

PET/CT FDG Body Scan

Positron emission tomography

This handout explains a PET/CT scan, how to prepare for it, how it works, what to expect during the scan, and how to get your results.

What is a PET/CT FDG body scan?

PET stands for *positron emission tomography*. CT stands for *computed tomography*. FDG stands for *2-Deoxy-2-[¹⁸F]fluoro-D-Glucose*.

A PET/CT FDG scan takes pictures of your body's cells in action. It allows a specially trained doctor (*radiologist*) to check for changes in your cells.

Before we start your scan, we will inject a *radioactive tracer* called *18 FDG*. Some cancer cells and inflamed cells use more energy than healthy cells. The tracer helps us see how much energy your cells are using. We measure this with a PET/CT FDG scan.

A PET/CT camera takes 2 types of pictures:

- The **PET scan** shows where the tracer has collected in your body.
- The **CT scan** shows your body structures.

Why are these scans done?

Together, the PET and CT images help your doctor see changes in your cells. Most times, we use these scans to find cancer or to find out how cancer treatments are working.



The dark areas show where tracer has collected.

How do I prepare?

- **Do not exercise for 24 hours** before your scan.
- **Drink plenty of water to stay hydrated.**
- **Do not eat or drink anything except plain water for 6 hours before your scan.**
- **Your last meal before the 6-hour fast must be high in protein not include any carbohydrates.**
 - You may take prescribed medicines (except cough syrup or chewable tablets) on the day of your exam **if** you can take them on an empty stomach. If you were told not to take your medicines, do not take them.
 - **Do not** chew gum, eat candy or mints, or take vitamins.

- **Starting 6 hours before your scan**, do **not** take any dextrose medicines by *total parenteral nutrition* (TPN) or *intravenous* (IV) line.
 - If you can, bring your most recent imaging films. These include PET, CT, or MRI scans. They may be on films or CD-ROM. Our doctors will compare them to your new PET/CT scan.
 - Make sure that your appointment time is convenient for you. Please arrive 15 minutes before your scheduled time. The exact timing of this study is very important.
 - Wear warm, loose-fitting clothes since scanner rooms may be cold. Do not wear jewelry or metal on your clothes on the day of your scan.
 - We will provide warm blankets and offer music for you to listen to during your scan.
 - Do **not** bring children or pregnant women with you, due to the radioactive material that will be injected.
 - If you will have a mild muscle relaxant for your scan:
 - It must be arranged before you arrive for your scan.
 - You must have a responsible adult come with you who will drive you home.
 - If you have disease in your pelvis, a bladder *catheter* (a tube that drains urine from your bladder) may be placed before your PET/CT scan. Please ask the nurse if you have any questions.
 - Please call staff where your scan is scheduled (see the “Questions” box on page 4 for phone numbers) for more instructions if you:
 - Have diabetes
 - Are taking any granulocyte colony-stimulating factor (G-CSF) medicines (such as Neupogen or Neulasta)
 - Are taking any drugs that stimulate red blood cells (such as Epogen or Procrit)
 - Your doctor may have requested a CT scan with IV contrast to be done on the PET/CT camera after your PET/CT scan. Please visit this website and click on “Computed Tomography (CT or CAT scan)” to learn more:
<http://uwmedicine.washington.edu/Patient-Care/Our-Services/Medical-Services/Radiology-Imaging-Services/Pages/ArticleView.aspx?subID=320>
- If you do not have access to the internet, please ask for a printed handout.

Food and Drink Before Your Scan

For this scan, you **must** strictly follow the instructions on page 3. If you do not or cannot follow the instructions, we will need to reschedule your scan.

Instructions



In the meal before your 6-hour fast

- You **MUST** eat fats and proteins.
- Do **NOT** eat any carbohydrate foods.

Eat ONLY:

- Plain meat (beef, steak, pork, chicken, or lamb), fish, and eggs. You may cook the meat in oil, if you wish. **NO** bacon, deli meats, or other processed meats.
- **VEGANS:** Eat **ONLY** plain tofu that has been cooked in oil (added fat is needed).

“Plain” means NO sauces, seasonings, dressings, or breading.

Drink ONLY:

- Water

Medicines:

- **NO** chewable, liquid, or lollypop medicines. Take all other medicines with water.



Starting 6 HOURS BEFORE your scan

- **FAST** – do **NOT** eat anything.
- You may drink water.
- Do **NOT** take any chewable, liquid, or lollypop medicines. Take all other medicines with water only.

If you have diabetes:

- Starting 6 hours before the study, do **NOT** take insulin or other diabetes medicines.



IMPORTANT!

- You **MUST** eat **ONLY** proteins and fats in your last meal before your 6-hour fast.

What should I expect when I arrive?

A nuclear medicine technologist, nurse, or both, will help you get ready for your scan.

- An *intravenous* (IV) line (a thin tube used to give you medicine and fluids) will be inserted into a vein.
- Your blood sugar will be checked.
- The technologist will inject the FDG tracer through your IV.
- You will relax for about 45 minutes while the tracer flows through your body.
- You will then be taken to the PET/CT scan area.
- You will be asked to lie on your back, with your arms above your head, on the scanner table.
- The PET/CT camera will take images. Most scans cover the area from the base of your skull down to the middle of your thighs. This imaging takes about 15 minutes.
 - If your doctor requested a whole-body scan (from the top of your head to your toes), the imaging will take around 30 minutes.
- Expect to be in the Imaging Department for 2 to 2½ hours for your entire PET/CT scan.

What will I feel during the scan?

You may feel some discomfort when the IV line is placed. During the PET/CT scan, you must relax and not move.

You will not feel anything from the tracer being in your body. The radioactivity is gone within a day.

What happens after the scan?

After the scan, drink plenty of fluids. This will help flush the remaining FDG tracer out of your system.

Who reads the scan and how will I get the results?

A radiologist or nuclear medicine doctor will read your scan, and will also review past scans you may have brought with you. Your own provider will give you your scan results. Your provider should receive the results from the radiologist or nuclear medicine doctor within 3 days.

You may also read your results on your eCare Results page. If you need copies of your images on disc, call 206.598.6206.

You and your provider will decide the next step, such as treatment for a problem, as needed.

Questions?

Your questions are important. Call your doctor or healthcare provider if you have questions or concerns.

UWMC Imaging Services:
206.598.6200

**UWMC Nuclear
Medicine:** 206.598.4240

**Seattle Cancer Care
Alliance:** 206.288.7200