



## PATIENT & CAREGIVER EDUCATION

# About Your PET-CT with PYL or PSMA Tracer

This information will help you get ready for your positron emission tomography (PET) computed tomography (CT) scan with PYL or PSMA tracer at MSK.

## About your PET-CT with PYL or PSMA tracer

A PET-CT scan is an imaging procedure that is used to:

- Find cancer cells.
- Plan your treatment.
- See how your treatment is working.

You'll have a CT scan with a low dose of radiation at the same time as your PET scan. CT scans take a fast series of X-ray pictures. They're combined with your PET scan to create pictures of your soft tissues and bones.



You may also be scheduled for a diagnostic CT at the same time as your PET-CT. A diagnostic CT lets your healthcare provider learn more

about your tissues, bones, and blood vessels. Ask your healthcare provider for the resource *Computed Tomography (CT) Scan* ([www.mskcc.org/pe/ct\\_scan](http://www.mskcc.org/pe/ct_scan)) to help you get ready.

## **Tracer**

Before your PET-CT, you'll get a radioactive medication called a tracer. The tracer is attached to a substance that your cells and tissues use. Cancer cells use the substance differently than non-cancer cells.

The radioactive part of the tracer lets your healthcare provider see how your cells are using the substance. This helps them find any usage that is not normal. The tracer doesn't stay in your body long. It leaves your body mainly through your urine.

You will get the tracer through a catheter (thin, flexible tube). The catheter may be an intravenous (IV) line in your arm, hand, or Central Venous Catheter (CVC), if you have one.

Your PET-CT will use PYL or PSMA as the tracer.

# Getting ready for your PET-CT with PYL or PSMA tracer

## Take devices off your skin

You may wear certain devices on your skin. Before your scan or procedure, device makers recommend you take off your:

- Continuous glucose monitor (CGM)
- Insulin pump

Talk with your healthcare provider about scheduling your appointment closer to the date you need to change your device. Make sure you have an extra device with you to put on after your scan or procedure.

You may not be sure how to manage your glucose while your device is off. If so, before your appointment, talk with the healthcare provider who manages your diabetes care.

## The day before your PET-CT with PYL or PSMA tracer

**If you're getting anesthesia (A-nes-THEE-zhuh), read the "For people getting anesthesia" section at the end of this resource.** Anesthesia is medicine to numb you or make you sleep.

# **The day of your PET-CT with PYL or PSMA tracer**

## **What to expect when you arrive**

Many staff members will ask you to say and spell your name and birth date. This is for your safety. People with the same or similar names may be having a procedure on the same day. Once you're in the department, you'll fill out a brief questionnaire.

Your care team will inject the tracer into your vein. You'll wait 60 minutes for your body to absorb the tracer. How long this takes will depend on the area of your body being scanned.

Try to relax and limit your movement during this time. You can sleep, read, listen to music, or watch videos while you're waiting. Ask for a blanket if you feel cold.

Your care team will ask you to urinate (pee) just before your scan.

## **During your PET-CT with PYL or PSMA tracer**

When it's time for your scan, your technologist will bring you to the scanning room. They will help you onto the scanning table.

The machine looks like a large doughnut with a hole in the middle (see figure 1). This is the scanning ring

(scanner). The scanner is about 3 feet (1 meter) deep.

