Memorial Sloan Kettering Cancer Center

PATIENT & CAREGIVER EDUCATION

About Your Myelogram

This information will help you get ready for your myelogram at MSK.

What is a myelogram?

A myelogram is an imaging test of the spinal cord, nerves, and the tissues around them. A radiologist (RAY-dee-AH-loh-jist) or radiologist assistant will do your myelogram. A radiologist is a doctor with special training in using imaging to diagnose and treat disease.

During your myelogram, your doctor will give you an injection (shot) of contrast into your spinal canal. Contrast is a special dye that helps make the images from your scan clearer. As the contrast travels through your spinal canal, your doctor will take X-rays of your spine.

Contrast will leave your body through your urine (pee) within 24 hours (1 day).

Your healthcare provider will give you local anesthesia (A-nes-THEE-zhuh) before your procedure. Local anesthesia is medicine that numbs an area of your body. If you're

getting anesthesia, read “For people getting anesthesia” at the end of this resource. Talk with your healthcare provider about whether you’ll get anesthesia.

What to do before your myelogram

Tell your healthcare provider if you:

- Have an allergy to intravenous (IV) contrast dye or have had a reaction to contrast before. You may get medicine to lower your risk of having another allergic reaction. If you do, you’ll get a resource called *Preventing An Allergic Reaction to Contrast Dye* (https://mskcc.prod.acquia-sites.com/pe/allergic-reaction-contrast).
- Cannot lie flat on your stomach because of pain or breathing problems.
- Take prochlorperazine, such as Compazine®. You’ll need to stop taking it for 24 hours (1 day) before your procedure. Your healthcare provider will prescribe a different medicine if you need it.

Ask about your medicines

You may need to stop taking some of your usual medicines before your procedure. Or, you may need to take a different dose (amount) than usual. Talk with your healthcare provider about how to take your medicines

before your procedure. Do not change how you take your medicines without talking with a healthcare provider.

This section lists some examples of medicines, but there are many others. **Make sure your care team knows all the prescription medicines, over-the-counter medicines, and dietary supplements you take.** A prescription medicine is one you can only get with a prescription from a healthcare provider. An over-the-counter medicine is one you can buy without a prescription.



It's very important to take your medicines and supplements the right way in the days before your procedure. If you don't, we may need to reschedule your procedure.

Anticoagulants (blood thinners)

A blood thinner is a medicine that changes how your blood clots. Blood thinners are often prescribed to help prevent a heart attack, stroke, or other problems caused by blood clots.

If you take a blood thinner, ask your healthcare provider what to do before your procedure. They may tell you to stop taking it a certain number of days before your procedure. This will depend on the type of procedure you're having and the reason you're taking a blood thinner.

Here are some examples of blood thinners. There are others, so be sure your care team knows all the medicines you take. **Do not stop taking your blood thinner without talking with a member of your care team.**

- Apixaban (Eliquis®)
- Aspirin
- Celecoxib (Celebrex®)
- Cilostazol (Pletal®)
- Clopidogrel (Plavix®)
- Dabigatran (Pradaxa®)
- Dalteparin (Fragmin®)
- Dipyridamole (Persantine®)
- Edoxaban (Savaysa®)
- Enoxaparin (Lovenox®)
- Fondaparinux (Arixtra®)
- Heparin injection (shot)
- Meloxicam (Mobic®)
- Nonsteroidal anti-inflammatory drugs (NSAIDs), such as ibuprofen (Advil®, Motrin®) and naproxen (Aleve®)
- Pentoxifylline (Trental®)
- Prasugrel (Effient®)
- Rivaroxaban (Xarelto®)
- Sulfasalazine (Azulfidine®, Sulfazine®)
- Ticagrelor (Brilinta®)
- Tinzaparin (Innohep®)
- Warfarin (Jantoven®, Coumadin®)

Other medicines and supplements can change how your blood clots. Examples include vitamin E, fish oil, and nonsteroidal anti-inflammatory drugs (NSAIDs). Read *How To Check if a Medicine or Supplement Has Aspirin, Other NSAIDs, Vitamin E, or Fish Oil* (https://mskcc.prod.acquia-sites.com/pe/check-med-supplement). It will help you know which medicines and supplements you may need to

avoid before your procedure.

