What is PET/CT?
PET is a unique imaging system that measures metabolism (glucose) to help doctors evaluate how well organs and tissues are functioning. 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 Flourine-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 you medication list with you to your exam.

NON-DIABETIC PATIENT PREPARATION
- The night before your exam, eat a high protein, low sugar, low carbohydrate supper. This could include any meat, eggs, and some vegetables. Avoid potatoes, pastas, cereals, breads, corn, peas, carrots, dairy products, fruits and sugars.
- Avoid all caffeine and sugar (including fruit) for 24 hours before your appointment.
- No strenuous physical activity or exercise within 24 hours of your appointment.
- Do not eat or drink anything except water 4 hours prior to your appointment.
- If your appointment is scheduled for late morning or early afternoon, 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 4 hours before your appointment.
- 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.
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

**DIET CONTROLLED DIABETIC PATIENT PREPARATION**

- The night before your exam, eat a high protein, low sugar, low carbohydrate supper. This could include any meat, eggs, and some vegetables. **Avoid** potatoes, pastas, cereals, breads, corn, peas, carrots, dairy products, fruits and sugars.
- Avoid all caffeine and sugar (including fruit) for 24 hours before your appointment.
- No strenuous physical activity or exercise within 24 hours of your appointment.
- Do not eat or drink anything except water 6 hours prior to your appointment.
- No oral hypoglycemic medications taken within 6 hours of your appointment. All other non-diabetic 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.
- 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

**ORAL HYPOGLYCEMIC CONTROLLED DIABETIC PATIENT PREP**

- Oral hypoglycemic medications should not be taken within 6 hours of the exam.
- If you have a late morning or early afternoon appointment, take your usual dose of oral hypoglycemic medication and eat, timing this so that your meal is 6 hours before your PET/CT appointment.
- The night before your exam, eat a high protein, low sugar, low carbohydrate supper. This could include any meat, eggs, and some vegetables. **Avoid** potatoes, pastas, cereals, breads, corn, peas, carrots, dairy products, fruits and sugars.
- Avoid all caffeine and sugar (including fruit) for 24 hours before your appointment.
- No strenuous physical activity or exercise within 24 hours of your appointment.
- Do not eat or drink anything except water 4 hours prior to your appointment.
- If your appointment is scheduled for late morning or early afternoon, 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 4 hours before your appointment.
- 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.
- 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
**INSULIN DEPENDENT DIABETIC PATIENT PREPARATION**

- Insulin should not be taken within 6 hours of your PET/CT appointment. If you have an early appointment you will be able to take your insulin & eat after your exam.
- Take your usual insulin dose the day before the PET/CT.
- The night before your exam, eat a high protein, low sugar, low carbohydrate supper. This could include any meat, eggs, and some vegetables. **Avoid** potatoes, pastas, cereals, breads, corn, peas, carrots, dairy products, fruits and sugars.
- Avoid all caffeine and sugar (including fruit) for 24 hours before your appointment.
- No strenuous physical activity or exercise within 24 hours of your appointment.
- Do not eat or drink anything except water 6 hours prior to your appointment.
- Wear loose, comfortable clothing without metal if possible. Leave jewelry at home if possible.
- Wear your hearing aid, glasses or dentures.
- Let the scheduler know if you have any of the following:
  - Latex sensitivity/allergy
  - If you will need pain medication for the exam
  - Claustrophobia
  - Diabetes
  - Any previous exams at another location
  - If you are pregnant

**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 Will I Experience During the Exam?**

The exam takes about 3 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 two to three hours for the procedure although you will not be in the scanner for the entire time.

**When Will I Know the Results?**

The radiologist will review and interpret the scan shortly after the exam is completed. 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.

**Outpatient Instructions**

Please register at the Outpatient Registration desk at the West Entrance of St. Luke’s Hospital. After registering, testing will be done in the Imaging Services department on the second floor of the hospital. Please use the elevators past registration on the left.

Name ____________________________________________

Exam date/time ________________________________