

**Patient
Information**

Bone marrow biopsy

Introduction

This leaflet gives you information about having a bone marrow biopsy, what the procedure involves and answers the frequently asked questions.

Medication

Unless you have been given specific advice from your clinician, please telephone the CNS team (contact details are at the end of this leaflet) before the date of your procedure if you are taking any of the following medications as they may need to be stopped for a few days.

Warfarin	Aspirin
Rivaroxaban	Clopidogrel
Apixaban	Plasugrel
Edoxaban	Ibrutinib
Dabigatran	Acalabrutinib

What is bone marrow?

The bone marrow is the soft material within certain bones of the body. Bone marrow is responsible for making 3 main types of blood cells; red blood cells, white blood cells and platelets.

What is a bone marrow biopsy?

A bone marrow biopsy involves taking a sample of the bone marrow from the bone at the back of the pelvis. The sample is then assessed under a microscope. This helps to identify whether there are any disorders affecting the bone marrow.

Why do I need a bone marrow biopsy?

Some of the symptoms you are experiencing, or abnormalities we have identified in your blood test, indicate there may be a problem with the way your blood cells are made in your bone marrow.

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Department

Haematology

Review due

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A bone marrow biopsy can provide information that a blood test cannot. It can help with diagnosing conditions and determining the appropriate treatments.

How is the bone marrow biopsy performed?

The doctor or nurse performing the biopsy will discuss the procedure with you both at your clinic appointment and on the day of the procedure. They will also answer any questions you may have. You will then be asked to sign a consent form.

You will be asked to lie on your side with your knees bent towards your chest and your lower back exposed. You will not need to undress or wear a hospital gown.

A cleaning solution will be applied to the back of your pelvis and a local anaesthetic will be injected to numb the area where the sample will be taken from, just over the iliac crest (please see figure 1).

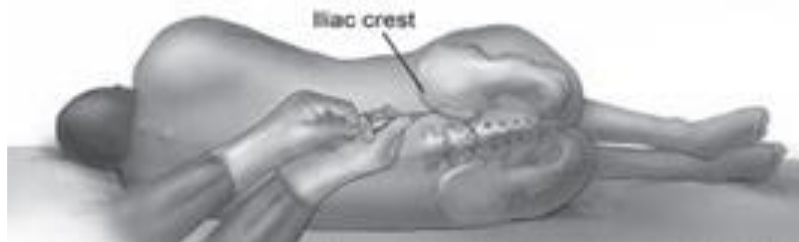


Figure 1: Image of site of procedure

Once the area is numb, a needle will be placed through the bone into the bone marrow through the skin. Liquid within your bone marrow will then be drawn off.

If required, a second sample will be taken of the more solid bone marrow, this is called a trephine biopsy.

After the procedure a dressing will be applied to the area and you will be asked to lie on your back. This is to apply pressure to minimise any bruising over the area. Please leave the dressing in place for 24 hours.

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The aim is to make the procedure as pain free as possible. The local anaesthetic may cause a stinging sensation prior to numbing the skin.

You may also feel a pulling or stinging sensation when the liquid bone marrow is drawn off.

If a trephine biopsy is required you may have a dull ache or pain down your leg on the side of the procedure site after the biopsy has been taken.

After the procedure the wound site where the biopsy was taken may ache, this is usually relieved by taking pain relief such as paracetamol. Please follow the dosage instructions within the pack.

Can I have pain relief?

You can request to have Entonox[®] (gas and air) during the procedure, this is a pain-relieving gas that acts as you breathe it in and wears off quickly. Most people having this procedure do not require Entonox[®] but please contact the CNS team using the telephone number at the end of this leaflet or the clinician performing your procedure if you feel that you would like to have this available.

Will I be able to drive home?

You can drive home after the procedure, including if you have had Entonox[®].

Can I exercise after the procedure?

You can perform light exercise. However, we advise you to avoid any strenuous activity for a day or so after the procedure.

Do I need to bring someone with me?

It is not necessary to bring someone with you but some people find it reassuring.

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What are the risks?

There is small risk of bleeding from the site, as with any biopsy procedure. Certain medications which thin your blood may increase this risk. Please follow the advice given at the beginning of this leaflet.

There is also a small risk of localised infection around the site, where the needle is inserted. The procedure is performed under sterile conditions, to minimise this risk as much as possible.

Sometimes we are not able to take the sample of bone marrow. If this happens, we will likely ask your permission to repeat the procedure, either on the day or at a later date.

How long does it take?

The procedure usually takes 20 to 30 minutes but you should allow up to one hour. This will give enough time for the doctor or nurse to discuss the consent form and answer any questions you may have. It will also allow time for you to rest and have your dressing checked before leaving the hospital.

The procedure may take a little longer if additional tests need to be checked such as your blood count.

Where is the procedure performed?

At the Edward Jenner Day Unit (EJU), Ground Floor, Gloucestershire Royal Hospital (when you enter the atrium of the hospital, go towards the volunteer's desk then turn right - EJU is clearly signposted) or in the LINC outpatient suite (which is opposite Accident & Emergency, Cheltenham General Hospital).

When will I get the results?

This depends on the test you have performed. Bone marrow aspirate (fluid sample) results may be available 2 days following the procedure. Bone marrow trephine results can take up to 10 working days. Usually, you will be given the results at your next clinic appointment.

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Research

You may be asked if your bone marrow sample can be used for research. If you agree to this, you will be asked to sign a second consent form, this will be explained fully and any questions you have will be answered by the clinician performing your procedure.

Contact information

Clinical Nurse Specialist (CNS) Team

Tel: 0300 422 5278

Monday to Friday, 9:00am to 4:00pm

Edward Jenner Unit

Gloucestershire Royal Hospital

Tel: 0300 422 5299

Monday to Friday, 9:00am to 5:00pm

Haematology Department (LINC)

Cheltenham General Hospital

Tel: 0300 422 4057

Monday to Friday, 9:00am to 5:00pm

Further information

For more information and to watch a video about having a bone marrow biopsy, please enter the following web address into your internet search:

https://www.youtube.com/watch?v=tl7m2y_secl

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Making a choice

Shared Decision Making

If you are asked to make a choice, you may have lots of questions that you want to ask. You may also want to talk over your options with your family or friends. It can help to write a list of the questions you want answered and take it to your appointment.



Ask 3 Questions

To begin with, try to make sure you get the answers to three key questions if you are asked to make a choice about your healthcare.

1. What are my options?
2. What are the pros and cons of each option for me?
3. How do I get support to help me make a decision that is right for me?

These resources have been adapted with kind permission from the MAGIC Programme, supported by the Health Foundation

* Ask 3 Questions is based on Shepherd HL, et al. Three questions that patients can ask to improve the quality of information physicians give about treatment options: A cross-over trial. Patient Education and Counselling, 2011;84: 379-85