



**Royal Hospital
Nuclear Medicine Department**

**Positron Emission Tomography /
Computed Tomography
(PET/CT) Scan**

Patient Information Sheet

What is PET/CT imaging?

It is the combination of two types of imaging, Positron emission tomography (PET) and computed tomography (CT). By combining these two scanning technologies, a PET/CT scan enables physicians to more accurately diagnose and identify cancer, heart disease, infection and brain disorders.

A PET scan looks at the biological function of the body before anatomical changes take place, while the CT scan provides information about the body's anatomy such as size, shape and location.

How PET/CT works?

An injection of a small amount of radioactive glucose called FDG will be injected into a vein in your arm. Because cancer cells in the body are growing rapidly, they absorb large amounts of the radioactive glucose, which show up as "hot" spots on your scan. A CT scan shows organs and other body structures. It is used to pinpoint the location, size and shape of the abnormal area. Together, PET and CT provide a complete picture of any suspected disease.

What is involved in the test?

- You would be given a dress to change and your height, weight, blood sugar will be recorded.
- An intravenous cannula will be placed in your hand or arm.
- A small amount of radioactive glucose (FDG) will be given through the cannula.

- During this time you will be in a private room and you will be asked to drink water with contrast and to avoid talking for around 60 minutes.
- You will be asked to empty your bladder before the start of the scan. Then you will lie down on the scanner bed. Images will be taken of your body as you lie still.
- A scan takes approximately 30 minutes to complete.

What happens after the exam?

- There are no known side effects from this test.
- You may resume your normal activities once the examination is complete. To be extra safe, wait a few hours before getting too close to an infant or pregnant woman.
- Please drink extra fluids throughout the day to help rinse the radioactive substance from your body.
- Your PET-CT scan is read by our Nuclear Medicine Physicians. We will finalize the report and dispatch in the system to your treating physician.

Preparations

- Please bring all relevant documents and previous imaging CDs for comparison if needed (if done outside the Royal Hospital).
- Plan on being at the Molecular Imaging Center for about 3 hours.
- Bring a list of any medications you are currently taking.

The day before the exam:

- Follow a high protein, high lipids and low carbohydrate diet plan for 12 hours prior to your exam.
- Drink extra plain fluids, unless your doctor tells you otherwise.
- Avoid any strenuous physical activity for 24 hours prior to the appointment.

On the day of exam:

- You need to be fasting and avoid chewing gum for at least 6 hours prior to



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your appointment (only water is allowed).

- If you are on tube feedings, continue feeding until 6 hours prior to your appointment. You may still have water.
- To keep hydrated, drink 1-2 glasses of water prior to arriving for your appointment.
- You may take your regularly scheduled medications with water.

If diabetic, see the instructions for diabetic patients.

- Wear warm comfortable, loose fitting clothing with minimal metal and avoid wearing jewelry.

Instructions to diabetic patients

- On the day of the scan take a light breakfast 4 hours prior to your given appointment. Then take your medications; insulin or diabetic pills as prescribed by your physician.
- Generally, your blood sugar level should be 10 mmol/l or below, before your PET/CT scan. Consult your treating physician to determine the safest way to manage your blood sugar level before your scan.
- Your blood sugar level will be tested before the scan. Please make sure our staff knows you are diabetic.

For in patients:

- Patients should be fasting 6 hours before the test and avoid IV dextrose or total parenteral nutrition (TPN).
- If diabetic, then to follow the instructions for the diabetic patients given earlier in this leaflet.

For female patient:

- If you are pregnant, please tell the technologist before you are injected with the radioactive substance.
- Please consult your technologist if you are breastfeeding for further instructions.

For attendants:

Due to the radioactive substance used pregnant women and children younger than 18 are not allowed to accompany the patient in the uptake rooms.

How safe is a PET/CT scan?

The overall risks associated with a PET-CT scan are minimal. The radioactive substance degrades quickly so that no detectable radioactivity is present after several hours.

Rescheduling:

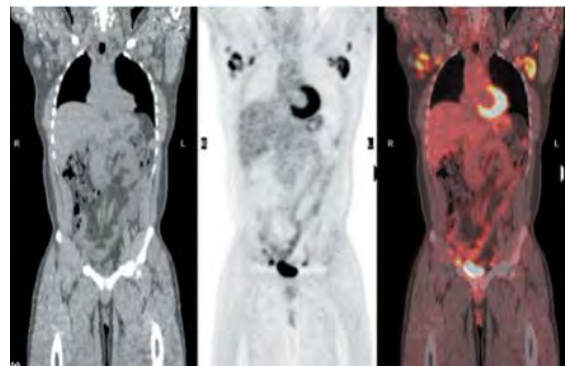
Please contact us at least 24 hours prior to your scan if you need to reschedule.

Your **PET/ CT** Scan has been scheduled
for _____ at _____

If you have any questions or concerns about the test, or if you need to cancel or reschedule your appointment, please contact the **Molecular Imaging Centre** at **24224015**

Molecular Imaging Centre is located in
Bowsher opposite to the Royal hospital.

Please check in with PET/CT reception **15**
minutes before your appointment.



CT image

PET image

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