



PATIENT & CAREGIVER EDUCATION

Magnetic Resonance Imaging (MRI)

This information will help you get ready for your magnetic resonance imaging (MRI).

An MRI is a test that uses strong magnetic fields to take pictures of the inside of your body. It's used to see the type, size, and location of tumors. It's also used to check your response to certain treatments.

If you have any of the devices listed below, call 646-227-2323. It may not be safe for you to have an MRI.



- Pacemaker
- Automatic implantable cardioverter-defibrillator (AICD)
- Breast tissue expander
- Aneurysm clip

If an MRI is not safe for you, your doctor will order a different test. If you have any other questions about your MRI, call your doctor's office.

Before Your MRI

Getting ready for your MRI

- If you have a medical implant or device, ask the doctor who put it in for the implant card, or the exact name and manufacturer. If you don't have this

information before your MRI, you may need to reschedule it.

- During your MRI, you will be lying in one position for about 30 minutes to 1 hour. If you think you will be uncomfortable lying still or if you're afraid of being in a narrow or small space, talk with your doctor or nurse ahead of time. They may prescribe medication to help you feel more comfortable.
- If you wear a medication patch on your skin, you may need to remove it before your MRI. This is because metal in the patch may heat up during your MRI and cause burns. Make sure you have an extra medication patch with you to apply after your MRI.

Practice relaxation exercises

The MRI machine makes loud noises during the scan. This video shows relaxation exercises you can practice before your MRI. You can do these exercises during your scan to feel more comfortable.



Please visit www.mskcc.org/pe/relaxation_mri to watch this video.

Deep breathing

Deep breathing is an exercise that can help you relax during your MRI. You can practice deep breathing by following these steps:

1. Place 1 hand on your stomach, just above your belly button. If you're right-handed, use your right hand. If you're left-handed, use your left hand.
2. Breathe out completely through your mouth.
3. If you can, close your eyes and breathe in slowly and deeply through your nose. Feel your stomach push up on your hand. Imagine that air is filling your whole body from the bottom up.
4. Pause for a couple of seconds. Then, breathe out slowly through your mouth or nose. Try to breathe out completely and imagine the air leaving your lungs, mouth, or nose.
5. As you breathe out, allow your body to relax and go limp—like a rag doll.

6. Repeat this exercise 5 to 10 times.

Injections (shots) and medications before your MRI

You may need to have contrast dye or glucagon on the day of your MRI to help us get a clearer image. Your doctor or nurse will tell you if you will get these.

Contrast dye

Contrast is a special dye that makes it easier for your doctor to see differences in the organs inside your body. Depending on the reason for your MRI and which part of your body is being scanned, your doctor may want you to have your MRI with contrast. If your doctor ordered an MRI with intravenous (IV) contrast, the contrast dye will be injected into a vein in your arm or hand.

If you've had a reaction (such as hives) to MRI contrast in the past, tell your doctor or nurse.

Breastfeeding and contrast dye

Your doctor or nurse will ask you if you're pregnant or think you might become pregnant.

It's safe to receive contrast while breastfeeding. Some people choose not to breastfeed for 24 hours after receiving MRI contrast. If you're breastfeeding, talk to your doctor about your options.

Glucagon

You may get an injection of glucagon during your MRI. Glucagon is a hormone made by your body that raises blood sugar. During your MRI, the glucagon will relax the muscles in your stomach and intestines. This will make the pictures clearer. If you have diabetes or have not eaten the day of your MRI, you cannot get glucagon.

Microenema

If you're having an MRI of your pelvis, female reproductive organ (such as your uterus or ovaries), or rectum (the last part of your colon), you may need a microenema. A microenema is a liquid medication that you put in your rectum that makes you have a bowel movement (pass stool). Clearing out your bowels makes it

easier for your doctor to see the inside of your body during your MRI. If you will need a microenema, your doctor or nurse will explain what to expect and how to use it.

For People Receiving Anesthesia

If your healthcare provider told you that you would receive anesthesia (medication to make you sleepy) while you have your MRI, you must follow the additional instructions below.

Before Your MRI

Arrange for someone to take you home

You must have a responsible care partner take you home after your procedure. Make sure to plan this before the day of your procedure.

If you don't have someone to take you home, call one of the agencies below. They will send someone to go home with you. There's usually a charge for this service, and you will need to provide transportation.

Agencies in New York:

Partners in Care 888-735-8913

Caring People 877-227-4649

Agencies in New Jersey:

Caring People 877-227-4649

Instructions for eating and drinking before your procedure

Follow these instructions only if you're receiving anesthesia:

- Do not eat anything after midnight the night before your procedure. This includes hard candy and gum.
- Between midnight and up until 2 hours before your scheduled arrival time, you may drink a total of 12 ounces of water (see figure).
- Starting 2 hours before your scheduled arrival time, do not eat or drink anything. This includes water.



The Day of Your MRI

Things to remember

- Check the printed reminder your doctor or nurse gave you for the time and location of your MRI.
- If you wear a medication patch on your skin, bring an extra one with you.
- If your doctor prescribed medication to help you relax during your MRI, take it 30 to 60 minutes before your MRI.
- If you're getting a glucagon injection, make sure you eat breakfast or lunch before your MRI.
- Don't wear athletic wear, such as yoga pants, on the day of your MRI. Modern athletic wear and antimicrobial underwear may have metal parts that may heat up during your MRI.

What to expect

You will change into a hospital gown before going into the scanning area. For safety reasons, you will place your clothing, credit cards, and any items with metal

(such as your phone, jewelry, coins, and glasses) in a locker. This is because even a small amount of metal can fly into the magnet. The magnet can damage cell phones and credit cards.

Your technologist will bring you to the scanning room and help you onto the MRI table. The MRI machine is a large, donut-shaped magnet. It makes a loud tapping noise during the scan. Your technologist will offer you earplugs or headphones to listen to music.

Once you're comfortable on the MRI table, your technologist will slide it into the magnetic part of the machine and begin the scan. You will be able to speak with your technologist during the entire scan.

It's important to lie still and breathe normally during the scan. You may want to do your relaxation exercises during your MRI.

Your MRI will take 30 to 60 minutes.

After Your MRI

- When your MRI is finished, you will be helped off the table. After you get your belongings, you can leave.
- If you received anesthesia, you will be taken to the Post-Anesthesia Care Unit (PACU) after your MRI. You will stay there until you are fully awake.
- There are no restrictions after your MRI and no special care is needed.
- Your radiologist will send a report of your scan to your doctor. Your doctor will use the results of your MRI to help plan your care.

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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