



Bone Marrow Biopsy

**Haematology -
Centre for specialist care**
Patient Information

Introduction

The bone marrow is a spongy tissue, which is found in the centre of bones. The bone marrow is our body's factory where blood cells are made and then mature.

The bone marrow biopsy allows your doctor (Haematologist) to look at all of the different blood cells which are made in the bone marrow:

- **Red cells:** carry oxygen around the body.
- **White cells:** help fight infection.
- **Platelets:** stop you bruising and help your blood to clot after a bleed.

Why do I need a bone marrow test?

The diagnosis of some blood conditions is made by examining the bone marrow. This involves the removal of a sample of the bone marrow for examination under the microscope. This helps establish a diagnosis and assist in deciding the treatment options that are best for you. Alternatively, a bone marrow test allows the doctor to assess how you have responded to treatment.

There are two parts to the test:

- **Aspirate:** taking the liquid from inside the bone marrow.
- **Trephine:** taking a small core of the bone marrow to allow us to see the marrow within its' scaffolding.

Preparation

The procedure is carried out as an outpatient. There are no dietary restrictions before the test; you should eat, drink and take any medication as normal. Most often the back of the hip (pelvis) is used to obtain the samples; occasionally the front of the hip will be used and very occasionally the breastbone.

You will be asked to lie on your side with your legs tucked up towards your chest, but so that you are comfortable.

You can wear your own clothes and normally the procedure takes around 15 minutes, although you will remain in the outpatient department longer.

The procedure

Either a haematology doctor or a haematology nurse specialist will carry out the procedure. The procedure is an outpatient investigation. Please let the doctor or nurse know if you have any allergies to dressings, local anaesthetic or cleaning solutions (eg iodine) before the procedure.

The skin where the biopsy is to be taken will be cleansed and then local anaesthetic will be injected around the site that will numb the area. You may experience a stinging sensation as the local anaesthetic is given; this stinging should soon subside.

The aspirate part of the test involves a special needle being inserted into the bone marrow cavity to remove the liquid bone marrow. As this aspirate is being withdrawn, you may experience a sharp pain going down your leg; this is normal and will pass almost immediately.

The trephine part of the test involves the repositioning of another needle and taking a sample by rotating the needle to retrieve samples of the core of the bone marrow. This gives very different information than the aspirate and is equally as important.

In some instances, additional samples may be required, for example if you are taking part in a clinical trial. These samples are sent to the appropriate centre, and can take up to four weeks to return.

Benefits

The benefit of undertaking the bone marrow investigation means that a diagnosis can be made more accurately which can help determine the most appropriate treatment for you. In some instances the investigation is carried out to determine a response to treatment.

What are the risks and / or side effects from the procedure?

Complications are very unusual but may include bleeding, infection and pain. A small, dry dressing will be applied to the area. Later in the day, or the following morning, the area where the sample was taken from may be sore; simple painkillers may be taken.

If your biopsy site continues to bleed when at home please contact haematology Day Unit 01642 282763 or Ward 33 01642 854533 (after hours)

Consent

It is important that you understand the need for the investigation and agree that it should be carried out. Following an explanation of the procedure, please feel free to ask any questions. You will be asked to sign a consent form that gives the doctor or haematology nurse specialist permission to proceed.

You will receive a copy of this consent form to take away with you.

After the procedure

On completion, pressure will be applied to the site to prevent the formation of a haematoma (bruise) and, to ensure that the wound does not bleed. A small dressing is applied to the site and you will be allowed home.

If you have had sedation you must not drive or operate machinery for 24 hours after the bone marrow procedure. In addition, you should have someone stay with you for that period of time. Although you will be awake when you leave hospital, it is likely that effect of the sedation will cause you to be sleepy later in the day; this is normal and is due to the action of the drug and the length of time it is in your system.

Follow up

Before you leave the department, you will be given an appointment to return to hospital to discuss all of the results with the haematologist and haematology nurse specialist.

If you have any further questions please contact the haematology nurse specialist (details are over the page).

It will take at least two weeks to establish all of the information required to make a treatment plan.

Contacts and further information

Your consultant is:

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Telephone number:

Your haematology nurse specialist is:

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Telephone number:

Other important contacts:

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Suggested reading:

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Recommended websites:

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Patient Experience

South Tees Hospitals NHS Foundation Trust would like your feedback. If you wish to share your experience about your care and treatment or on behalf of a patient, please contact The Patient Experience Department who will advise you on how best to do this.

This service is based at The James Cook University Hospital but also covers the Friarage Hospital In Northallerton, our community hospitals and community health services.

To ensure we meet your communication needs please inform the Patient Experience Department of any special requirements, i.e. Braille/ Large Print.

T: 01642 835964

E: stees.patient.experience@nhs.net

The James Cook University Hospital
Marton Road, Middlesbrough, TS4 3BW. Switchboard: 01642 850850

Author: Haematology department and NECN nurses group
Issue Date: August 2020 Revision Date: August 2022

ST0993