostate cells. The scan uses a substance labelled with radioactive fluorine (18F), which binds to the PSMA on cancer cells. 18F allows the location of the PSMA to be visualised by PET-CT.

No specific preparation (fasting etc.) is required for the scan. However, it is recommended that you drink plenty of fluids (0.5-1 L) to be well hydrated prior to the scan.

A PSMA PET scan takes about 3-4 hours.

After the tracer has been injected, you should wait 2 hours until it has accumulated in possible lesions. During this time, you will be asked to drink 0.5-1 L water. You will be asked to stay in a waiting room where no accompanying persons are allowed. Right before the scan, you will be asked to empty your bladder. The scan lasts up to 40 minutes. You will be asked to lie still on your back on the examination table to ensure a high-quality result.

You may leave the Centre of Nuclear Medicine as soon as the scan is complete. On this day, prolonged (over two hours) close contact (closer than two metres) with small children and pregnant women must be avoided. It is recommended that you drink 1.5-2 litres of water and urinate frequently for faster elimination of the residue.

Your doctor will refer you for the 18F-PSMA PET-CT scan (positron emission tomography-computed tomography with fluorine-18 labelled prostate-specific membrane antigen).

For more information about the scan, see patient information.