

UW Medicine



Fred Hutch
Cancer Center



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PET/CT Cu-64 Dotatate Scan

How to prepare and what to expect

A Cu-64 dotatate scan is done to diagnose neuroendocrine tumors. This handout explains how to prepare for the scan, how it works, what you may feel during the scan, and how to get your results.

What is a Cu-64 dotatate PET/CT scan?

This scan is done to diagnose *neuroendocrine* tumors, which involve both the nervous system and the endocrine glands. For the scan, we will inject a radioactive *tracer* into your vein. The tracer used for this scan is called *Cu-64 dotatate*.

After the tracer is injected, it is taken up by *somatostatin receptors* in your body. Some types of tumors have a lot of somatostatin receptors. These tumors include *carcinoid* tumors (malignant tumors, often in the digestive tract), multiple *myelomas* (tumors in the bone marrow), and endocrine tumors (tumors in the glands).

One hour after the injection, we will use a special PET/CT camera to take images of your body. The camera does 2 types of scans:

- A *positron emission tomography* (PET) scan shows where the tracer has collected in your body.
- A *computed tomography* (CT) scan provides pictures of your body's structures.

Together, the PET and CT scans help your doctor see changes in your cells.



A PET/CT camera

How do I prepare?

- You may eat as usual.
- Drink plenty of water before and after this scan. This will help move the tracer out of your body and reduce radiation exposure.
- *If you were assigned female at birth:* Tell your provider if you are pregnant or breastfeeding, or if there is any chance you could be pregnant.

- *If you are breastfeeding:* You will need to stop breastfeeding and pump and discard your breastmilk for 12 hours after your Cu-64 dotatate injection.
- Please bring with you any past scans you had done related to this health issue. Your doctors will compare your new scans with the earlier ones.

Other Medicines

If your therapy involves **octreotide, pasireotide, or lanreotide injections**, follow these special instructions:

- **Sandostatin (octreotide):** This drug is given every day. Do **not** take this drug for 24 hours before your Cu-64 scan. Talk with the doctor who prescribed this drug. Find out if it is OK to pause your medicine for this scan.
- **Sandostatin LAR (octreotide):** This drug is given every 4 weeks. Schedule your Cu-64 scan for 1 to 2 days **before** your next injection.
- **Signifor (pasireotide):** This drug is given 2 times a day. Talk with the doctor who prescribed this drug. Find out if it is OK to pause your medicine for this scan. Then call Nuclear Medicine Scheduling at 206.598.4240 to find out when to schedule your Cu-64 scan.
- **Signifor LAR (pasireotide):** This drug is given every 4 weeks. Schedule your Cu-64 scan for 1 to 2 days **before** your next injection.
- **Somatuline Depot (lanreotide):** This drug is given every 4 weeks. Schedule your Cu-64 scan for 1 to 2 days **before** your next injection.

What can I expect when I arrive for the scan?

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

- *If you were assigned female at birth:* Before the scan begins, tell the technologist if there is any chance you could be pregnant.
- We will insert an *intravenous* (IV) tube into a vein in your arm or hand.
- We may place a catheter (tube) into your bladder if the scan includes your pelvis.
- The technologist will inject the tracer into your IV.

- You will relax for about 45 minutes while the tracer flows through your body.
 - We will then take you to the PET/CT scan area.
 - We will ask you to lie on your back, with your arms above your head, on the scanner table.
 - The PET/CT camera will then take images:
 - Most scans cover from the base of your skull down to the middle of your thighs. This imaging takes about 25 minutes.
 - If your doctor wants a scan of your whole body, we will take images from the top of your head to your toes. This imaging takes about 40 minutes.
 - Expect to be in the Imaging Department for 2½ to 3 hours for your entire scan.
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- During the scan, you must hold very still and breathe normally.
 - You may feel some discomfort when the IV line is placed.
 - You must lie flat on your back with your arms over your head for up to 25 minutes. We will use pillows to help provide support.
 - Your body will be inside the camera during the scan, but most of the time your head will not be enclosed. If you have a strong fear of enclosed places or concerns about pain, talk with your doctor about *sedation* (medicine to help you relax).
 - Most patients do not feel anything from the tracer.

Questions?

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

- UWMC Nuclear Medicine/
Imaging Services:
206.598.6200
- Fred Hutch Cancer Center
Nuclear Medicine:
206.606.7045
- Fred Hutch Cancer Center
PET Clinic: 206.606.7191
- Harborview Nuclear
Medicine: 206.744.4473

What happens after the scan?

After the scan, drink plenty of fluids. This helps flush the tracer out of your system. The radioactivity is gone within a day.

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

A radiologist or nuclear medicine doctor will read your scan and also review past scans you may have brought with you. They will send the results to your provider in about 3 days. Your own provider will give you your scan results.

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

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