Diabetes medicines

You may be taking insulin or other diabetes medicines. If so, talk with your MSK healthcare provider and the healthcare provider who prescribes it. Ask them what to do before your surgery or procedure. You may need to stop taking the medicine or take a different dose (amount) than usual. You may also need to follow different eating and drinking instructions before your surgery or procedure. Follow your healthcare provider's instructions.

Your care team will check your blood sugar levels during your surgery or procedure.

GLP-1 medicines for weight loss

It's important to tell your healthcare provider if you take a GLP-1 medicine. You must follow special eating and drinking instructions before your surgery or procedure. **It is very important to follow these instructions. If you do not follow them, your surgery or procedure may be delayed or canceled.**

- **Follow a clear liquid diet the day before your surgery or procedure.** Do not eat any solid food. Read *Clear Liquid Diet* (https://mskcc.prod.acquia-sites.com/pe/clear-liquid-diet) to learn more.

- **Stop drinking 8 hours before your arrival time.** Do not eat or drink anything after this time, including clear liquids. You can have small sips of water with your medicines.

To learn more, read *Eating and Drinking Before Your Surgery or Procedure When Taking GLP-1 Medicines* (https://mskcc.prod.acquia-sites.com/pe/eat-drink-glp1).

Here are some examples of GLP-1 medicines. There are others, so be sure your care team knows all the medicines you take. Sometimes, these are prescribed to help manage diabetes or other conditions. Other times, they're prescribed for weight loss.

• Semaglutide (Wegovy®, Ozempic®, Rybelsus®) • Dulaglutide (Trulicity®)	• Tirzepatide (Zepbound®, Mounjaro®) • Liraglutide (Saxenda®, Victoza®)

Diuretics (water pills)

A diuretic is a medicine that helps control fluid buildup in your body. Diuretics are often prescribed to help treat hypertension (high blood pressure) or edema (swelling). They can also be prescribed to help treat certain heart or kidney problems.

You may be taking a diuretic. If so, ask the healthcare

provider doing your procedure what to do before your procedure. You may need to stop taking it the day of your procedure.

Here are some examples of diuretics. There are others, so be sure your care team knows all the medicines you take.

• Bumetanide (Bumex®) • Furosemide (Lasix®)	• Hydrochlorothiazide (Microzide®) • Spironolactone (Aldactone®)

Take devices off your skin

You may wear certain devices on your skin. Before your procedure, surgery, or scan, some 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 to bring an extra device with you to put on after your procedure, surgery, or scan.

You may not be sure how to manage your glucose (blood sugar) while your device is off. If so, before your appointment, talk with the healthcare provider who manages your diabetes care.

Breastfeeding and pregnancy

Your healthcare provider will ask you if you're pregnant or think you may be pregnant. If you are pregnant, your doctor may choose not to give you contrast. If you think you may be pregnant or plan to become pregnant, talk with your healthcare provider.

If you have questions, talk to your doctor about your options. You can also talk to the radiologist on the day of your MRI.

Travel

Talk with your healthcare provider if you have any plans to fly in an airplane within 24 hours of your procedure.

Tell us if you're sick

If you get sick (including having a fever, cold, sore throat, or flu) before your procedure, call your IR doctor. You can reach them Monday through Friday from 9 a.m. to 5 p.m.

After 5 p.m., during the weekend, and on holidays, call 212-639-2000. Ask for the Interventional Radiology fellow on call.

Note the time of your procedure

A staff member from General Radiology will call you 1 business day (Monday through Friday) before your procedure. If your procedure is scheduled on a Monday,

you'll be called on the Friday before.

The staff member will tell you what time you should arrive at the hospital for your procedure. They will also tell you where to go for your procedure. If you don't receive a call by noon the business day before your procedure, call 212-639-7298.

