PATIENT & CAREGIVER EDUCATION

About Your Histotripsy Procedure

This resource explains your histotripsy (HISS-toh-trip-see) procedure at MSK. It also explains what to expect and how to get ready.

What is a histotripsy?

A histotripsy is a non-invasive procedure that uses strong sound waves to destroy liver tumors. Non-invasive means you will not have any incisions (cuts) during your procedure.

An interventional radiologist, also called an IR doctor, will do your histotripsy procedure. An IR doctor is a doctor with special training in using image-guided procedures to diagnose and treat disease. You'll meet with them before your procedure to learn about what to expect.

Your IR doctor will use images from magnetic resonance imaging (MRI) or computed tomography (CT) scans you've had. This will help them find the tumor and decide the size of the area that needs to be treated.

You'll get general anesthesia (A-nes-THEE-zhuh) before your histotripsy. General anesthesia is medicine to make you sleep. Your care team will check your blood glucose (blood sugar) levels before and after your procedure.

During your procedure, your doctor will use ultrasound to find the liver tumors and guide the sound waves. They'll put a water-filled pad on your abdomen (belly) in the area over your liver. This helps the sound waves pass to the treatment area.

Then, your IR doctor will place a treatment head inside the pad. The treatment head sends out the sound waves and kills only the tissue your doctor chose.

What to do before your histotripsy procedure

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.

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.

Weight loss medicines

If you take medicine for weight loss (such as a GLP-1 medicine), talk with the healthcare provider doing your procedure. Ask them what to do before your procedure. You may need to stop taking it, follow different eating and drinking instructions before your procedure, or both. Follow your healthcare provider's instructions.

We've listed some examples of medicines that cause weight loss below. 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.

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.

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.

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 histotripsy procedure

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* (www.mskcc.org/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 histotripsy 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* (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 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.

Where to go

Your procedure will take place at:

David H. Koch Center
530 E. 74th St.
New York, NY 10021

Take the elevator to the 8th floor.

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

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.
- Don't put on any cream (thick moisturizer) or petroleum jelly (Vaseline®). You can use deodorant and light moisturizers.
- Don't wear eye makeup.
- Remove any jewelry, including body piercings.
- Leave valuable items at home if you do not need them. This includes extra credit cards, extra cash, and jewelry.
- If you wear contact lenses, wear your glasses instead, if you can. If you don't have glasses, please bring a case for your contacts.

What to bring

- A list of the medicine you take at home.
- Medicine for breathing problems (such as inhalers), chest pain, or both.
- A case for your glasses or contacts, if you wear them.
- Your Health Care Proxy form, if you 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.

When it's time, you'll change into a hospital gown, robe, surgical head covering, and nonskid socks.

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.

Meet with an anesthesiologist

You will also meet with an anesthesiologist (A-nes-THEE-zee-AH-loh-jist). An anesthesiologist is a doctor with special training in anesthesia. They'll give you anesthesia during your procedure. They'll also:

- Review your medical history with you.
- Ask if you've had any problems with anesthesia in the past. This includes nausea (feeling like you're going to throw up) or pain.
- Talk with you about your comfort and safety during your procedure.
- Talk with you about the kind of anesthesia you'll get.
- Answer questions you have about anesthesia.

Going into the procedure room

When it's time for your procedure, you'll remove your hearing aids, glasses, and dentures, if you have them. You'll either walk into the procedure room or a staff member will bring you there on a stretcher.

Inside the procedure room

A member of your care team will help you onto the bed. Once you're comfortable, your anesthesiologist will give you anesthesia through your IV line. You'll also get fluids through your IV line during and after your procedure. Once you're asleep, your IR doctor will do your histotripsy.

Your IR doctor may place a Foley catheter in your urethra going into your bladder. A Foley catheter is a thin, flexible tube that drains urine (pee) from your bladder. This helps your care team keep track of how much urine you're making. They'll remove the catheter once your procedure is finished.

What to do after your histotripsy procedure

In the Post-Anesthesia Care Unit (PACU)

You'll be in the PACU when you wake up after your procedure. A nurse will keep 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. You may also have compression boots on your lower legs.

Tell your nurse if you're feeling pain. They may give you medicine for your pain. Your nurse will take out your IV before you leave the hospital.

Ask your nurse how long you can expect to stay in the PACU. If you're staying in the hospital overnight, a staff member will bring you to a hospital room. If you're leaving the same day, your healthcare provider will tell you when it's safe to do so. You will need a responsible care partner to go with you.

Follow-up tests and visits

You'll have follow-up imaging tests and doctor's visits. These are to make sure the treatment has killed the tumors. Call your doctor's office if you do not already have your follow-up imaging tests set up.

When to call your healthcare provider

Call the IR doctor who did your procedure if you have any of these after your histotripsy:

- A fever of 100.4 °F (38.3 °C) or higher.
- Trouble breathing.
- Severe itching or swelling.
- Numbness.
- Slurred speech.
- Trouble swallowing.
- Pain that's worse than it was before your treatment.
- Nausea (feeling like you're going to throw up), or vomiting (throwing up) that's worse than it was before your treatment.
- Skin rash at the procedure site that gets worse.
- Urine that gets darker and darker.
- Any new symptoms.
- 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.

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