

## The Finley Hospital Radiology Patient/Family Information **PET/CT Scan**

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

PET is a unique imaging system that shows how an organ or tissue uses elements in the body.

CT provides the anatomical information – the structure detail of bones, organs, and tissues.

### **How it Works**

Your body is primarily made up of oxygen, hydrogen, nitrogen and carbon. These are naturally occurring elements known as the ‘basic building blocks of life’. In a PET study, these elements are made radioactive and then attached to other compounds used to fuel your body, like sugar or fats. This radioactive compound, or tracer, is then given to you by an injection in your arm. Once these tracers are inside your body, the PET scanner is able to show how organs and tissues are using them. The radioactive tracer used for this exam is FDG, or Fluorine-18 Deoxyglucose.

After the PET images are obtained, CT images of the same areas are done. These two different image sets are then fused together and displayed. This new set of images allows the doctor to view an area for both function and structure. The combination of images greatly increases the doctor’s ability to pinpoint areas of increased glucose.

### **Special Note**

Before the exam, please tell your doctor if you may be pregnant or if you are nursing.

### **Patient Preparation**

Please bring your medication list with you to your exam.

- No strenuous physical activity or exercise within 72 hours of your appointment.
- Do not eat or drink anything except water 6 hours prior to your appointment.
- If your appointment will be scheduled for early afternoon to early evening, breakfast is allowed, but only meat, eggs and some vegetables are to be eaten (see foods to avoid listed above). You will still need to not have anything to eat or drink for 6 hours before your appointment.
- If you are a diabetic take oral medications as usual. Take insulin with your breakfast, accordingly, about 6 hours before arriving for study. Proteins, low carb.
- Regular medications may be taken with water as prescribed.
- Drink two glasses of water 1 hour before your appointment.
- Wear loose, comfortable clothing without metal if possible. Leave jewelry at home if possible. Wear your hearing aid, glasses or dentures.
- No gum or tobacco chewing 72 hours before your appointment.

Let the scheduler know if you have any of the following:

- Latex sensitivity/allergy
- If you will need pain medication for the exam
- Claustrophobia

- Diabetic
- Any previous exams at another location
- If you are pregnant or possibility of pregnancy
- If you are nursing

### **Is PET/CT Safe?**

Yes, PET/CT provides special information about your condition in a non-invasive manner. As with any medical procedure, there is some risk involved. There is a low level of radiation exposure with the tracer, but it is in the body for only a short period of time and has no known side effects.

### **What Happens During the Test?**

The exam takes about 2 1/2 hours from start to finish. At the beginning your PET/CT exam, a small amount of radioactive material (FDG-18) will be injected into one of your veins through an IV, which has been inserted in your arm or hand. There are no side effects from the injection.

Typically, you will wait one hour after the injection for the material to travel through your bloodstream. During this waiting period, you will be asked to remain quiet and refrain from talking.

During your PET/CT scan you will be asked to lie very still for extended periods of time. This may result in stiffness or fatigue. Since each PET study is different, the staff will go over your particular procedure with you in detail so you will know exactly what to expect. We will make every effort to make you comfortable during the procedure.

You should allow 2 to 3 hours for the procedure although usually, you will not be in the scanner anymore than 40 minutes.

### **When Will I Know the Results?**

The radiologist will review and interpret the scan the next day. A written report will be sent to your doctor. Your doctor will discuss these results with you.

Please allow your physician the time needed to review these results.

Name: \_\_\_\_\_

Exam Date/Time: \_\_\_\_\_