

Bone marrow aspiration and trephine

What is bone marrow?

Bone marrow is a blood like substance that is found in the larger bones of the human body. It is the main site for the production and storage of blood cells before they enter the circulatory system. Blood cells in the bone marrow comprise of 'stem cells' (blood cells at their earliest stage of development), red cells, white cells and platelets. In an adult the production of blood cells is dependent upon the body's need. All blood cells have a very important function in the body including fighting infection, transporting oxygen and helping to prevent bleeding.

What is a bone marrow aspiration and trephine investigation?

A bone marrow aspiration involves taking a sample of bone marrow, usually from the back of the large pelvic bone. This involves the insertion of a special needle into the marrow of the bone after local anaesthetic has been used to numb the tissues surrounding it. Approximately 2-10mls of blood like fluid from the bone marrow will be withdrawn into a syringe depending upon the tests required.

A bone marrow trephine investigation is usually carried out at the same time although involves the use of a second special needle inserted into the same area to take a small sample of the 'spongy' bone marrow tissue.

Why do I need to have this investigation?

There are many different reasons for undergoing a bone marrow aspiration or trephine. Your doctor will explain the reason for your test before going ahead and will also gain your consent to do so.

How long will the procedure take?

The actual procedure itself will take approximately 20 minutes. You should however allow longer as some recovery time may be required or other tests such as peripheral blood samples.

Who will carry out the procedure?

A specialist haematology doctor or the haematology advanced nurse practitioner will carry out the procedure and if required with the assistance of a specialist trained health care professional.

Does the procedure hurt?

The procedure is uncomfortable but enough local anaesthesia is used to numb the tissues around the pelvic area, although you will feel some pressure and for a short time possibly a 'pulling' sensation down one of your legs. We can provide 'Entonox,' (gas and air), for those patients who are anxious about the procedure.

If this is something that you think you would like, please ask a nurse on your arrival to the department. There is no prior preparation required for the use of Entonox.

Do I need someone with me?

No, you can come alone, although you will have to wait in the department for approximately 20 minutes following the procedure if you choose to have Entonox.

Are there any side effects?

The short term side effects may include some pain and bruising at the site of the procedure. This should only last for 3-4 days. You will have a small dressing in place after the procedure which should remain dry for 24 hours. The dressing can be removed after this time. If you notice any bleeding from the area please contact the Haematology Day Unit and inform a nurse.

Do I need to take time off work?

It is advisable to take the day of your appointment off work in case you are delayed in the department.

If I have any further questions, who can I ask?

You are welcome to ask the doctor any questions before your appointment or alternatively contact the nursing staff on the

Haematology Day Unit on 01273 696955 Ext. 67413

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