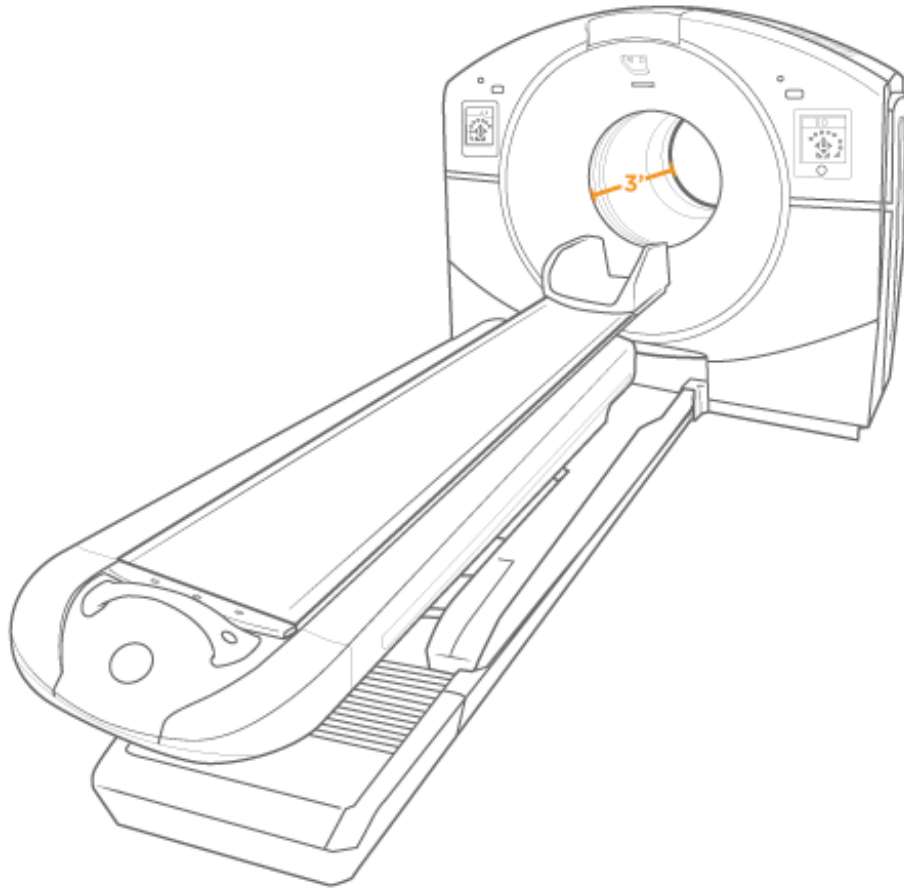


Figure 1. PET-CT machine

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Once you're on the scanning table, the table will move slowly through the scanning ring. You must lie very still until your scan is done. This can take 30 to 45 minutes, depending on the type of scan you're having.

If you're also scheduled for a diagnostic CT scan, you'll get a contrast infusion through your IV or CVC. An infusion is when medicine is slowly put into your bloodstream. This will happen after your technologist takes the first series of pictures.

To learn more, read *Computed Tomography (CT) Scan* ([www.mskcc.org/pe/ct\\_scan](http://www.mskcc.org/pe/ct_scan)).

## **What to do after your PET-CT with PYL or PSMA tracer**

You may leave as soon as your scan is done, unless you have other tests or procedures scheduled. You'll get a card stating that you had a test done with a radioactive tracer and your test date. Keep this card with you because some security equipment can find radioactivity until it leaves your body. This should take less than a day.

Remember to stay hydrated after your scan. Drink water and other fluids throughout the rest of the day to help remove the tracer from your body. You can go back to your normal diet right away, unless you're given other instructions.

### **Follow radiation safety precautions**

It is safe to be around other people right after your mapping procedure, including pregnant people and children. You can spend time near others, and can kiss, hug, hold, and touch them. You can also go back to doing your normal activities right away.

Some security equipment (such as at airports or outside

tunnels) can detect very small amounts of radiation. A staff member will give you a wallet card that says you had radioactive medicine. This card says you may give off small amounts of radiation for up to 1 day after your procedure. Show this card to law enforcement if they stop you at a checkpoint.

## **Your PET-CT results**

A radiologist will read your scan and send your results to your doctor. If your PET-CT was done to find cancer cells, your doctor should have your results in 2 business days. Ask your doctor how they will share your results with you. If your PET-CT was done to plan your treatment, your doctor will use the images to plan your care.

### **For people getting anesthesia**

If you are getting anesthesia (medication to make you sleepy) during your PET-CT, follow these instructions.

#### **What to do the day before your PET-CT**

##### **Arrange for someone to take you home**

You must have a responsible care partner take you home after your procedure. A responsible care partner is someone who can help you get home safely. They should be able to contact your care team if they have

any concerns. Make sure to plan this before the day of your procedure.

If you don't have a responsible care partner to take you home, call one of the agencies below. They'll send someone to go home with you. There's a charge for this service, and you'll need to provide transportation. It's OK to use a taxi or car service, but you still need a responsible care partner with you.

### **Agencies in New York**

VNS Health: 888-735-8913

Caring People: 877-227-4649

### **Agencies in New Jersey**

Caring People: 877-227-4649

### **Instructions for eating**



**Stop eating at midnight (12 a.m.) the night before your surgery.** This includes hard candy and gum.

If your healthcare provider told you to stop eating earlier than midnight, follow their instructions. Some people need to fast (not eat) for longer before their surgery.



## **What to do the day of your PET-CT**

### **Instructions for drinking**

Between midnight (12 a.m.) and 2 hours before your arrival time, only drink the liquids on the list below. Do not eat or drink anything else. Stop drinking 2 hours before your arrival time.

- Water.
- Clear apple juice, clear grape juice, or clear cranberry juice.
- Gatorade or Powerade.
- Black coffee or plain tea. It's OK to add sugar. Do not add anything else.
  - Do not add any amount of any type of milk or creamer. This includes plant-based milks and creamers.
  - Do not add honey.
  - Do not add flavored syrup.

If you have diabetes, pay attention to the amount of sugar in these drinks. It will be easier to control your blood sugar levels if you include sugar-free, low-sugar, or no added sugar versions of these drinks.

It's helpful to stay hydrated before surgery, so drink if you are thirsty. Do not drink more than you need. You

will get intravenous (IV) fluids during your surgery.



**Stop drinking 2 hours before your arrival time.** This includes water.

## Contact information

If you have any questions or concerns, call the Molecular Imaging and Therapy Service (MITS, or the Nuclear Medicine service) at 212-639-6652. You can reach a staff member Monday through Friday from 9 a.m. to 5 p.m. After 5 p.m., during the weekend, and on holidays, call 212-639-2000.

For more resources, visit [www.mskcc.org/pe](http://www.mskcc.org/pe) to search our virtual library.

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