If you need to cancel your procedure for any reason, call the healthcare provider who scheduled it for you.

What to do the day of your procedure

You can eat a light meal before your procedure, unless your healthcare provider gives you other instructions. It's also important to remember that you'll be lying flat on your stomach during your procedure.

Where to go

Visit www.msk.org/parking for parking information and directions to all MSK locations.

Enter Memorial Hospital through the entrance at 425 East 67th Street. Take the R elevators to the 2nd floor. After you check-in at the reception desk, a staff member will bring you to the nursing unit.

What to expect when you arrive

Once you arrive at the hospital, doctors, nurses, and other staff members will ask you to state and spell your name and date of birth many times. This is for your safety. People with the same or similar names may be having procedures on the same day.

When it's time for your procedure, you will get a hospital gown and non-skid socks to wear. A staff member will bring you to the locker room.

You'll remove your clothes and change into a hospital gown. You'll place your clothing and all of your items (phone, jewelry, coins, glasses, bags) into a patient bag. Do not use any of the locker. Leave any valuables at home if you do not need them.

Your technologist will bring you to the scanning room and help you onto the fluoroscopy table.

In the procedure room

A member of your care team will go over the procedure with you and have you sign a consent form. This is a form that says you agree to the procedure and understand the risks.

Then, they will help you into position on the fluoroscopy table. The table is padded so you're comfortable during

the scan. Your technologist will safely secure you to the table with special ankle and foot braces. This is because the table will tilt during your scan.

A radiologist will clean your lower back with an antiseptic solution, which kills germs and bacteria. They will give you an injection of local anesthetic in your lower back to numb the area. Once the area is numb, your radiologist will guide a needle into your spinal canal. You may feel a little pressure in your lower back. You must stay still.

When the needle is in place, your radiologist will remove a small amount of spinal fluid from your spinal canal. They will use the same needle to inject contrast dye. Then, they will remove the needle and cover the area with a bandage or dressing.

The technologist will tilt the fluoroscopy table to help the contrast travel throughout your spinal canal. Your radiologist will watch the flow of the contrast on a TV monitor and take X-rays of your spine.

After your myelogram is finished, your care team will move you onto a stretcher. They will take you to have a computed tomography (CT) scan of your spine. It's important to stay still during the scan.

The whole procedure will take about 30 to 40 minutes.

If you have a radiation simulation appointment after your myelogram, a staff member will take you there on a stretcher.

What to do after your myelogram

After your myelogram and CT scan, you'll change back into your clothes and get anything you brought with you. If you have a radiation simulation appointment, you will change there.

Side effects

You may get a headache after your myelogram. Sometimes this headache may make you feel nauseous (feeling like you might throw up). If you do get a headache, you can lie down, or try these things.

Pain medicine

Take an over-the-counter pain medicine, such as acetaminophen (Tylenol®). Over-the-counter medicine is medicine you can get without a prescription. Check with your healthcare provider before taking acetaminophen. If you have liver problems, it may not be safe for you to take.

Do not take more than 3,000 mg of acetaminophen in a 24 hour period.

Have caffeine

Try drinking 1 to 2 cups of drinks that have caffeine, such as coffee, tea or soda. If your headache does not get better within 2 days, call your healthcare provider.

Do not take NSAIDs such as ibuprofen (Advil®, Motrin®) for 24 hours after your myelogram. NSAIDs can cause bleeding and keep the needle insertion site from healing properly. Read *How To Check if a Medicine or Supplement Has Aspirin, Other NSAIDs, Vitamin E, or Fish Oil* (https://mskcc.prod.acquia-sites.com/pe/check-med-supplement) to learn more.

How to care for yourself at home

You can continue your usual diet after your myelogram, unless your healthcare provider gives you other instructions.

