

## **Positron Emission Tomography with Computerized Tomography (PET/CT Scan)**

### **What is a PET/CT scan?**

A PET/CT scan is a procedure used to produce pictures of the function and metabolism of the cells of the body. The PET provides a picture of the function and the CT provides a picture of the anatomy. From the images produced, the physicians can identify abnormalities of the heart and brain as well as identify areas of cancer throughout the body. You will be given an injection of a low-level radioactive material which attaches to a natural body chemical called glucose. The scan shows where the radioactive material localizes.

### **When is it used?**

PET/CT is utilized mostly in Oncology, Neurology and Cardiology.

- In Oncology it is used to determine the location and severity of a tumor.
- In Neurology it is used to aid in the diagnosis of Alzheimer's disease, dementia, strokes, brain tumors and seizures.
- Cardiology uses PET/CT for viability and perfusion of the heart.

### **How do I prepare for a PET/CT scan?**

- The night before the procedure, eat a light meal, such as soup and salad.
- Fast for at least 4 hours prior to your procedure.
- Do not exercise 24 hours prior to the exam
- Wear warm and comfortable clothing.
- Plan to spend two to three hours for the procedure.

### **What happens during the procedure?**

The PET technologist will inject a low-level radioactive material and a natural body compound (most commonly glucose, but sometimes water or ammonia) into your vein. You will be asked to relax for awhile so that the glucose can distribute throughout the body. The PET/CT scanner has a hole in the middle and looks like a large doughnut. You will lie down on an examining table that slides into the PET/CT scanner. You will be asked to rest quietly and try not to move or talk. The technologist will then take pictures that help the doctor understand the health of the organs scanned.

### **What happens after the procedure?**

There are no restrictions after having your PET/CT scan but you should drink plenty of fluids to flush the radioactive substance from your body.

### **What are the risks associated with this procedure?**

Having a PET/CT scan is safe and cannot hurt you. There are no known risks with this test.