

Information for patients and visitors

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# Bone Marrow Aspirate and Trephine Procedure (Biopsy)

Department of Haematology  
Medicine Group

This leaflet has been designed to give you important information about your condition / procedure, and to answer some common queries you may have.



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## Introduction

It has been recommended that you have a bone marrow sample taken. This leaflet explains some of the benefits and risks of the procedure. We want you to have an informed choice so you can make the right decision. Please ask your medical team about anything you do not fully understand or would like to be explained in more detail. We recommend that you read this leaflet carefully. You and your doctor (or other appropriate health professional) will also need to record that you agree to have the procedure by signing a consent form.

## Information

Your bone marrow is the spongy tissue and fluid that is found inside some of the larger bones in your body, such as your pelvis or breast bone. The bone marrow is responsible for making your red blood cells, white blood cells, and platelets.

There are a number of reasons why you will have been advised to have this test. These include:

- To find the cause of abnormal blood counts
- To determine the presence of a disease
- To monitor treatment response

A bone marrow aspirate involves using a special needle and syringe to remove some of your bone marrow fluid which is then examined in the laboratory.

A bone marrow (trephine) biopsy is when a small core of the bone marrow tissue is removed in one piece. The sample of tissue will be examined under a microscope to look for abnormal cells.

## Preparation Before Your Procedure

You may need a blood test shortly before the bone marrow procedure to check how well your blood will clot. This is to make sure you are not likely to bleed too much from the biopsy site. You will be advised if this needs to be done.

Tell your doctor or nurse if you have previously had an allergic reaction to any local anaesthetics.

You may continue to eat and drink as normal before the procedure and continue to take your normal medicines up to and including the day of your procedure. If we do not want you to take your normal medication, your doctor or nurse will explain what to do. It is important to let us know if you are taking anticoagulant drugs (for example, warfarin, clopidogrel or aspirin).

## Benefits

Some diseases start in the bone marrow or spread to the bone marrow. A sample of your bone marrow tissue may give your doctor more information about your disease. Your doctor should be able to make a diagnosis and find out the stage of any disease. Once the diagnosis is confirmed you will start to receive the appropriate treatment.

## Risks

A bone marrow procedure is considered to be safe, but occasionally there can be side effects and complications. These can include:

- **Bleeding:** In a small number of cases there is some bleeding from the biopsy site. This usually stops by itself. Very rarely the bleeding is more severe and may require a blood transfusion

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- **Infection:** There is a very small risk that the small wound can become infected. If this happens you may require a course of antibiotics
- **Damage to the nearby structures:** Rarely the needle damages other nearby structures (for example nerves and muscles). If this happens there is nothing you can do and they will repair themselves over a period of a few weeks

## Alternatives

Unfortunately there is no alternative method of checking the quality of the bone marrow to make a correct diagnosis.

## During the Procedure

You will usually be asked to lie on a couch on your left side in a comfortable position with your knees curled up.

Once the area of skin has been cleaned with antiseptic, local anaesthetic is then injected into a small area of skin and tissues just over the chosen area of bone. The anaesthetic stings a little at first but then makes your skin go numb. During the procedure you will experience a pushing sensation but should feel no pain. If you do feel any pain please inform us. The needle used to sample your bone marrow is then inserted and the sample is taken, using a syringe attached to a needle. The needle is then removed. If a bone marrow trephine biopsy is required as well, a slightly different type of hollow needle is then inserted into the bone, through the area of anaesthetised skin, which retains a core of marrow inside it when it is removed.

Bone marrow samples are usually taken from the back of the pelvic bone (the bony part that you easily feel just below your waist). Occasionally they are taken from the breast bone.

Once complete the needle is taken out and a plaster is put over the site of needle entry.

The whole procedure should take approximately 20-30 minutes.

## Post Procedure

You will be asked to sit down and rest for a short time after the procedure to make sure that there is no excessive bleeding.

You may have some discomfort and bruising over the test site for a few days, which you can ease with painkillers such as paracetamol.

You will be given a clinic appointment for 2-3 weeks after the procedure when the results will be ready and the diagnosis will be discussed with you.

## Leaving Hospital

Once you get home, it is important to rest quietly for the rest of the day.

The effects of anaesthetic and the procedure itself should have worn off by the next day, when most patients are able to start normal activities again.

The dressing should be left in place for 24 hours, if the dressing needs replacing this should be done immediately and using a clean sterile dressing. You may have a shower but soaking the wound should be avoided for 24 hours, to prevent infection.

You must contact your haematology nurse or GP if you experience any of the following:

- Severe or persistent pain
- Bleeding which you are unable to stop
- Pins and needles or numbness in your leg

You will be cared for by a skilled team of doctors, nurses and other healthcare workers

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who are involved in this type of procedure every day. If problems arise, we will be able to assess them and deal with them appropriately.

### Reference Section

Guy's and St Thomas' NHS Foundation Trust.

### Concerns and Queries

If you have any concerns / queries about any of the services offered by the Trust, in the first instance, please speak to the person providing your care.

**For Diana, Princess of Wales Hospital** – you can contact the Patient Advice and Liaison Service (PALS) on (01472) 875403 or at the PALS office which is situated near the main entrance.

**For Scunthorpe General Hospital** – you can contact the Patient Advice and Liaison Service (PALS) on (01724) 290132 or at the PALS office which is situated on C Floor.

Alternatively you can email:  
[nlq-tr.PALS@nhs.net](mailto:nlq-tr.PALS@nhs.net)

### Northern Lincolnshire and Goole NHS Foundation Trust

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