For the first 24 hours after your myelogram:

- Do not shower or put your body in water, such as in a bathtub, pool, or hot tub.
- Do not take any NSAIDs.
- Avoid bending over or doing strenuous activities. Do not do any heavy work, play, or lift heavy objects.
- Do not drive a car or operate any heavy machinery. Get a ride or take public transportation instead, if you can.

- Do not travel in an airplane.
- Try to drink at least 8 to 10 (8-ounce) glasses of liquids, unless your healthcare provider gives you different instructions.
- Do not drink alcohol.

After 24 hours, you may shower and remove the bandage.

Getting your results

Your radiologist will send a report of your scan to your healthcare provider. Your healthcare provider will use the results of your myelogram to help plan your care. Your results will be available within 5 days.

When to call your healthcare provider

Call your healthcare provider if you have any of the following:

- A fever of 100.4° F (38 °C) or higher.
- Redness, swelling, or discharge in the area where the needle was placed on your back. This can be a sign of infection.
- Blood or fluid leaking from the area where the needle was placed on your back. A small amount of blood on your bandage is normal though.

- Pain that doesn't go away after taking pain medicine.
- Numbness or tingling in your lower back or legs.
- A headache that lasts longer than 2 to 3 days.

For people getting anesthesia

If you are getting anesthesia (medication to make you sleepy) during your procedure, follow these instructions.

What to do the day before your procedure

Arrange for someone to take you home

You must have a responsible care partner take you home after your procedure. A responsible care partner is someone who can help you get home safely. They should be able to contact your care team if they have any concerns. Make sure to plan this before the day of your procedure.

If you don't have a responsible care partner to take you home, call one of the agencies below. They'll send someone to go home with you. There's a charge for this service, and you'll need to provide transportation. It's OK to use a taxi or car service, but you still need a responsible care partner with you.

Agencies in New York	Agencies in New Jersey
VNS Health: 888-735-8913	Caring People: 877-227-4649
Caring People: 877-227-4649	

Instructions for eating

Important: If you take a GLP-1 medicine, do not follow these instructions. Follow the instructions in *Eating and Drinking Before Your Surgery or Procedure When Taking GLP-1 Medicines* (https://mskcc.prod.acquia-sites.com/pe/eat-drink-glp1) instead.



Stop eating at midnight (12 a.m.) the night before your surgery or procedure. This includes hard candy and gum.

Your healthcare provider may have given you different instructions for when to stop eating. If so, follow their instructions. Some people need to fast (not eat) for longer before their surgery or procedure.

What to do the day of your procedure

Instructions for drinking

Important: If you take a GLP-1 medicine, do not follow these instructions. Follow the instructions in *Eating and Drinking Before Your Surgery or Procedure When Taking GLP-1 Medicines* (https://mskcc.prod.acquia-sites.com/pe/eat-drink-glp1) instead.

Between midnight (12 a.m.) and 2 hours before your arrival time, only drink the liquids on the list below. Do not eat or drink anything else. Stop drinking 2 hours before your arrival time.

- Water.
- Clear apple juice, clear grape juice, or clear cranberry juice.
- Gatorade or Powerade.
- Black coffee or plain tea. It's OK to add sugar. Do not add anything else.
  - Do not add any amount of any type of milk or creamer. This includes plant-based milks and creamers.
  - Do not add flavored syrup.

If you have diabetes, pay attention to the amount of sugar in your drinks. It's easier to control your blood sugar levels if you include sugar-free, low-sugar, or no added sugar versions of these drinks.

It's helpful to stay hydrated before surgeries and procedures, so drink if you're thirsty. Do not drink more than you need. You'll get intravenous (IV) fluids during your surgery or procedure.



Stop drinking 2 hours before your arrival time. This includes water.

Your healthcare provider may have given you different instructions for when to stop drinking. If so, follow their instructions.

If you have questions or concerns, contact your healthcare provider. A member of your care team will answer Monday through Friday from 9 a.m. to 5 p.m. Outside those hours, you can leave a message or talk with another MSK provider. There is always a doctor or nurse on call. If you're not sure how to reach your healthcare provider, call 212-639-2000.

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

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