

Bone Marrow Aspiration and/or Biopsy

What is?

A bone marrow biopsy is a procedure to remove a sample of bone marrow for further investigation.

Bone Marrow is the soft part of the bone where all blood cells are made. It is found inside some of the larger bones in the body.

There are two parts to this procedure:

- **A bone marrow aspirate** is when a small amount of liquid bone marrow is taken from inside the bone using a syringe with a small hollow needle.
- **A bone marrow biopsy** is when a small core or piece of the bone marrow is removed again using a small hollow needle.

Occasionally only an aspirate sample is required. Usually however you will require both parts.

Why would I need this procedure?

Your doctor has decided that you need to have an assessment of your bone marrow to see if it is functioning normally.

What are the symptoms that have led to me having this procedure?

There are many reasons for carrying out a bone marrow aspirate or trephine that your doctor will have already explained. If you require further information, please contact the Haematology Specialist Nurses – numbers at end of this leaflet.

What are the alternatives?

There are no alternative procedures that will enable the Doctor to gain the necessary information for assessment of your condition.

What are the potential risks and side effects?

In a small number of cases there may be some bleeding from the biopsy site. A small dressing is usually enough to stop this. Some bruising is possible especially if you are on blood thinning medication or your platelet count is low – this is normal and will fade. There is a very small risk of infection at the biopsy site.

What are the expected benefits of the procedure?

Bone marrow aspiration/biopsy may be advised for various reasons such as:

- To investigate the reason for an abnormally low or high number of red blood cells, white blood cells, or platelets in the blood.
- To see how you are responding to treatment, and to determine the progress of your disease.
- To investigate unusual fever and infections.
- To look for side effects from other medications

What should I do before I come into hospital?

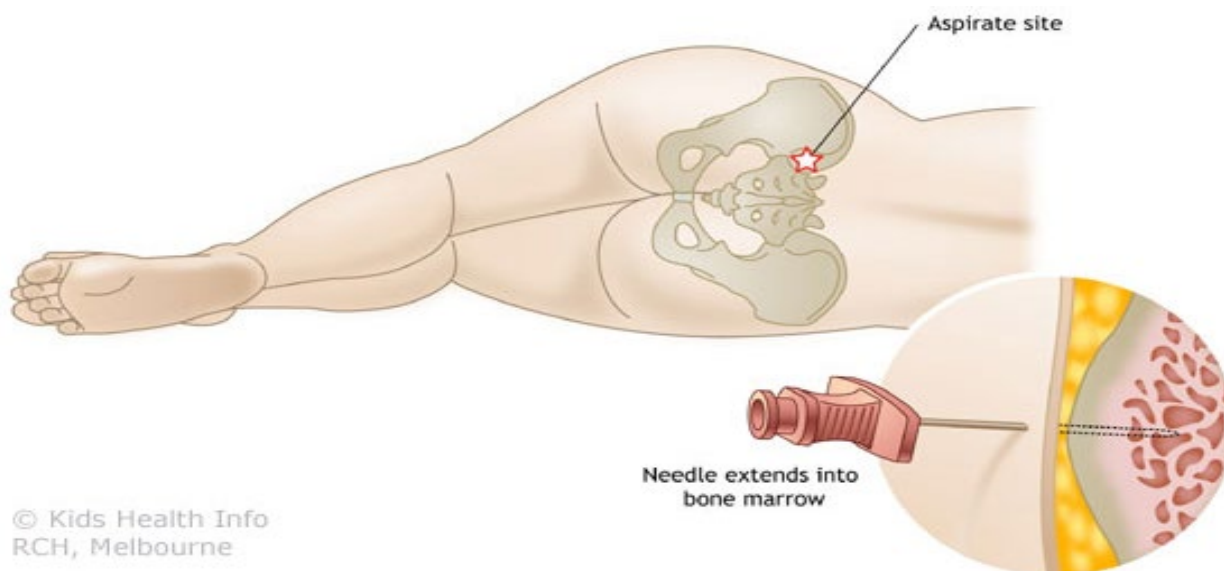
You can eat and drink normally prior to coming in for the procedure, as a local anaesthetic is used. As with any test you may be feeling anxious, so you are welcome to bring someone with you. You should inform your doctor if you have previously had any allergic reaction to local anaesthetic.

The doctor may ask you to have a blood test a few days prior to the procedure to check on how well your blood clots, particularly if you are on **any** blood thinning medication such as warfarin or rivaroxaban. Prior to the aspiration/biopsy, you will be advised of any changes to your medication that may be required.

