Bone Marrow Donation

Here is information to help you prepare for your bone marrow donation. This handout will tell you about the bone marrow donation procedure, what to expect during your hospital stay and how to take care of yourself when you leave the hospital.

Bone marrow is where blood is formed in the body. The marrow is a sponge-like material that fills the inside of your bones. The tiny spaces in the marrow hold stem cells that make blood cells. Some of the bone marrow is collected (harvested) and used for a transplant.

Here are the different types of blood and bone marrow transplants:

- **An autologous** (ah – tol’- o – gus) transplant is when you have your own marrow collected for your transplant.
- **A syngeneic** (sin – jin – a’ – ick) transplant is when marrow is collected from your identical twin.
- **An allogeneic** (allo – jin – a’ – ick) transplant is when marrow is collected from your brother or sister.
- **A matched unrelated transplant** is when marrow is collected from someone you do not know.

Before the bone marrow donation, you will have a check-up in the outpatient clinic to make sure you are in good health. You may donate a unit of your own blood at the American Red Cross. The blood will be saved and given back to you at the time your bone marrow is collected. Make sure the identification information that you provide to the American Red Cross at the time of your blood donation is the same exact information that appears on your records at The James. For example, if your middle initial is on your I.D. band at The James, your middle initial needs to be on your American Red Cross information.
At the check-up appointment before your bone marrow donation, you will:

- Have a brief health history and physical exam
- Have an electrocardiogram (EKG) to check your heart
- Have a chest X-ray
- Have blood drawn for testing
- Be told not to eat or drink anything after midnight the night before your surgery. This will prevent you from vomiting while having anesthesia.
- Be given a list of medicines that you will need to stop for a period of time before and after your procedure.
- Be asked about any herbs and dietary supplements you are taking.

How to Clean Your Skin Before Bone Marrow Donation

Directions

1. Shower and towel dry as you normally do **the night before** and **the morning of** your procedure.

2. You will have 2 CHG packages. Each package will contain 2 CHG cloths. Open 1 package after you shower the night before your procedure.

3. Use one CHG cloth to clean your lower back from your waist to the bottom of your buttocks.

4. Allow your skin to air dry for 1 minute.

5. Repeat step 3 using a second CHG cloth.

6. Allow skin to air dry for at least 1 minute. Do not rinse. Put on clean clothing when skin is dry.

7. Open the second package after you shower the morning of your procedure. Repeat steps 2 to 6.

Other Information

- Do not rinse or dry your skin after using the CHG waterless bath cloths.

- Do not apply any lotion to your skin after using the cloths.

Bone Marrow Donation
The Day of Your Bone Marrow Donation Procedure

Your bone marrow donation procedure will be done in the operating room. The procedure takes about 1 to 2 hours. Before going to the operating room, you will be asked to:

- Wear only your hospital gown
- Empty your bladder
- Remove all jewelry and hairpins
- Remove any dentures or partial plates
- Remove any make-up or nail polish
- Remove eyeglasses or contacts

An intravenous or IV line is put into a vein in your hand or arm to give you fluids during and after the surgery. This will be done in the pre-operative holding area where you will wait before the procedure.

In the operating room, the doctors and nurses will wear head covers, masks, and gowns. This helps keep the surgery area sterile. The doctors from the Bone Marrow Transplant Program will do the procedure.

The Anesthesiologist will give you medicine to help you sleep during the bone marrow donation procedure.

Bone Marrow Donation Procedure

The bone marrow is removed by putting a needle through the skin into the hip bone. The stem cells, along with some blood, are pulled out through the needle. The needle is put through the skin 2 to 3 times on each side of your rear hip bones. For each needle stick there are many bone punctures. After the procedure, a large dressing is put over the area to prevent bleeding.

If there were not enough cells removed from the rear hip bones, the front side of the hip must also be used. One to two liters of marrow will be removed during this procedure. About 5% of your stem cells will be collected.

After the marrow has been collected, it is filtered to remove fat and bone material. The way the marrow is processed depends on the type of transplant:

- For an **autologous transplant** the bone marrow is frozen until you are ready for the transplant.
For **syngeneic** or **allogeneic transplant** the marrow is put into a blood transfusion bag. It is then given to your brother or sister through their IV line.

For a **matched unrelated transplant**, the marrow is prepared and then taken to the patient who needs it.

**After Your Bone Marrow Donation Procedure**

- After the bone marrow procedure, you will be taken to the recovery room where you will wake up.
- While you are in the recovery room, a nurse will check your blood pressure and pulse every 15 minutes. The dressing on your hip bones will also be checked often. **Leave the dressing on for 48 hours after your procedure.**
- You will be in the recovery room for 4 to 6 hours. You may have some red drainage on the dressing. Your throat may be dry and sore from the tube that was used to help you breathe while you were asleep during the procedure.
- After the procedure, your blood cell count may be low. Your red blood cells may be replaced with a blood transfusion, if needed. You will receive your own blood if collected before. You will only receive another person’s blood if critically needed.
- Your nurse or doctor will tell you when you can try to drink or eat. You will be given clear fluids first, and then you may have solid food later. You may not want to try to eat a full meal right away. If you become sick to your stomach, tell your nurse.
- If you have some pain in your hips, tell your nurse so you can be given medicine to help relieve the pain.
- **Do not get out of bed by yourself.** Ask your nurse to help you the first time you want to get out of bed.
- **To help prevent infection in your lungs after your procedure, it is important to:**
  - Change your position in bed
  - Take deep breaths
  - Cough every two hours
Preparing For Discharge

You should plan to be discharged from the hospital in the late afternoon. Before you leave the hospital, your doctor or nurse will give you directions on how to care for your hip dressings and how to manage your pain.