

Department of Oncology

Preparing for Bone Marrow Biopsy

Diablo Service Area

Bone marrow biopsy and bone marrow aspiration are procedures to collect and examine bone marrow — the spongy tissue inside some of your larger bones. Bone marrow biopsy and bone marrow aspiration can show whether your bone marrow is healthy and making normal amounts of blood cells. Doctors use bone marrow biopsy and aspiration to diagnose and monitor blood and marrow diseases, including some cancers.

Bone marrow has a fluid portion and a more solid portion. In bone marrow aspiration, your doctor uses a needle to withdraw a sample of the liquid. In a bone marrow biopsy, a larger needle is used to take a sample of the solid part.

Bone marrow biopsy and bone marrow aspiration are often done at the same time. Together, bone marrow biopsy and aspiration may be called a bone marrow exam.

Bone Marrow Aspiration

The bone marrow aspiration is usually done first. The doctor makes a small incision to make it easier to insert the needle. A hollow needle is inserted through the bone and into the bone marrow. You might feel a deep ache as the needle is fully inserted.

Using a syringe attached to the needle, the doctor pulls back on the plunger to draw a sample of the liquid portion of the bone marrow into the needle. You may feel a brief sharp pain or a stinging, sucking or pulling sensation, which may travel down your leg, depending on the location of the aspiration needle. The aspiration takes only a few minutes. Several samples may be taken.

The health care team checks the sample to make sure it's adequate. In rare cases, a "dry tap" may occur — meaning fluid can't be withdrawn. The needle may need to be moved for another attempt.

Bone Marrow Biopsy

In a bone marrow biopsy, a sample of solid bone marrow tissue is taken. (A bone marrow biopsy isn't the same as a bone biopsy — a bone biopsy takes a sample of actual bone.) For a bone marrow biopsy, your doctor uses a different type of needle than is used for aspiration. The larger biopsy needle is specially designed to collect a core (cylindrical sample) of bone marrow.

You may feel a dull, aching pain or a sensation of tugging or pushing as the sample is taken.

Like the aspiration, the biopsy takes only a few minutes.

After your bone marrow exam, a nurse will hold a large pressure bandage over the site where the needle was inserted until the bleeding stops. Then a smaller bandage will be placed.

You may feel some tenderness for a week or more after your bone marrow exam. Ask your doctor about taking a pain reliever, such as acetaminophen (Tylenol). Applying a cold compress to the procedure site may relieve pain. Light exercise, such as walking, can also help.