

Bone Marrow Biopsy and Aspirate

Bone Marrow tests are used in the diagnosis and assessment of disorders of the blood

What is a bone marrow, biopsy and aspirate?

- Bone Marrow is the spongy tissue that is inside some of the larger bones in the body. The marrow is where you make red blood cells, white blood cells and platelets.
- A biopsy is when a small sample of tissue is removed from a part of the body. The sample of tissue is then examined under the microscope to look for abnormal cells, and may also be tested in other ways.
- Aspiration means removing some fluid – in this case it is removal of a sample of bone marrow fluid, which can be looked at under the microscope or tested in other ways.

Who has a bone marrow and aspirate?

There are a number of conditions that can cause blood disorders. Examining the bone marrow is helpful in explaining these findings and may help plan treatment. Your specialist/GP should explain why this investigation is recommended. This investigation is frequently used to find the reason for the low number of platelets (thrombocytopenia) in the blood. These cells may also be increased in number, examination of the bone marrow is also useful in identifying the cause.

How are these tests done?

Bone marrow samples are usually taken from the top of the pelvis bone (the bony part that you can easily feel just below your waist). Occasionally, other large bones are used such as the sternum (breastbone).

You will be asked to lie on a couch on your side depending on the exact site the doctor chooses to use. The skin over the bone to be sampled is cleaned with antiseptic. Some local anaesthetic is then injected into a small area of skin and tissues. This stings for a few seconds at first, but then makes the skin numb.

- To aspirate bone marrow fluid a needle is pushed through the anaesthetised skin into the bone marrow. As the liquid is withdrawn, you may experience a brief, sharp pain.
- To biopsy the bone marrow a second needle is then taken out and a pressure bandage is applied to prevent bleeding.

What preparation is needed before the test?

We advise all clients that:

- Someone should accompany you for this procedure
- If you take warfarin you should notify your doctor though it is unusual for this to be stopped or adjusted.
- Tell your doctor if you have previously had an allergic reaction to local anaesthetic
- You may need to sign a consent form before the procedure with the doctor taking the sample. The doctor should explain why the procedure is being performed, the processes involved and obtain your approval to proceed.

After the test

- You may need to lie on a bed and be observed for a few minutes. A local dressing will be applied and checked for bleeding.
- You may have some discomfort and bruising over the test site for a few days, which can be eased with paracetamol. Aspirin and anti-inflammatory medications may cause some local bleeding so paracetamol is preferred.
- If a biopsy has been taken, heavy/strenuous activity should be avoided for the next 1-2 days.
- The doctor or nurse should tell you how long the results of the tests would take to come back, usually within one week.

What are the risks of bone marrow biopsy and aspiration?

Complications are uncommon. In a small number of cases, there is some bleeding from the biopsy site. This is usually minor and soon stops. There is a small risk that the wound will become infected after the biopsy, but this is very rare if all instructions are followed.

If you have any concerns about the bone marrow procedure, please contact your GP or Specialist prior to the procedure.

This procedure requires an appointment to be made. If you haven't arranged an appointment, to arrange an appointment time please contact:

Pathlab Rotorua/Taupo – (07) 348 7361

Pathlab BOP – (07) 5787073

Pathlab Whakatane Hospital – (07) 5787073

Pathlab Waikato- 07 8580795