Memorial Sloan Kettering Cancer Center

PATIENT & CAREGIVER EDUCATION

Percutaneous Needle Biopsy

This information will help you get ready for your percutaneous (pur-kyoo-tay-nee-uhs) needle biopsy procedure at MSK.

What is a percutaneous needle biopsy?

A percutaneous needle biopsy is a procedure to collect cells or tissue samples for testing. An interventional radiologist, physician assistant or radiologist assistant will do your procedure. An interventional radiologist, also called an IR doctor, is a doctor with special training in image-guided procedures. They will place a needle through your skin to collect a sample of tissue.

The person doing your procedure will use real-time imaging to guide the needle. Real-time imaging is imaging that takes a moving picture, like a video, instead of a still image.

You may have a:

- Real-time computed tomography (CT) scan.
- Real-time magnetic resonance imaging (MRI) scan.
- Real-time ultrasound.
- Fluoroscopy (real-time X-ray).

A percutaneous needle biopsy usually takes less than 1 hour. You may be at the hospital for up to 4 hours on the day of your procedure. This includes prep time and recovery time.

What to do before your percutaneous needle biopsy

Your healthcare provider will talk with you about your procedure and what to expect. They will answer any questions you have before you sign a consent form. A consent form is a form that says you agree to the procedure and understand the risks.

Ask about your medicines

You may need to stop taking some of your usual medicines before your procedure. Talk with your healthcare provider about which medicines are safe for you to stop taking.

We've included some common examples below, but there are others. Make sure your care team knows all the prescription and over-the-counter medicines 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 is very important to take your medicines the right way in the days leading up to your procedure. If you don't, we may need to reschedule your procedure.

Anticoagulants (blood thinners)

A blood thinner is a medicine that changes the way 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 the healthcare provider doing your procedure what to do before your procedure. They may tell you to stop taking the medicine 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.

We've listed some examples of common blood thinners below. 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). Ibuprofen (Advil®, Motrin®) and naproxen (Aleve®) are examples of NSAIDs, but there are many others.

Read *How To Check if a Medicine or Supplement Has Aspirin, Other NSAIDs, Vitamin E, or Fish Oil* (www.mskcc.org/pe/check-med-supplement). It will help you know which medicines and supplements you may need to avoid before your procedure.

Diabetes medicines

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

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

GLP-1 medicines for weight loss

It's important to tell the healthcare provider doing your procedure if you take a GLP-1 medicine for weight loss. You will need to follow special instructions before your procedure. **It is very important to follow these instructions. If you do not follow them, your procedure may be delayed or canceled.**

- You may need to stop taking the GLP-1 medicine before your procedure. Your healthcare provider will tell you when you can start taking it again.
- You will need to follow different eating and drinking instructions than the ones later in this resource. It is very important to follow these different instructions.
  - The day before your procedure, follow a clear liquid diet. Do not eat any solid food. Read *Clear Liquid Diet* (www.mskcc.org/pe/clear-liquid-diet) to learn more.
  - **After midnight (12 a.m.), do not eat or drink anything.** 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* (www.mskcc.org/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. Some of these are meant to be used to help manage diabetes but are sometimes prescribed just 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.

If you take a diuretic, 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.

We've listed some examples of common diuretics below. 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 scan or procedure, 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 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.

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

VNS Health: 888-735-8913
Caring People: 877-227-4649

Agencies in New Jersey

Caring People: 877-227-4649

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 appointment

A staff member will call you 2 business days before your procedure. If your procedure is scheduled for a Monday, they'll call you on the Thursday before. They'll tell you what time to get to the hospital for your procedure. They will also remind you where to go.

Use this area to write down the date, time, and location of your procedure:

If you don't get a call by noon (12 p.m.) on the business day before your procedure, call 646-677-7001. If you need to cancel your procedure for any reason, call the healthcare provider who scheduled it for you.

What to do the day before your percutaneous needle biopsy

Instructions for eating

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

Stop eating at midnight (12 a.m.) the night before your 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 procedure.

