

PROVIDING ANSWERS

# PET/CT



*Your physician has referred you for a PET/CT exam at Rush North Shore Medical Center. We've prepared this brochure to help you understand what to expect and how to prepare. Please take a few minutes to read it. If you have additional questions, our staff is happy to assist you. Just let us know.*





## *What is PET/CT?*

PET/CT combines the functional information from a positron emission tomography (PET) exam with the anatomical information from a computed tomography (CT) exam into one single exam.

A PET scan detects changes in cellular function – how your cells are utilizing nutrients like sugar and oxygen. Since these functional changes take place before physical changes occur, PET can provide information that enables your physician to make an early diagnosis.

A CT scan uses a combination of X-rays and computers to create a non-invasive way to see inside your body. One advantage of CT is its ability to rapidly acquire two-dimensional pictures of your anatomy. Using a computer, these 2-D images can be presented in 3-D for in-depth clinical evaluation.

The PET exam pinpoints metabolic activity in cells and the CT exam provides an anatomical reference. When these two scans are fused together, your physician can view metabolic changes in the proper anatomical context of your body.





## *Why do I need this exam?*

Your PET/CT exam results may have a major impact on your physician's diagnosis of a potential health problem – and, should a disease be detected, how a treatment plan is developed and managed.

A PET/CT exam can also help predict the likely outcome of various therapeutic alternatives, pinpoint the best approach to treatment, and monitor your progress. If you're not responding as well as expected, you can be switched to a more effective therapy immediately.

## *What should I expect when I arrive?*

When you arrive, we will review your health history and any past exams.

For the PET portion of the exam you'll receive a radiopharmaceutical injection. This radioactive tracer has passed multiple quality control measures. PET radiopharmaceuticals lose their radioactivity very quickly (2 minutes to 2 hours) and only very small amounts are injected. In all cases, little or no radioactivity will remain in your body 10 minutes to 6 hours after injection.

For most studies, you'll have to wait for the radiopharmaceutical to distribute itself – typically 30 minutes to an hour. During this time you will be asked to relax in a comfortable lounge area.



## *What will the scan be like?*

The specific details of your exam will be explained fully by the technologist before we begin and the technologist will monitor you during the exam. You will lie on a comfortable padded table. The table will move slowly through the tube-shaped PET/CT scanner as it acquires the information needed to generate diagnostic images.



You will be asked to lie very still during the scan because movement can interfere with the results. For the CT scan you will be asked to hold your breath for a few seconds to minimize body movements. During the scan, you might hear a humming noise but you will not feel anything unusual. You may feel the table move while images are being taken at certain locations on your body. The technologist will monitor you during the exam.

## *How long will all this take?*

The PET/CT scan should last between 20 and 45 minutes. The exam procedure can vary depending on what we are looking for and what we discover along the way. You should plan to spend two to three hours with us.

# *Questions &*



## *What happens after the exam?*

You may leave us as soon as the exam is complete. Unless you've received special instructions, you will be able to eat and drink immediately – drinking lots of fluids soon after the exam will help remove any of the radiopharmaceutical that may still be in your system.

In the meantime, we'll begin preparing the results for review by our radiologists, and then by your physician, who will tell you what we've learned.



## *Safety of PET/CT exams*

Be assured that PET/CT exams are a safe and effective diagnostic procedure. The radiopharmaceuticals used in PET don't remain in your system long, so there's no reason to avoid interacting with other people once you've left. However, to be extra safe, you should wait for a few hours before getting too close to an infant or anyone who's pregnant.

# *Answers*



# ABOUT YOUR PET/CT EXAM

You've been scheduled to undergo a PET/CT examination at Rush North Shore Medical Center. Park and enter at the PET/CT, CT, & MRI Centres near the intersection of Golf Road and Kenton Avenue.

Date/Time \_\_\_\_\_

## **Please follow these instructions:**

- Do not eat or drink anything except water for 4-6 hours before your exam because it could interfere with the results; don't even chew gum.
- If you take medications, drink only enough plain water to swallow them.
- If you've been advised not to take your medications on an empty stomach, eat nothing more than a few soda crackers within 4-6 hours of your exam.
- If you are diabetic, let us know ahead of time so we can work with your physician to determine the safest possible way for you to prepare for your exam.
- If you feel feverish, please call this to our attention.

In addition, please let us know if you might be pregnant or are currently breast feeding.



**847-674-9390**

**PET/CT, CT, & MRI CENTRES**

 **RUSH**  
NORTH SHORE  
MEDICAL CENTER

AT GOLF AND GROSS POINT ROADS  
SKOKIE • ILLINOIS • [WWW.RNSMC.ORG](http://WWW.RNSMC.ORG)