

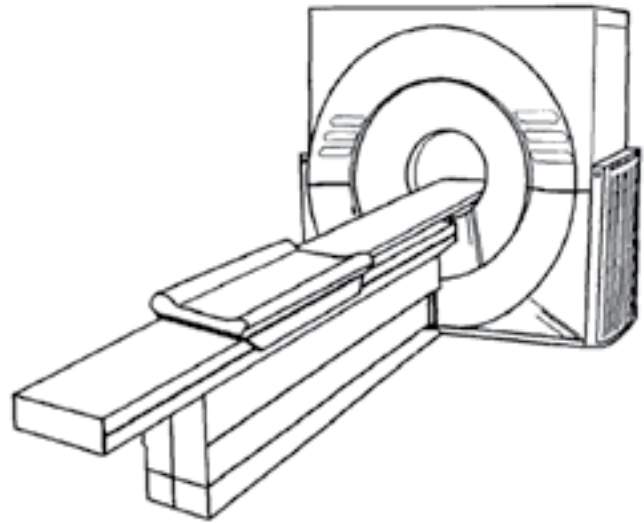
## PET Scan

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PET stands for **P**ositron **E**mission **T**omography. The scan looks at metabolic activity (cell activity) inside the body. Your doctor uses this information to help diagnose and manage your disease. The scan can give more information after you have had x-rays, a CT scan, MRI or nuclear medicine or laboratory procedures done.

### How does it work?

A PET scanner looks like a CT scanner. It takes pictures of how your body uses a small amount of radioactive material called a **tracer**. These are also called **isotopes**. The tracer is injected into your bloodstream through a vein. The tracer goes to areas in the body that use sugar. Your radiation exposure is very small. The amount of time for your scan depends on which areas of the body are scanned. For these pictures you will need to be flat on your back and lie still.



Nuclear medicine doctors will review the images from your scan. This information is compared to your health history and your other test results.

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**This handout is for informational purposes only. Talk with your doctor or health care team if you have any questions about your care.**

## Why do I need it?

PET scans are done for many reasons. They are used to see if you have an injury or an illness such as cancer, epilepsy, memory loss or heart disease. It can show the amount of a disease. A PET scan may be done during treatment to see how your body is responding to the treatment. It may also be done after treatment to measure the results.

## What are the benefits of the PET scan?

A PET scan is useful in finding the source of many of the most common cancers. It can also give doctors important information about heart and nervous system diseases.

## What are the risks with the PET scan?

You are exposed to small amounts of radiation during the scan. This amount of radiation is not a threat to your health. A woman who is pregnant or breastfeeding should talk to her doctor about any risks before having a PET scan. Side effects from this scan are rare.

## How do I prepare for a PET scan?

- **Talk to your doctor about all the medicines you take.** Some medicines may need to be stopped for a time before the scan.
- **If you have had chemotherapy in the past 2 to 3 weeks, you may not be able to have the scan.** Please let a member of the radiology health care team know if you have had chemotherapy recently.
- **Bring your own medicines for pain, anxiety or fear of being in a closed space (also called claustrophobia).** We cannot give these medicines to patients. If you need to take this type of medicine, you must have someone come with you to take you home after the scan.
- **Do not smoke for at least 6 hours before your scan.**
- **Do not have any food, candy, chewing gum, cough drops or drinks other than plain water for at least 6 hours before your PET scan.** You will be asked to drink some plain water before your scan to keep your body hydrated. If you need to take any medicines, take them only with water.

- **Avoid strenuous activity for 24 hours before your scan.**
- **Arrive 30 minutes before your appointment.** You should plan to be at this appointment for 2 to 3 hours. It is important to be on time for your appointment, so you can receive the radioactive tracer at the scheduled time. The tracer is effective for only a short period of time.
- We will have you empty your bladder before you have the scan. The PET scanner must complete its cycle once it starts.

### **Here are three important things to know if you have diabetes:**

1. There must be at least 6 hours between the time you take medicine or insulin to regulate your blood sugar, and when you have a PET scan. We will work with you to schedule your scan so you have the time needed.
2. If you have diabetes, you will need to regulate your blood sugar (glucose). The blood sugar level needs to be less than 200 at the time of the scan. This is because the glucose in the blood competes with the radioactive tracer. If you take insulin, bring it with you to your PET scan appointment.
3. Call ahead to the PET scan office if your glucose levels are over 200. The number to call is (614) 293-6920 or (614) 293-4926.

### **What should I bring for a PET scan?**

- Bring a photo ID for registration.
- Bring information about your health history such as, a list of your medicines, supplements that you taking, allergies, health conditions or treatments.
- Bring your health insurance information with you.
- Bring all the medicines you will need to take until you return home. Make sure you bring enough medicine, in case there is a delay or a longer wait time.
- Bring your own medicines for pain, anxiety or fear of being in a closed space (also called claustrophobia). Staff will tell you when you can take them before the scan.

## **What happens during the PET scan?**

You will be asked about your health history, medicines and allergies. There may be some paperwork for you to fill out. Your blood glucose will be checked to be sure that it is below 200.

A PET scan technologist will describe the procedure and answer your questions. Female patients will be asked if they could be pregnant or if they are breastfeeding.

An IV will be started in a vein in your arm or hand. Next the tracer will be injected. You will also be given some saline (sterile salt water) through the IV. You may also be asked to drink a bottle of water that contains a medicine called contrast. The time between the injection and the start of the scan will vary for each type of scan, usually 60 to 80 minutes. You will need to remain relaxed and quiet during this time.

During the scan you will lie flat and still on your back. The table will move you to different positions in the scanner. The scanner detects the radiation given off by the tracer. It takes pictures of how the tracer is distributed in your body. It requires about 15 to 25 minutes for all of the pictures to be taken. The scans will be reviewed before you leave to be sure all the pictures that are needed have been taken.

## **What happens after the PET scan?**

There are no side effects from the scan. The only side effects would be from medicines you might choose to take for pain, anxiety or claustrophobia. If you take any of these medicines, make plans for someone to drive you home after your scan.

## **When will I receive the results of the PET scan?**

Written results will be available within a few days. Your referring doctor will discuss the results with you and may give you a copy of the report.

## **Where do I go for my appointment?**

Your appointment is scheduled at:

- The James Cancer Hospital 460 West 10th Ave, Columbus, OH.  
Report to the Ground Floor to register and you will be told where to go for your PET scan. For driving directions and parking information go to [Driving Directions to James Cancer Hospital and Solove Research Institute.](#)

- ❑ University Hospital, 410 West 10th Ave, Columbus, OH. Report to Radiology Outpatient Registration on the 2<sup>nd</sup> floor of Doan Hall. For directions and parking information, go to [Driving Directions to Ohio State's Wexner Medical Center](#).
  
- ❑ Martha Morehouse Medical Plaza, 2050 Kenny Road, Columbus, OH 43221. Report to the Pavilion building, first floor registration. For directions and parking information, go to [Driving Directions to Martha Morehouse Medical Plaza](#).

Driving directions and parking information can be found at [http://medicalcenter.osu.edu/maps/driving\\_direction/Pages/index.aspx](http://medicalcenter.osu.edu/maps/driving_direction/Pages/index.aspx)

### **Where do I call with questions about my PET scan or to change my appointment?**

Please feel free to call if you have other questions or if you are not able to keep your appointment. The telephone number for the PET scan office is (614) 293-6920.

Partially adapted with permission from information shared as a courtesy by Duke University PET Facility.