Memorial Sloan Kettering Cancer Center

PATIENT & CAREGIVER EDUCATION

About Bone Marrow Harvesting

This information explains what to expect before, during, and after your bone marrow harvesting at Memorial Sloan Kettering (MSK). In this resource, the words “you” and “your” refer to you or your child.

About Bone Marrow

Bone marrow is soft, spongy tissue. It’s found in the center of the larger bones in your body (such as your hip, breastbone, and pelvis). Bone marrow has many stem cells in it. Stem cells are immature cells that make all the blood cells in your body. This includes:

- White blood cells that help your body fight infections and other diseases.
- Red blood cells that carry oxygen from your lungs to the rest of your body.
- Platelets that stop you from bleeding and help your wounds heal.

About Bone Marrow Harvesting

Bone marrow harvesting is a procedure to harvest (collect) stem cells from your bone marrow. The stem cells are then used for a stem cell transplant. They can be used for either an autologous (aw-TAH-luh-gus) or an allogeneic (A-loh-jeh-NAY-ik) transplant.

- In an autologous stem cell transplant, your stem cells are harvested and then given back to you on the day of your transplant. The stem cells that are put back into your body will grow and mature into new blood cells.
- In an allogeneic stem cell transplant, your stem cells are harvested and

then donated (given) to the person who's getting the transplant. Your body will naturally replace the stem cells you donated within 2 to 3 months after your procedure.

Bone marrow can be collected from different places on your body, such as the front and back of your hips, and your breastbone. These places are called harvest sites. The most common harvest site is the back of the hips.

Before Your Procedure

Ask about your medications

Make sure your healthcare provider knows all the medications you're taking. This includes prescription and over-the-counter medications, patches, and creams. Ask if you should stop taking any of your medications before your procedure. Some medications may suppress bone marrow (reduce the number of stem cells in your bone marrow). If you're taking one of these medications, you'll need to stop taking it for a short time.

Some medications can cause bleeding problems during or after your procedure. Examples are:

- Aspirin and medications that contain aspirin
- Nonsteroidal anti-inflammatory drugs (NSAIDs) such as ibuprofen (Motrin®, Advil®) and naproxen (Aleve®)
- Vitamin E
- Blood thinners (anticoagulants)

Tell your healthcare provider if you're taking any of these medications. Don't take them unless your healthcare provider says it's okay. They'll give you information about what medications you can take instead.

Allergies

If you have any allergies, talk with your healthcare provider 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

VNS Health: 888-735-8913

Caring People: 877-227-4649

Agencies in New Jersey

Caring People: 877-227-4649

Have your blood drawn, if needed

If you’re donating stem cells for someone else (for an allogeneic stem cell transplant), you may need to have 1 unit (about 1 pint) of blood drawn before your procedure. This will be done at least 1 week before your procedure.

Your blood will be given back to you after your procedure if your healthcare providers think you need it. It will help raise your blood counts (the number of blood cells in your bloodstream). Your healthcare provider will talk with you about this.

The Day Before Your Procedure

Instructions for eating and drinking: 8 hours before your arrival time



- **Stop eating 8 hours before your arrival time, if you have not already.**
  - Your healthcare provider may tell you to stop eating earlier. If they do, follow their instructions.
- 8 hours before your arrival time, do not eat or drink anything except these clear liquids:
  - Water.
  - Soda.
  - Clear juices, such as lemonade, apple, and cranberry juices. Do not drink orange juice or juices with pulp.
  - Black coffee or tea (without any type of milk or creamer).
  - Sports drinks, such as Gatorade®.
  - ClearFast CF(Preop)® or Ensure® Pre-Surgery clear carbohydrate drink.
  - Gelatin, such as Jell-O®.

  You can keep having these until 2 hours before your arrival time.

Instructions for drinking: 2 hours before your arrival time



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

The Day of Your Procedure

Your procedure will be done in the operating room at Memorial Hospital (MSK's main hospital).

You'll get general anesthesia (medication that makes you sleep) before your procedure starts. Once you're asleep, your doctors will position your body so they can reach your harvest site(s). If your harvest site is the back of your hip, they'll move you so that you're lying on your stomach.

Once you're in the right position, 2 doctors will put a needle through your skin and into the harvest site(s) to take out the bone marrow. They'll do this a few times to collect enough marrow.

The procedure usually takes about 60 to 90 minutes.

After Your Procedure

When you wake up, you'll be in the Post Anesthesia Care Unit (PACU). While you're in the PACU, you may:

- Be sore at your harvest site(s). Your nurse will give you pain medication to help with any discomfort.
- Feel nauseous (like you're going to throw up). Your nurse will give you anti-nausea medication to help with this.
- Need intravenous (IV) fluids. Your nurse will give you fluids through an IV line placed in your vein.
- Need a blood transfusion (when blood is put into your body through a needle in your vein). If your blood was drawn before your procedure, that blood will be given back to you.

You'll go home once you're awake and able to eat and drink. You'll get a prescription for pain medication to take home with you.

Caring for yourself at home

- Don’t shower for 24 hours after your procedure. After 24 hours, shower and then take off your dressings.
- Take your pain medication as directed. This will help with pain or stiffness.
- Follow your healthcare provider’s instructions for when you start taking aspirin, medications containing aspirin, NSAIDs, blood thinners, or vitamin E again.
- Drink at least 6 to 8 (8-ounce) glasses of liquids every day for 4 days after your procedure.
- Don’t do any strenuous exercise (such as running, jogging, or aerobics) or play any contact sports (such as football, soccer, or basketball) for 1 week after your procedure. You can do light exercise, such as walking.
- Don’t soak in a pool, bathtub, or hot tub for 1 week after your procedure.
- Eat a well-balanced diet high in iron (such as red meat and spinach) for 2 months after your procedure. Ask your healthcare provider about taking iron supplements and other vitamins. For more information, read the resource *Iron in Your Diet* (www.mskcc.org/pe/iron_diet).

When to Call Your Healthcare Provider

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

- Any redness, bleeding, drainage, or pain at your harvest site(s) that’s getting worse or not getting better after 1 day
- Chills
- A fever of 100.4 °F (38 °C) or higher
- A cough that doesn’t go away

If you have any questions, contact a member of your care team directly. If you're a patient at MSK and you need to reach a provider after 5 p.m., during the weekend, or on a holiday, call 212-639-2000.

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

About Bone Marrow Harvesting - Last updated on December 12, 2022
All rights owned and reserved by Memorial Sloan Kettering Cancer Center