

¹⁸F-FDG PET CT Scan

Your doctor has recommended that you have a ¹⁸F-FDG PET CT scan. This document explains the procedure and aims to answer the main questions you are likely to have. If you have any additional questions then please feel free to talk about them with your doctor or one of the nuclear medicine staff before the procedure.

What is PET CT?

There are two parts to this type of examination, both performed at the same time on the same scanner; a PET (positron emission tomography) scan and a CT (computed tomography) scan. Each shows very different information, but they complement each other. The PET scan shows areas with increased metabolic activity, while the CT scan shows detailed anatomy. A combination of these two images together enables a doctor to tell whether a region with high metabolic activity is significant, and if so, to state where it is in the body. Often a PET CT scan is repeated to monitor the effect of treatment of a particular disease.

In order to perform the PET scan an injection of a radioactive material (isotope) is given to the patient. This isotope accumulates in areas of metabolic activity, and is imaged by the PET scanner.

What is ¹⁸F-FDG?

¹⁸F-FDG is the type of isotope used for the injection. The injection has a glucose (sugar) base and the radioactive part disappears fairly quickly. There are different isotopes used for different types of disease and this is assessed by your doctor when recommending a PET CT scan as to which one is more suitable for your condition.

What are the alternatives?

Alternative imaging procedures may include ultrasound, a CT scan on its own, X-ray or magnetic resonance imaging (MRI) scan. Other ways of looking inside the body include endoscopy or surgery. Your doctor will explain the benefits and risks of having a PET CT scan, and talk to you about your options.

Preparing for the procedure

It is very important to have followed the correct preparation for your scan, otherwise it could result in the scan being postponed or cancelled, and the injection being wasted. If you are not sure what to do please ask the nuclear medicine staff.

You will have to fast for a number of hours before the scan, as this facilitates the process of tracer absorption within the body. Fasting means NO food, but you may drink water only during this time. For patients with diabetes, where possible, a late morning appointment is given, as you will need to have had a light breakfast with your medication, and fasted for 4 hours before your appointment. For patients without diabetes, or diet controlled diabetes, you need to have fasted 6 hours before your appointment.

At the time of the scan you will be asked to remove any outer items of clothing and change into a gown. You may also need to take off jewellery and empty your bladder. You must tell us if you are,

or could be, pregnant or if you are breast feeding. Pregnant women are advised not to have PET CT scans as there is a risk the radiation may affect the development of the unborn baby.

About the procedure

The procedure will be carried out by a nuclear medicine technologist (a healthcare professional trained to handle isotopes). Following the injection you will be asked to rest quietly in your own individual room. Relatives and friends will be asked to wait in the waiting area just outside PET CT. The whole procedure can take up to 2 hours, with the actual scan time taking 30-40 minutes. Please let the technologist know if you are not comfortable before the scanning starts to ensure you are able to lie completely still while the images are taken. The open design of the scanner and the shorter scan time are particularly beneficial for patients who may have claustrophobia.

Due to the high specification of our PET CT scanner we are also able to use the CT component to provide an excellent CT imaging service in its own right. If your doctor wants both a PET CT and a diagnostic CT scan both examinations can be performed on the same equipment one after the other.

What to expect afterwards

The technologist will tell you if there are any special instructions you need to follow after the procedure. In most cases you will be able to leave the hospital straight away, and have something to eat. The isotope loses its radioactivity over time and will pass naturally out of your body fairly quickly. You should drink plenty of liquid and go to the toilet often, as this helps pass the isotope out of your body. The amount of radiation in your body after the scan will be very small and there is little or no risk of you contaminating another person. If you have any concerns about exposure to radiation please discuss this with one of our team.

Getting the results

A report will be sent to the doctor requesting your scan, which is available the next working day. Your doctor will be able to discuss the results with you at your next appointment.

Contact

If you have any questions or need further information, please contact the nuclear medicine staff on +44 (0)20 7460 5541 or fax +44 (0)20 7835 2403 Monday to Friday between 9:00am and 5:30pm. Alternatively, you can contact the radiology reception on +44 (0)20 7460 5746/7.

Bupa Cromwell Hospital
162 – 174 Cromwell Road
London SW5 0TU
+44 (0)20 7460 2000 (hospital switchboard)
info@cromwellhospital.com
bupacromwellhospital.com

Published: April 2014
Review: April 2016

This information is published by Bupa Cromwell Hospital and is based on reputable sources of medical evidence and experience from over 30 years of treating patients. It has been peer reviewed by Bupa Cromwell Hospital doctors. The content is intended for general information only and does not replace the need for personal advice from a qualified health professional. If you have any feedback on the content of this patient information document please email info@cromwellhospital.com or telephone 020 7460 5901.