What to do the day of your percutaneous needle biopsy

Instructions for drinking

Important: If you take a GLP-1 medicine for weight loss, do not follow these instructions. Follow the instructions in *Eating and Drinking Before Your Surgery or Procedure When Taking GLP-1 Medicines* (www.mskcc.org/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 honey.
  - Do not add flavored syrup.

If you have diabetes, pay attention to the amount of sugar in your drinks. It will be 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 procedures, so drink if you are thirsty. Do not drink more than you need. You will get intravenous (IV) fluids during your 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.

Things to remember

- Take only the medicine your doctor told you to take the morning of your procedure. Take them with a few sips of water.
- Do not use body creams, lotions, or petroleum jelly (Vaseline®). You can use deodorant and facial moisturizers.
- Do not wear eye makeup.

- Take off any jewelry, including body piercings.
- Leave any valuable items you do not need at home.
- If you wear contact lenses, wear your glasses instead, if you can.

What to bring with you

- Any medicine you are taking for breathing problems and chest pain, such as inhalers.
- A case for your glasses or contacts.
- Denture glue, if you wear dentures.
- Your Health Care Proxy form, if you have filled one out.
- Your CPAP or BiPAP machine if you use one. If you cannot bring yours with you, we will give you one to use while you're in the hospital.

What to expect when you arrive

Many staff members will ask you to say and spell your name and date of birth. This is for your safety. People with the same or similar names may be having procedures on the same day.

Meet with a nurse

You'll meet with a nurse before your procedure. Tell them the dose of any medicines you took after midnight (12 a.m.) and the time you took them. Make sure to include prescription and over-the-counter medicine, patches, and creams.

Your nurse may place an intravenous (IV) line in one of your veins, usually in your arm or hand. If your nurse does not place the IV, your anesthesiologist will do it in the procedure room.

Get ready for your percutaneous needle biopsy

You'll remove any hearing aids, dentures, prosthetic devices, wig, and religious articles. Your care team will bring you to the procedure room.

Inside the procedure room

A member of your care team will help you onto the procedure table. You'll get sedation through your IV. Sedation is medicine to help you feel calm during your procedure. You'll also get fluids through your IV during and after your procedure.

Your care team will clean the skin around the biopsy area. They will give you an injection (shot) of local anesthesia (medicine to numb the area).

Your IR doctor will put the biopsy needle through your skin. They will use real-time images to guide the needle into place and collect the tissue sample. You may hear a loud clicking noise as they do this. They will check the sample to make sure there is enough tissue. They may need to take more than one sample.

When the procedure is finished, they will remove the needle. Your care team will clean the biopsy area and cover it with a bandage.

What to do after your percutaneous needle biopsy

In the Post-Anesthesia Care Unit (PACU)

You'll be in the PACU when you wake up after your procedure. A nurse will be keeping track of your temperature, pulse, blood pressure, and oxygen levels. You may get oxygen through a tube resting below your nose or a mask over your nose and mouth.

Tell your nurse if you are feeling pain. They may give you medicine for your pain.

Your care team will tell you when it's safe to go home. You will need a responsible care partner to go with you.

At home

- You can go back to your normal diet right away.
- Do not take a tub bath or put the biopsy area under water for 24 hours (1 day) after your procedure.
- You can shower the day after your procedure. Take off the bandage before you shower. Replace it with a clean, dry adhesive bandage (Band-Aid®) after your shower.
- You can go back to doing your normal activities the day after the procedure.
- If you take a blood thinner, follow your care team's instructions for how to safely keep taking it.

Getting your results

Your care team will send your sample to a lab to be tested. Results are usually ready in 5 to 7 business days. Your care team will call you with your results or talk with you about them at your follow-up visit.

When to call your healthcare provider

Call your healthcare provider who did your biopsy if:

- You have a fever of 100.4 °F (38 °C) or higher.
- You have chills.
- The biopsy site is getting more painful.
- You feel lightheaded or dizzy.
- The biopsy site drains fluid.
- The biopsy site becomes warm or swollen.
- You have any new symptoms.
- You have any questions or concerns about your procedure.

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.

Percutaneous Needle Biopsy - Last updated on September 18, 2025

All rights owned and reserved by Memorial Sloan Kettering Cancer Center