

University College Hospital

Bone marrow aspirate (BMA) with the use of Entonox® Teenage and Young Adults Day Care

This leaflet explains more about the bone marrow aspirate (BMA) with the use of Entonox®. It includes information about the benefits, risks and alternatives, and what you can expect when you come to hospital. If you have any questions or concerns, please speak to a doctor or nurse caring for you.

What is a bone marrow aspirate (BMA)?

Bone marrow is a spongy material found inside some large bones in the body, such as the hip bones and pelvis, where your blood cells are made. Taking a sample (called an aspirate) of bone marrow can provide lots of information about the way your blood cells are being made and how they're developing.

A sample of bone marrow is taken by using a special needle. To make the procedure more comfortable, we will offer you Entonox® and an injection of local anaesthetic.

Entonox® is an odourless and colourless gas consisting of nitrous oxide and oxygen in equal measures. It provides short-term pain relief – it starts working very quickly (within several minutes) and wears off almost as fast.

Local anaesthetic will numb the part of your body where the needle will be inserted. You will stay awake during the procedure but will not feel any pain.

What are the benefits of a BMA?

Your doctor will have already discussed with you why you should have this procedure.

Usually, BMA is used to help to:

- find the cause of low blood counts
- diagnose a disease
- monitor response to treatment.

Are there any risks?

Although uncommon, there are a few risks associated with BMAs.

- There can be some bleeding where the needle has been inserted – this can usually be treated by applying pressure and a dressing to the site. If bleeding is heavy, a doctor or nurse may decide to keep you in the unit until it is well controlled.
- Some people experience discomfort once the local anaesthetic has worn off. However, if the pain is severe or getting worse, you must contact us (please see page 4 for contact numbers).
- There is a small risk of wound infection but this is reduced by keeping the wound covered for 24 hours after the procedure.

What will happen if I choose not to have a BMA?

Your doctor has recommended that you have this test because it is the best way to assess your illness and how to treat it. Choosing not to have the BMA could cause delay to treatments. If you have any concerns or would like to discuss alternatives, please speak to your doctor.

General information

BMA's take place in the morning at the Teenage and Young Adults Day Care, University College Hospital Macmillan Cancer Centre. We will make an appointment for you and it's important that you arrive on time. If you are running late, please ring us on **020 3447 1867**, otherwise your BMA will need to be rearranged.

How should I prepare for my BMA?

If you are on any anti-coagulation treatment (please ask your doctor or nurse if you are unsure), please seek advice on when to stop it before your BMA and when to restart it after the procedure.

You may like to bring a relative or friend to stay with you during the test.

Asking for your consent (permission)

We want to involve you in all the decisions about your care and treatment. The team treating you will answer any question you may have so please ask if anything is unclear. If you decide to go ahead, we will ask you to sign a consent form. This confirms that you agree to have the procedure and understand what it involves.

During the procedure

- When you arrive, a nurse will check all of your details (your name, date of birth and any allergies you may have), as well as your heart rate and temperature, and ask you some questions. They will also take some blood for testing.
- Please let the nurse know of any medications that you are running out of so they can order them for you.
- You will then go through to the procedure room. You can have one relative or friend with you if you'd like to.
- Your details will be checked by different members of the team.
- Entonox® is self-administered, which means that you will be able to take it yourself. A specially trained nurse or doctor will show you what to do. You will be given a mouthpiece, which you'll need to place in your mouth. It is important that you hold the mouthpiece firmly between your teeth/lips to form a good seal. You will be asked to breathe deeply for one to two minutes before the procedure begins to ensure that the painkiller is in your body. Entonox® will only flow when you breathe in, so the deeper you breathe, the better your pain relief will be.
- You will have an injection of local anaesthetic – this may sting a little but should not be painful.
- Once you are comfortable and it has been five minutes since the local anaesthetic was given, the doctor or nurse will insert a needle into a bony part of your back (ileac crest) and take a sample of your bone marrow.
- The whole procedure can take up to 30 minutes to complete.

After the procedure

- You will be able to go home on the same day.
- One or two small dressings will be applied to your back and these will be checked before you leave. If you notice any bleeding or oozing through your dressing, please let us know.
- The nurse or doctor will decide when you are ready to go home.
- Please make sure that you have any medications you need before leaving.

At home

- It is normal to have some pain at the biopsy site after a BMA. You can take oral painkillers to help with that – your nurse will advise you. If you're unsure what to take, please contact us for advice.
- You will be able to drive home as long as it has been at least 30 minutes since the end of the procedure.
- You will need to keep the dressings dry for 24 hours. You can remove them after that time.

If you have any bleeding, redness or swelling around the area where the bone marrow sample was taken, please contact the relevant urgent advice line listed below:

- Adolescent (19 and under) urgent advice line: **07908 468555**
- Adult haematology urgent advice line: **07852 220900**
- Adult oncology urgent advice line: **07947 959020.**

Where can I get more information?

If you have any questions or would like to discuss this procedure further, please contact your nurse specialist or a member of the Day Care team on the number below.

Contact details

Teenage and Young Adult (TYA) Day Care
Third Floor
University College Hospital Macmillan Cancer Centre
Huntley Street
London WC1E 6AG

Telephone: **020 3447 1867**

If you need a large print, audio or translated copy of this document, please contact us on 020 3447 1867. We will try our best to meet your needs.