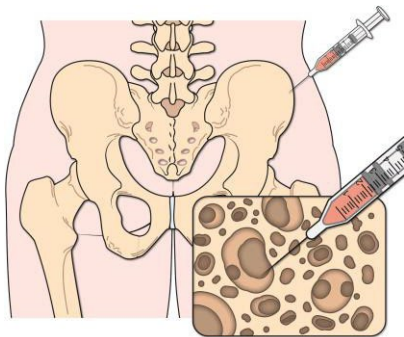


Marrow Stem Cell Collection

This handout will explain how we will collect your marrow stem cells that you are donating to another person. This handout will also tell you what needs to be done before and after your marrow collection. If you have any questions, please ask your doctor or nurse.

Bone Marrow

Bone marrow is a spongy, liquid tissue that is found inside bones such as the breastbone, skull, ribs, spine, and hip bones. The bone marrow contains many types of cells including stem cells. Stem cells are “parent” cells that produce the blood cells: red cells, white cells, and platelets. The safest place to collect marrow stem cells is from the hip bone.



Before the Collection

You will need to be assessed in the Stem Cell Transplant Clinic. You will meet with a doctor or nurse practitioner for a “donor evaluation”.

This visit will include:

- **Lab work.** You will have a blood and a urine test. This may include a pregnancy test. Not all results are ready right away. We will call you in a few days with the results.
- **Chest x-ray and/or ECG.** You may need this test depending on your age and health history.
- **Health history and brief physical exam.** The nurse practitioner (NP) or doctor will talk with you about your test results and explain the marrow stem cell collection process. If you have a low hemoglobin or you are anemic, we may tell you to take iron tablets.
- **Donor questionnaire.** You will complete a series of questions about health habits.

Once the clinic visit is complete, you will go home. All the information from the clinic visit will be used to figure out if you can donate bone marrow. We will call you with test results and the date for collection.

You might not be able to donate if you have:

- Cardiopulmonary (heart/lung) disease
- Uncontrolled hypertension (high blood pressure)
- A psychosocial disorder

You/your child **cannot** be a donor if you have HIV or active hepatitis (liver infections).

Do not get any tattoos or body piercings before your collection as it could affect your eligibility for donation. Do not drink excessive alcohol or use illegal drugs. You should not smoke cigarettes, e-cigarettes, or marijuana. If there are any concerns about your health, including high risk habits or behavior, please tell the doctor, nurse practitioner, or transplant navigator.

Night Before the Collection

A nurse from First Day Surgery will call you the day before the procedure. They will remind you what to do and where and when you should arrive. If you do not get a call by **3 pm**, call First Day Surgery at **(608) 265-8857**.

You will need to shower and scrub your back and hipbones with soap to clean your skin. We will give you a package of antiseptic soap at your clinic visit. Please tell your nurse if you have a soap allergy. Pack loose fitting clothes to wear after the marrow collection.

You may want to bring a pillow to place behind your back for the drive home.

After midnight, do not eat or drink anything. You can take your usual medicine with a small sip of water. You can brush your teeth, but do not swallow the water.

Collection Day

Your day may begin early. You will come into the hospital and go to the First Day Surgery Unit located on the 2nd or 3rd floor. A nurse will ask you to put on a hospital gown. We will ask you to remove any jewelry, glasses, or dentures.

A doctor will talk to you about the procedure again and ask if you have any questions. The doctor will repeat the risks and benefits of this procedure with you and

ask if you understand them. You will be asked to complete a consent form.

We will start an IV that we can use to give fluids and medicines. Once the operating room (OR) is ready, we will move you onto a cart into the OR.

In the OR we will give you medicine through your IV to put you fully asleep. You will have a tube in your throat to help you breathe. We will turn you onto your stomach. We will cover you to keep you warm. Only your lower back will be uncovered.

We will make a nick mark on your skin over each hip bone. We will put a needle through the nick mark into the hipbone. Inside the bone is the liquid bone marrow, which contains stem cells. We will remove about one liter of marrow, but may be more or less depending on the recipient. This process is called the “harvest.” We will use the same nick marks during the harvest with the needle angled each time to a new site on the bone. This process takes about 1-2 hours.

