

Bone Marrow Harvest

What is Bone Marrow?

Bone marrow is the flexible tissue found in the center of your bones. New blood cells form in your blood marrow every day. Some blood cells remain in the marrow and some are released into the bloodstream to replace worn out cells. Bone marrow makes stem cells, red blood cells, white blood cells, and platelets.

- Red blood cells carry oxygen to all parts of the body.
- White blood cells help fight infections.
- Platelets help blood clot and prevent bleeding.

What is a Bone Marrow Harvest?

A **bone marrow harvest** is the removal and collection of bone marrow. The collected marrow is filtered and then is either given to the patient or stored until it is re-infused during a bone marrow transplant (BMT).

Bone marrow is collected by inserting a needle through the skin into the inner cavity of the bone. The back of the hip bone (iliac crest) is commonly used. However, the front of the sternum (breast bone) may also be used.

Before the Bone Marrow Harvest

- Do not take aspirin or any products containing aspirin for 7 days before the harvest procedure.
- We will do a complete medical history, a physical exam, and take blood for testing. Blood tests include screening for hepatitis and HIV.
- Tell your health care professional if you are breast feeding, pregnant, or attempting to conceive a child.
- You will also have a chest x-ray and an electrocardiogram (ECG).
- You will visit with an anesthesiologist to discuss the type of anesthesia you will receive during the procedure.
- You may be asked to donate blood for a transfusion (autologous blood transfusion) that you will receive after the procedure.
- Do not eat or drink anything after the time instructed by your anesthesiologist. The time to stop eating and drinking will depend on your procedure time.

Bathing Instructions: Night Before and Morning of Your Bone Marrow Harvest

Studies show that repeated use of antiseptic/antimicrobial skin solution reduces bacterial counts on the skin, not only immediately after the shower, but also for a number of hours afterward.

To help reduce the risk of surgical site infection, we strongly recommend 2 days of treatment before your bone marrow harvest.

Do not use the antiseptic soap solution if you are allergic to CHG (chlorhexidine gluconate). **If you have any type of skin reaction such as burning, itching, redness, or rash, stop using the solution. If the symptoms do not go away, call Roswell Park at 716-845-2300 and tell them you are a BMT patient scheduled for a harvest.**

During your TCT Center appointment, we gave you a bottle of antiseptic/antimicrobial skin solution. Please use ½ bottle of the bottle when you shower the night before the harvest. Use the other half of the bottle when you shower on the morning of your harvest.

How to Shower with CHG Antiseptic Solution

- Start by washing your hair, face, and body with your usual shampoo and soap. Rinse off completely.
- Turn off your shower.
- Apply the antiseptic to a wet clean washcloth and lather your entire body from the neck down. **Never use antiseptic solution on your face or genital area!**
- Gently wash your body for 3 minutes and focus on your lower back, hips, abdomen, buttocks, and legs. Do not scrub the skin too hard. Avoid your eyes, ears, nose, mouth, and genitals.
- Turn the water back on and rinse thoroughly with warm water.
- Do not rewash with regular soap after antiseptic solution.
- Pat yourself dry with a clean towel
- Do not apply powders, deodorants, lotions, creams, hair products, or make-up.
- Dress in freshly washed clothing.

It is important that you follow all of these steps when you shower the night before your harvest and again on the morning of your harvest.

During the Bone Marrow Harvest

After the anesthetic has taken effect, a special needle is inserted through the skin 2 to 3 times on each side of the rear hip bones and possibly the front hip bones. For each skin puncture, there are many bone punctures. Generally, 1-2 quarts of bone marrow are collected. If your doctor determines that it is necessary, we will give you a blood transfusion. The bone marrow harvest procedure takes 2- 3 hours.

After the Bone Marrow Harvest

- Pressure bandages will be applied to the harvest sites, with steri-strips under the dressing.
- You will be taken to the recovery room until you are stable.
- Afterwards, you will be moved to another location in the hospital until your doctor feels you are ready for discharge. Typically, you will be discharged by late afternoon.
- **You must arrange to have someone drive you home after the procedure.** (Because you have been sedated, you will need to wait until your doctor clears you before you can drive a car. It is dangerous to drive a car or other vehicle after you have been sedated. Your nurses will ask you to confirm that have a ride home before you are discharged.)

Home Instructions

- **Pain:** You will be sore and may have some pain at the harvest sites. You may take Tylenol® and/or use a heating pad. Your doctor may also prescribe medication for pain relief, if needed. Take it as directed. Do not take Tylenol® with other pain medicines unless approved by your doctor. You should not take aspirin, ibuprofen (Motrin®, Advil®), naproxen (Aleve®), or similar medications for 48 hours after surgery. These medications may increase the risk of bleeding.
- **Driving:** Do not drive for the rest of the day. Your doctor will let you know when it is safe for you to start driving again.
- **Dizziness:** To avoid dizzy spells, move slowly when changing your position for 48 hours after the harvest. When getting out of bed, sit on the side a minute or two before standing up.
- **Bandages and Dressings:** Do not remove the pressure dressing for 24 hours after the procedure. Do not remove any of the steri-strips.
- **Bathing and Showering:** You may take a shower 24 hours after the procedure, after removing the bulky outer dressing. Leave the steri- strips in place and allow them to fall off on their own. **No tub baths are allowed for 48 hours after your procedure.**
- **Nausea:** If you are experiencing side effects associated with anesthesia, your doctor may prescribe medication to help manage nausea and prevent vomiting.
- **Activity and Exercise**
 - ✓ No strenuous activity or heavy lifting for at least 1 week
 - ✓ No twisting at the waist for 1 week
 - ✓ No heavy exercise for 2 weeks
 - ✓ You may walk as tolerated
- **Work:** If your employment requires strenuous activity such as lifting or carrying, your doctor will give you a medical certification suggesting only light duty activities for a period of 1 to 2 weeks.
- **Iron supplements** may be prescribed.
- **Prescriptions:** Pick up your prescriptions before you get home. This will help you have better symptom control.

When Should I Call the Doctor?

A member of our clinic staff will call you the day after your procedure to check your progress and answer any questions you may have.

If you have any of the following symptoms, please call your doctor

- ✓ Drainage, bleeding or swelling at the procedure site
- ✓ Pain
- ✓ **Fever of 100.4 F (38° C) or higher**
- ✓ Nausea and/or vomiting

Transplant and Cellular Therapy Department

Hours: 7 a.m. – 5 p.m. , Monday to Friday and flexible hours on weekends and holidays

Phone: The TCT clinic is **716-845- 1444**.

If you call when the clinic is closed, our call center will answer. Tell them you are a TCT patient and a physician will return your call.