



PATIENT & CAREGIVER EDUCATION

Computed Tomography (CT) Scan

This information will help you get ready for your computed tomography (CT) scan.

About Your CT Scan

CT scans take a fast series of X-ray pictures. The X-ray pictures are put together to create images of the soft tissues and bones in the area that was scanned.

You may need to have a CT with contrast. This depends on the reason for your CT scan and which part of your body your doctor needs to see. Contrast is a special dye used to make it easier for your doctor to see differences in your internal organs.

There are different types of contrast dyes used for scans. The contrast used for CT scans is an iodinated contrast (contrast that has iodine). Iodinated contrast is different from contrast that you get during MRI exams.

Iodinated contrast can be given in 2 ways: orally (by mouth) and through an intravenous (IV) catheter (thin, flexible tube) in your arm or central venous catheter (CVC),

such as an implanted port.

Oral contrast

If your doctor has ordered a CT with oral contrast, you'll be asked if you're allergic to iodinated contrast when you check in for your appointment. Depending on whether you have these allergies, you will get 1 of the oral contrast solutions listed below. Both work the same way, are used for the same purpose, and are safe even if you have diabetes.

- Iodinated contrast
- Diluted barium sweetened with saccharin. You will get this option if you're allergic to iodinated contrast.

If you're getting oral contrast, you will start drinking it before your scan. This will give the contrast solution time to move into your bowels (intestines).

IV contrast

If your doctor ordered a CT scan with IV contrast, the contrast will be injected into one of your veins or into your CVC, if you have one.

Reactions to contrast

Some people can have an allergic reaction to contrast. Tell your doctor about any allergies you have or if you've had a reaction to CT contrast in the past. If your doctor feels that they need to give you medication(s) to reduce your risk of

having a reaction, you will get a resource called *Preventing An Allergic Reaction to Contrast Dye* (https://sandbox18.mskcc.org/pe/allergic_reaction_contrast).

Breastfeeding

If you're breastfeeding, you may choose to continue after your CT scan with contrast. If you have questions or would like to discuss contrast and breastfeeding, talk with your radiologist on the day of your CT scan.

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 of Your CT Scan

You can eat and drink as usual on the day of your CT scan.

Before your scan

- You may need to change into a gown before your CT scan.
- If you're getting oral contrast, you will start drinking it before your scan.
- If you're getting IV contrast:
 - A member of your care team will ask you if you:
 - Have kidney disease.
 - Have poor kidney function.
 - Have had surgery on your kidneys.
 - Have diabetes.
 - Are taking metformin or medication that contains metformin (such as Glucophage[®], Glumetza[®], or Janumet[®]).
 - If you answer yes to any of these questions, or if you're 70 years or older, you'll need to have a blood test called a serum creatinine before your CT scan. If the doctor who ordered your CT scan didn't check your serum creatinine ahead of time, we will check it before you have your CT scan.
 - Your nurse will place an IV catheter into a vein in your

arm or hand if you don't already have a CVC. You will receive your contrast through your IV or CVC.

During your scan

When it's time for your scan, your technologist will bring you to the scanning room and will help you onto the scanning table. The CT machine looks like a large doughnut, with a hole in the middle. This is the scanning ring. It's not a tube like an MRI machine. Once you're on the scanning table, the table will move slowly through the scanning ring. You must lie very still in the scanning ring until your scan is done.

After your technologist takes the first series of pictures, you'll get the injection (shot) of contrast in your IV or CVC. You may feel warm and have a mild metallic taste in mouth. Let your nurse know if you feel any pain at your IV site or if you feel any symptoms such as itchiness, swelling, dizziness, if you have trouble breathing, or if you feel like you're going to faint.

Your CT scan will take under 30 minutes.

After your scan

- If you had an IV placed, your nurse will remove it and place a bandage over the area. You can remove the bandage after 1 hour, as long you aren't bleeding.
- If you're not feeling well, or if you have any questions or

concerns, talk with your doctor or technologist.

- Let your nurse know if you have any of the following symptoms:
 - Itchiness
 - Hives
 - Dizziness
 - Trouble breathing
 - Feel weak or like you're going to faint
 - Swelling or discomfort in the area where your IV was placed

At home

Drink plenty of liquids, especially water, for 24 hours after your CT scan. Drinking water will help remove the contrast from your body.

If you have any questions, contact a member of your care team directly. If you're a patient at MSK and you need to reach a provider after 5 p.m., during the weekend, or on a holiday, call 212-639-2000.

For more resources, visit www.mskcc.org/pe to search our virtual library.

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