

## **PET/CT Patient Information**

Positron Emission Tomography (PET) is non-invasive technology that helps doctors visualize how your cells absorb glucose.

Glucose is the basic component your cells use to create energy. By observing its metabolism, a PET scan pinpoints cancer cell activity. Since changes in your body chemistry occur before a cancerous tumor actually forms, a PET scan is often able to identify disease earlier than a test that scans solely for tumor mass.

The combination of a PET scan and a computed tomography (CT) scan can provide detailed information for diagnosis, treatment and follow-up.

In addition to helping evaluate cancer, PET also may be used to examine certain cardiac and neurological disorders such as seizures and dementia.

### **How it works:**

Before a PET scan, radioactive tracer is injected intravenously. We use FDG, which is similar to glucose. The PET scan pinpoints metabolic activity as your cells absorb the FDG. A computer will combine information from both the PET scan and a CT Scan to create a 3D image of the body's cellular uptake.

### **How to prepare for PET/CT:**

- Do not eat anything for four hours prior to your exam.
- Drink plenty of water. Do not drink flavored water, coffee, tea, soda or dietary drinks.
- Be on time. The FDG is ordered just for you and may not be usable if you are late.
- Take your usual medications with water only. However, If you

are diabetic, you cannot take insulin within four hours of your exam.

- Avoid strenuous exercise 24 hours prior to the test. This includes a run or walk.
- Wear warm comfortable clothing with no metal buttons, snaps or zippers.

Your blood sugar will be tested, and an IV will be started in a vein in your arm for the injection of FDG. You will then rest for a 90-minute uptake period so the FDG can circulate through your body. Following the uptake you will be asked to relieve your bladder and then will enter the image scanner.

Your scan will be performed on a Siemens Biograph, which has the largest field of view in the industry. The acquisition of both PET and CT images will take approximately 30 minutes, depending on the images needed. You will breathe normally and remain still while the technologist is monitoring your scan from the control room, where you will be able to contact him should you need anything. The FDG will decay very quickly and will be excreted through your urine so continue to drink fluids.

Your scan will be reviewed by a radiologist and the results will be sent to your physician.