

What is a PET scan?

PET stands for Positron Emission Tomography. It is a test that uses special imaging cameras and a radioactive form of sugar to produce pictures that reveal information about the function and metabolic activity of cells in the body. This test allows for early detection of biochemical markers of disease.

A CT scan is also performed and this provides accurate anatomical localisation of the disease.

A PET scan merges both technologies into a single exam. It provides a picture of activity (function) superimposed over the body's anatomy. The individual scans are taken concurrently and can be presented separately or as an overlapping or "fused" image.

PET significantly impacts on patient management due to improved diagnosis, staging and monitoring of therapy including early detection of recurrent disease.

What is the preparation for the scan?

- **Food:** You need to fast for six (6) hours prior to the test - no food of any kind, no sweets, no fluids other than water.
- **Drink:** Keep hydrated - please drink 3-4 glasses of water prior to arriving for your test. Please don't drink anything other than plain water. You can go to the toilet as needed.
- **Medications:** You may take your normal non-diabetic medications with water. Please take your pain medication as you normally would AND bring it with you.
- **Diabetic Patients (Not on Insulin)**
 - Please fast from midnight. No breakfast on the morning of the appointment and continue taking medications as per normal if you can take these on an empty stomach.
- **Diabetic Patients (On Insulin):** Please have a light breakfast at 6am and normal insulin (both short and long acting insulin) as per usual then fast prior to the appointment.
- **Exercise:** Please take a break from your exercise routine and do not perform any exercises for 24 hours prior to the test.
- **Clothing:** Please wear warm, loose clothing with easy access to your arms for the injection. No metal parts such as zippers, large metal buttons, buckles, underwire bras, otherwise you will need to change into a hospital gown. Please leave your jewellery and valuables at home.
- **Warmth:** Please wear warm clothing and avoid air-conditioning (for example in the car on the way to the hospital).
- **Previous Scans:** Please bring with you any previous CT, MRI or PET scans. These will be returned to you at the end of the test.
- **Pregnancy/Breastfeeding:** Please let us know if you are pregnant or breastfeeding.
- **Accompanying person:** Accompanying persons cannot be with you during the scan which will take 2-3 hours, they are welcome to drop you off and return to pick you up or wait in patient waiting room. Please do not bring children with you for the scan.
- **Timing:** It is very important that you arrive on time for your appointment as scans are in heavy demand and are allocated at 30 minute intervals. Parking around the hospital is difficult and failure to arrive on time will likely mean that the scan will need to be rescheduled. Please plan to arrive at least **30 minutes** before your booking time. The scan takes approximately 2-3 hours.

St. George
Hospital



NUCLEAR
MEDICINE

St. George Hospital

Dept of Nuclear Medicine

Ph: 9113-3112 Fax: 9113-3991

Level 1, Clinical Services Building, Gray St. Kogarah

Dr Patrick Butler, Dr Richard Quinn,

Dr Ramy Nour and Dr Scott Beuzeville

What happens on the day?

1. After all the paperwork is completed at the front desk, you will be transferred into the PET suite. The technologist will record your height, weight and blood sugar levels.
2. A small cannula will then be inserted into a vein in your arm to prepare for the injection of the radiotracer.
3. You will then be taken to the uptake room where you will be asked to relax and lie still for about one hour. During this time the technologist will give you the injection of the radiotracer through the cannula. It is very important that during this time you remain still. Do not chew gum, talk, use your phone, read or sleep as this will influence the quality of the scan.
4. At about 50 minutes after the injection, the technologist will contact you to begin preparing for the scan. The first step is to empty your bladder in the adjacent bathroom and then proceed to the scanning room. Please take all of your belongings with you.
5. You will then be positioned on the scanner to begin your scan. During the scan it is important that you remain still the entire time (about 20-25 minutes)
6. When the scan is over, the technologist will remove the cannula and you can leave the scanning room and go home.
7. The images and the scan results will be sent electronically to your doctor.
8. When the scan is over there are no restrictions and you can eat and drink.

Are there any risks involved?

You will be exposed to small dose of radiation. This dose is significantly less than a body CT scan.

What if I'm pregnant?

Generally, neither the PET or CT scans are performed on pregnant women. If you are pregnant or think you may be pregnant, contact your doctor immediately.

What is the cost of the scan?

Medicare funds PET scans under certain conditions and if you fulfil one of these conditions, there is no charge to you. However, if you do not fulfil one of these conditions, Medicare will not pay for the scan and there will be a charge of \$600. Your doctor would have discussed this with you.

When will my doctor get the result?

It takes up to 48 hours for the scan and images to be received by your referring doctor.

Questions?

If you have any questions about the scan, please do not hesitate to ask a staff member.

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Patient to Complete

- I agree to proceed with the PET/CT study.
The study has been explained to me and I have had the opportunity to read an information sheet about the procedure.
- I am not pregnant or breast feeding.
- I consent to the Department staff contacting my referring physician/GP and/or other health care providers involved in my ongoing care for the purpose of exchanging clinical information to assist in the evaluation of the procedure and in my ongoing clinical management.
- I consent for my data to be used for research, quality assurance and audit purpose. I understand that presentation or publication of such data will not reveal my identity in any way.

Signed: _____

Date: _____

Useful websites for further information

Victoria State Government - Better Health Channel:

<http://www.betterhealth.vic.gov.au/health/conditionsandtreatments/pet-scan>

St. George and Sutherland Nuclear Medicine: <http://www.sgsnuclearmedicine.com.au>