After we remove enough stem cells, small pieces of tape, called steri-strips, will hold the skin together at nick mark sites. A large dressing will cover the whole area. We will take you to the recovery room. You might spend 4-6 hours there. You can have one support person with you.

After the Collection

In the recovery room you may feel tired, sleepy, stiff, and sore around the harvest sites. You may have a sore throat from the breathing tube. You will receive IV fluids until you are able to drink. Your nurse will help you get out of bed for the first time in case you are lightheaded. The nurse will help you walk to the bathroom and around your room. Getting up and moving about helps you heal faster. Patients say walking

often feels better than sitting or lying down.

Because you had general anesthesia, you may have nausea. The nurses can give you medicine to help. You may have trouble passing urine right away. This should get better within a few hours. You will have the IV until you can take in enough food and fluids.

You will feel some pain at the harvest sites. You may receive pain medicine through your IV if the pain is severe. Let your nurse know if you have pain. You may use acetaminophen or ibuprofen at home.

Going Home

Many donors can go home the same day as their donation. Sometimes, you may be admitted to the hospital for one night for observation and recovery.

You will need someone to drive you home. Before leaving, you will need to be eating, drinking, and urinating. The marrow harvest sites need to be dry.

Home Care

You will have a dressing over each harvest site. Keep the dressings in place for 24 hours after the harvest. You may shower 24 hours after the harvest. Keep the dressings on while you shower. After you shower the dressing will be easier to remove.

You will have steri-strips under the dressing. Leave them in place. They will fall off over the next few days. Check the nick marks daily for signs of swelling, redness, or increased pain.

We will send you home with gauze dressings, tape, and an ice pack. Place the gauze over the steri-strips. Secure with tape. It is very common for the sites to ooze blood for 1-2 days after the harvest. It will stop

with pressure.

You can use an ice pack for the first two days after the harvest. The ice will limit bruising and help with pain.

You might find it hard to sit in a chair for long amounts of time or to climb stairs. Slowly increase your activity without doing too much. You can resume any activity that does not make your back hurt. Most patients say it feels better to keep moving rather than to sit or lie in bed. To decrease muscle stiffness, walk often.

Avoid any activity that puts stress on the lower back and hips. Avoid jogging, heavy lifting or turning, for about one week. Resume your normal routine after 3-4 days.

You can resume driving when you are not taking pain medicines and you are not dizzy or light-headed.

Resume your normal eating and drinking. Drink one to two quarts of fluid daily for 3-4 days. The extra fluids will help with any dizziness. If you are taking iron tablets, take for about two weeks after the harvest.

If you have pain, take the pain medicine sent home with you as directed. Most people use acetaminophen (regular or extra-strength), or ibuprofen. Follow the instructions on the package.

If you feel tired, rest during the day. It takes about 2 weeks to feel the same as you did before the harvest.

Your bone marrow will take a few days to recover from the harvest. Your white blood cell count and platelet count will not be lowered by the harvest, but the red blood cell count will be lower after the harvest. The count should return to your baseline

within two weeks. Bone marrow is like blood – if some is removed, you will only make more. Your team may talk to you about taking iron tablets to help your red blood cell count recovery faster. The side effect of iron tablets can be constipation.

You will not need to see a doctor unless you have problems. You will have a follow-up phone call to see how you are doing.

What happens to the stem cells after they are collected?

The marrow stem cells are taken to the stem cell lab to be processed. If at any point the recipient cannot use the stored cells, UW Health will dispose of them. UW Health will try to contact you and the recipient or recipient's doctor. They will use the most current address on file in UW Health's computer system before disposal or release for research.

Costs

The recipient's health insurance covers the cost of the bone marrow harvest. If you have any questions about cost, you should ask the transplant navigator.

When to Call

Call if you have any questions or problems.

Who to Call

UW Cancer Clinics

(608) 265-1700

Your health care team may have given you this information as part of your care. If so, please use it and call if you have any questions. If this information was not given to you as part of your care, please check with your doctor. This is not medical advice. This is not to be used for diagnosis or treatment of any medical condition. Because each person's health needs are different, you should talk with your doctor or others on your health care team when using this information. If you have an emergency, please call 911. Copyright © 2/2024 University of Wisconsin Hospitals and Clinics Authority. All rights reserved. Produced by the Department of Nursing. HF#5207