Where will the procedure take place?

The procedure will take place on Pevensey Day Unit at Eastbourne D.G.H. or The Judy Beard Day Unit at the Conquest Hospital, Hastings. You will be given a date and time by your doctor for the procedure.

The marrow is usually taken from the bone at the back of the pelvis. (See diagram).



Bone marrow aspiration enables a drop of liquid marrow to be withdrawn with a syringe and spread on glass slides for viewing under a microscope.

You will be asked to lie on your side and curl up as tightly as possible. The area is swabbed with antiseptic fluid.

A local anaesthetic is then injected to numb the skin and soft tissue. Once the area is numb, the marrow needle is gently inserted into the centre of the bone. When the marrow is withdrawn, a slight pulling sensation may be felt. The area will be covered by a plaster which can be removed the following day. The local anaesthetic usually wears off in about two hours. Usually there is no pain but if the area remains sore, simple pain killers such as Paracetamol tablets, should be sufficient to ease the discomfort. This will be advised by your doctor, on discussion with you.

Bone marrow biopsy is carried out in the same way as a bone marrow aspiration and enables a core of marrow and bone to be removed by using a slightly thicker needle than that used for an aspiration, this may make this procedure slightly more painful.

Once the area is numb, the marrow needle is gently inserted into the centre of the bone. This is rotated around as it is pushed slightly forward to obtain a small sample of bone into the hollow middle of the needle. This may cause some dull pain for a short time. The needle is then removed, and the area covered by a plaster which can be removed 24 hours post procedure. Please keep the area dry while dressing in place.

Will I have an anaesthetic?

Local anaesthetic into the skin is given for both the aspiration and the biopsy. Local anaesthetic is the preferred pain relief if however, you have concerns about this please discuss with the Consultant or Specialist Nurse prior to the day of the procedure.

How will I feel afterwards?

You may have some mild discomfort in the area following the procedure, for which you can be given a simple pain killer. Otherwise, your general health will be unaffected by the procedure.

How long will I be in hospital?

The procedure usually takes about five minutes, but you will need to rest on your back for a further 30 minutes before being allowed to go home.

What should I do when I go home?

If you have any discomfort after the procedure, you should take a simple painkiller like Paracetamol regularly for a day.

How soon will I be able to resume normal activities?

You will be able to resume normal activities the day after the procedure

Will I have to come back to hospital?

You will either be given an appointment to see the Doctor to receive the result of the Bone Marrow Aspiration/Biopsy or contacted by the Doctor in due course with the results.

When can I return to work?

This will be advised by your doctor, on discussion with you.

Consent

You should have had sufficient explanation from your consultant before you consent. Your signature confirms that you understand the procedure, the potential risks and side effects and want to go ahead with the procedure.

Although you consent for this investigation, you may at any time after that withdraw such consent. Please discuss this with your medical team.

Sources of information

If you require any further information regarding your procedure you can contact:

Eastbourne DGH

Maggie Saddleton, Theresa Street, Clare Evans, Lorraine Burt, Haematology Nurse Specialists
Tel: 03001315826

Important information

The information in this leaflet is for guidance purposes only and is not provided to replace professional clinical advice from a qualified practitioner.

We aim to make the information as up to date and accurate as possible, but please be warned that it is always subject to change. Please, therefore, always check specific advice on the procedure or any concerns you may have with your doctor.

Your comments

We are always interested to hear your views about our leaflets. If you have any comments, please contact the patient experience team on 0300 131 4784 or esh-tr.patientexperience@nhs.net.

Hand hygiene

We are committed to maintaining a clean, safe environment. Hand hygiene is very important in controlling infection. Alcohol gel is widely available at the patient bedside for staff use and at the entrance of each clinical area for visitors to clean their hands before and after entering.

Other formats

If you require any of our leaflets in alternative formats, such as large print or alternative languages, please contact the Equality and Human Rights Department on 0300 131 4434 or esh-tr.AccessibleInformation@nhs.net

After reading this information are there any questions you would like to ask? Please list below and ask your nurse or doctor.

Reference

The following clinicians have been consulted and agreed this patient information:

Dr Grace – Consultant Haematologist, Dr Joel Newman, Dr Anna Cowley, Dr Abier Elzein, Dr John Jones, Dr Nigel Sargent.

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Responsible clinician/author	Maggie Saddleton/ Theresa Street – Haematology Clinical Nurse Specialist, Eastbourne

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