

# Bone marrow aspiration and biopsy

## Haematology Oncology Team Patient Information Leaflet

### Introduction

This leaflet is for people who are having a procedure called bone marrow aspiration and a biopsy. It gives information about what the procedure is used for, how it is carried out and how you may feel after it.

### What is bone marrow aspiration and biopsy?

Aspiration is a procedure where a small amount of bone marrow fluid is taken out using a hollow needle and syringe. The cells from this fluid can be examined under a microscope.

A bone marrow biopsy (known medically as a trephine) is a procedure that takes a tiny piece of bone marrow tissue out using a special needle. This tissue then can be examined and tested.

## What are the benefits of the procedure?

It can be used to:

- assess the development of blood cells found in the bone marrow
- check for the presence of abnormal cells in the bone marrow
- check for possible causes of low blood counts
- monitor the response to treatment

The aspiration fluid gives a picture of which cells are in the bone marrow and the biopsy shows how the cells are arranged within the bone marrow.

## What are the risks?

These are not common but as with any procedures, there are some risks and it is important that we make you aware of these. For this procedure they are:

- Bleeding from the site where the needle goes in.
- Infection at the site where the needle goes in. You may need to have antibiotic medicine to treat this.

Very rarely, nerves, muscles or blood vessels in the pelvis can be damaged during the procedure. This may cause numbness and/or weakness in the leg, pain or bleeding.

## What are the alternatives?

Your consultant has recommended that this is the best way to find out important information about your condition. It is your choice as to whether you have the procedure. However, if you choose not to have it, it could delay your diagnosis and/or having important treatment.

## **What do I need to do before the procedure?**

No special preparation is necessary. However, you may wish to take paracetamol before the procedure to reduce discomfort, if you can take it (always read the label; do not exceed the recommended dose).

You can eat and drink as normal before and after the procedure.

## **What about my medication?**

Please tell your consultant about any medication you take before your procedure, as some may have to be stopped for a while before the test. This is especially important if you take blood-thinning medication such as warfarin or rivaroxaban as these medications may increase your risk of bleeding after the procedure.

## **Consent**

Your nurse or doctor will give you a detailed explanation of the procedure before you have it. If you are happy to go ahead with the procedure, we will ask you to sign a consent form. After you have signed the consent form, if you change your mind, tell your nurse or doctor.

## **How long does it take?**

The procedure itself usually takes 10 to 20 minutes. However, you will be at hospital for longer than this due to:

- explaining the procedure to you and taking your consent.
- preparation.
- a short period of observation after the procedure to make sure you are fully recovered.

## **Will it hurt?**

We will give you a local anaesthetic injection before the procedure to numb the area. You are likely to feel some discomfort during the procedure but it should only last a short time.

## What happens during the procedure?

- The area usually used for a bone marrow aspiration and biopsy is the back of the hip bone. We will ask you to lie on your side. On very rare occasions, the breastbone (sternum) can also be used. In this case, we will ask you to lie on your back.
- The doctor or nurse will clean your skin with antiseptic. Therefore, it is important to tell us if you are allergic to any antiseptics, drugs or plasters.
- The doctor or nurse will inject the area with a local anaesthetic to make the aspiration and biopsy site numb.
- When this has taken effect, the doctor or nurse will insert a special needle. You will feel pressure as the needle is inserted. A small amount of bone marrow is then sucked out through the needle using a syringe. It is now that you may get some discomfort but this usually only lasts a short time.
- If you need a bone marrow biopsy (trephine), this will be taken using a different kind of needle. The doctor or nurse may need to take a few samples of tissue.
- After this, the doctor or nurse will apply a small dressing and press down on the area to stop any bleeding.

## What happens after the procedure?

The site where you had the biopsy taken may be painful. Check with the doctor or nurse carrying out the procedure about medication to relieve the discomfort. Painkillers like paracetamol can usually relieve this, if you can take them (always read the label; do not exceed the recommended dose).

If bleeding or a lot of bruising occurs at the site, press on the area and contact nursing staff on Georgina Unit/C4 for advice. In an emergency, go to your nearest emergency department (A&E).

If the area becomes sore or red a few days after the procedure, contact nursing staff on Georgina Unit/C4 for advice.

## Can I find out more?

You can find out more from the following weblink:

### **NHS Choices**

<http://www.nhs.uk/Conditions/Biopsy/Pages/How-it-is-performed.aspx>

If you have any questions, or if there is anything you do not understand about this leaflet, please contact:

The haematology nurses on 01384 456111 ext. 2453 (8am to 4pm, Monday to Friday)

Out of these hours, you can contact the Georgina Unit/C4 on 01384 244235 and ask to speak to the nurse in charge. If the nursing staff cannot answer your questions, they will give you other contacts.

Russells Hall Hospital switchboard number: 01384 456111

**This leaflet can be downloaded or printed from:**

<http://dudleygroup.nhs.uk/services-and-wards/oncology/>

If you have any feedback on this patient information leaflet, please email [patient.information@dgh.nhs.uk](mailto:patient.information@dgh.nhs.uk)

**This leaflet can be made available in large print, audio version and in other languages, please call 0800 073 0510.**

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Ulotka dostępna jest również w dużym druku, wersji audio lub w innym języku. W tym celu zadzwoń pod numer 0800 073 0510.

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