

## Medical Imaging patient information

### PET (Positron Emission Tomography) Scanning

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#### What is a PET Scan?

- PET is a special branch of Nuclear Medicine which uses a PET/CT scanner to detect the metabolic activity of cells within the body. It is a non-invasive way to assess this activity in different cells and is combined with a low dose CT scan (PET/CT) to allow any abnormalities seen in the PET scan to be precisely located within the body. This allows a more accurate diagnosis for patients.
- It achieves this by using a small amount of radioactive glucose injected into a vein.
- It is predominantly used for detection and monitoring of cancer patients and can be used to image infection/inflammation and neurological conditions.

#### What preparation is required?

You will receive specific instructions based on the type of PET/CT you require. If you are having a FDG PET scan there are a few simple but very important instructions to follow:

1. *You must fast for a minimum of 6 hours before the scan. If you have a morning appointment, we require no food or drinks (except water) to be consumed from the time you wake up. This includes no lollies, gum, coffee, tea, or food of any type.*
2. *You must be well hydrated for the scan. On the morning of the scan drink 4-6 glasses of water to allow for an optimal study.*
3. *Do not bring young children to the department. We recommend reducing contact with young children in the hours after your scan.*
4. *If you are a diabetic patient, please contact the department for further evaluation and instructions.*

Leave valuables at home.

You can arrive with family; however, they will need to leave once you are resting for your scan.

#### What is involved?

- You will be prepared for your scan by a Nuclear Medicine Technologist. This will include a more thorough questionnaire about the reason for the scan. They will then explain the procedure and answer any questions you have about the scan.
- A small needle will be inserted into a vein and a cannula (thin tube) will remain in your arm during the procedure. Your blood sugar levels will be checked. The radioactive tracer will then be injected through the cannula.
- If you are having a FDG PET Scan you will be asked to rest quietly in a recliner chair for approximately 60-90 minutes. FDG is absorbed by areas of the body that are highly active. This includes the brain and heart, but also active muscles. For this reason, we require you to avoid movement and talking during this uptake time. There will be a television in the room

that you can watch or you may want to rest quietly. You can also bring music to listen to if preferred. You will NOT be allowed to use your mobile, talk to someone else in the room, or read a book during this time. All these activities result in increased muscle uptake and may compromise the interpretation of your scan.

- After your resting time you will be asked to empty your bladder before the scan begins.
- After the scan you will be taken out of the PET camera room and asked to wait. This is to ensure the quality of the images is adequate before we send you home.

### **Are there any side effects?**

There are no side effects from the radioactive tracer used during the scan. You will feel no different when you leave the department. You may drive yourself to and from the hospital.

### **How long will this take?**

This will depend on the type of scan being performed but you can expect to be in the PET Department between 2 to 3 hours. The actual time on the PET scanner is usually between 20-30 minutes.

Paid parking is available at the hospital. Please be aware street parking is limited around the hospital.

### **How do I get my results?**

Digital images are immediately available to your doctor and your records will be kept permanently. This occurs through a system called PACS. **Urgent reports will be promptly communicated directly to your doctor. Reports generally take 24 hours.**

### **How much will this cost?**

Please speak with the receptionist when making your booking regarding the cost.

### **Please note:**

If you are or think you may be pregnant or if you are breast-feeding, please tell the PET Department staff when you make your booking for the test. It is important to bring with you your referral and previous tests (only if previous ones were **not** done at Cabrini or MIA).

For an appointment or if you have any questions about the test please call **9508 1429**