



PATIENT & CAREGIVER EDUCATION

Computed Tomography (CT) Scan

This information will help you get ready for your computed tomography (CT) scan with or without oral or intravenous (IV) contrast.

About Your CT Scan

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

About Contrast

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 used for imaging studies. The contrast used for CT is an iodinated contrast (contrast that has iodine). Iodinated contrast (CT contrast) is different from contrast that you get during MRI exams.

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.

Iodinated contrast is usually given in 2 ways: orally (by mouth) and through an intravenous (IV) catheter (thin, flexible tube) in your arm or medical port. Most people need to drink it and get it through an IV for their CT scan.

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, if you are allergic to iodinated contrast.

You will start drinking the oral contrast 45 to 60 minutes before your CT scan. This will give the contrast solution time to move into your bowels (intestines).

If neither of the contrast solutions work for you, you will be given water.

IV contrast

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

Reactions to contrast

Some people can have an allergic reaction to contrast. Be sure to tell your doctor or nurse 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*

(www.mskcc.org/pe/allergic_reaction_contrast).

Before Your CT Scan

Tell your doctor if you have ever had an allergic reaction to iodinated contrast in the past. Also, tell them if you have kidney disease or poor kidney function.

The Day of Your CT Scan

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

What to expect

You may need to change into a gown before your CT scan.

If you're getting oral contrast, you will start drinking it 45 to 60 minutes before your CT scan.

If you're getting IV contrast, a member of your healthcare 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 will 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 may place an intravenous (IV) catheter into a vein in your arm or hand, unless you already have a central venous catheter (CVC). You will receive your contrast through your IV or CVC.

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 is.

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 will get the injection of contrast in your IV or implanted port. You may feel all over body warmth and have a mild metallic taste in mouth. Let your nurse know if there is an pain at your IV site or if you feel any unusual symptoms such as itchiness,

swelling, dizziness, difficulty breathing, or if you feel like you are going to faint.

A CT scan takes about 5 minutes.

After Your CT 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 an hour as long as there is no bleeding.

If you're not feeling well, or if you have any questions or concerns, talk with the nurse or technologist.

Let your nurse know if you have any of the following symptoms:

- Itchiness
- Hives
- Dizziness
- Difficulty 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 healthcare team directly. If you're a patient at MSK and you need to reach a provider after 5:00 PM, 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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