

The ROYAL MARSDEN

NHS Foundation Trust

Having a bone marrow biopsy

Haemato-oncology

Patient Information



NHS

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What is a bone marrow biopsy?

The bone marrow is a spongy like material in the core of the bone where your blood cells are made. A bone marrow biopsy is a procedure which involves taking a liquid (aspirate) and or solid (trephine) sample of bone marrow for further examination.

Why do I need a bone marrow biopsy?

Some cancers start in or spread to the bone marrow. A sample of bone marrow tissue may give your doctor more information about your cancer. We also take bone marrow samples to find out how well your treatment is working.

Where is a bone marrow biopsy taken from?

The sample will be taken from the back of the hip bone where the hip is closest to the surface. This is known as the posterior iliac crest.

What preparation will I need?

If you are taking blood thinning drugs such as warfarin or tinzaparin, tell the nurse or doctor before the procedure is booked.

You will need to have stopped taking warfarin three days before the procedure and have your blood clotting re-checked before we can do the procedure. The doctor who manages your warfarin doses will give you instructions about when to take the drug again and at what dose.

If you have tinzaparin injections they should be stopped for at least 12 hours before the procedure depending on the dose; your doctor will advise you.

These precautions are to avoid any unnecessary bleeding during or after the procedure.

The procedure is usually carried out under local anaesthetic so you will be able to eat and drink as normal and drive home after the procedure.

However, if you are having sedation (under special circumstances), please note the following:

- You must not eat for six hours before the procedure
- You can drink clear fluids up to two hours before procedure
- You will need to have someone with you to take you home and you cannot drive for 24 hours after the procedure.

What happens during the procedure?

The doctor or nurse carrying out the procedure will ask you some questions and discuss the procedure. We will then ask you to sign a consent form agreeing to the procedure. We will ask you to lower all clothing to your mid-buttock region. You will need to lie on your side with your knees bent towards your chest; if this is a problem please tell the nurse or doctor.

We will make sure you are in the correct position, then the nurse or doctor will feel for the correct spot on your hip bone. This may feel a little sensitive as direct pressure is applied. Once the spot is located the nurse or doctor will lay a clean paper towel over you and clean the area with a disinfectant solution. A local anaesthetic is then injected under the skin then deeper into the tissues. A small amount is also injected into the area covering the bone (periosteum).

When the area feels numb to you, a needle is inserted into your hip and through the bone – this may feel like a ‘pushing’ sensation. A syringe is attached to the needle to withdraw liquid bone marrow – this may feel like a sharp ‘sucking’ or ‘dragging’ sensation down your leg or up your back. When the nurse or doctor has enough samples, the needle is removed and pressure is applied to stop any bleeding. If we need a solid sample of bone marrow, a second needle is inserted in the same way as before; a bit more pressure may be applied and as before a sharp sensation may be felt in the hip bone. The nurse or doctor will remove the needle and check the sample is adequate. Again pressure is applied to the area until bleeding has stopped, a dressing is then applied and you will need to lie on your back for five to ten minutes.

How long will the procedure take?

The procedure takes about 10 to 15 minutes.

If you are having sedation you will need to stay in the department for a few hours to allow time to recover.

Is it painful?

Having a bone marrow procedure can be painful, however, only for a short time. We give local anaesthetic to lessen the pain and most people tolerate the procedure well. Please talk to the nurse or doctor if you have any concerns.

If you are anxious about having the procedure and would like a relative/friend to be present with you, please let your CNS know in advance. We cannot guarantee that this will be possible but will do our best to ensure you are supported.

What happens afterwards?

As soon as the sample has been taken and you have been checked by the doctor or nurse, you can get ready to go back to work, home, your ward or clinic. You may eat and drink as normal and drive home if you have **not** had sedation.

The dressing should be kept on for 24 hours and kept dry to minimise risk of getting an infection; after this time you can remove the dressing.

What happens if I bruise?

There maybe some bruising to your buttock following the procedure. Some people are more at risk of bruising, for example:

- If you are taking blood thinning drugs, such as warfarin or aspirin
- If you have a low platelet count
- If you have a tendency to bruise very easily.

What can be done to prevent bruising?

If you are on blood thinning drugs, we will apply pressure to the site for longer and keep you lying flat for a few more minutes. If your platelets are low we may need to give you some before the procedure.

When will I get my results?

If you have had only an aspirate taken (liquid), the results may be ready the same day or following day. The trephine (solid) and any other tests can take seven to 10 working days. The doctor will contact you or arrange an appointment to see you when the results are ready. This could be up to two weeks after the procedure.

In what circumstances should I contact the hospital?

Please contact us if any of the following applies:

- If the pain worsens after 24 hours at the biopsy site
- If you have pain down your leg on the same side the biopsy was taken from or you notice any swelling
- If the wound bleeds continuously even after you have pressed on it for a long time
- If you think the puncture hole looks red and inflamed or you have a fever.

Contact details

Minor procedure suite

(Monday to Friday, 8am – 6pm)

020 8915 3376

Bud Flanagan outpatients department

(Monday to Friday, 8am – 6pm)

020 8661 6120

All other times (during evenings and weekends):

The Royal Marsden Macmillan Hotline

020 8915 6899

You can ring the hotline 24 hours a day, 7 days a week.

Call us straight away if you are feeling unwell or are worried about the side effects of cancer treatments.

This service provides specialist advice and support to all Royal Marsden patients, as well as to their carers, and both hospital and community-based doctors and nurses caring for Royal Marsden patients.

For patients under paediatric medical teams, please contact:

Paediatric Hotline

020 8915 6248

References

This booklet is evidence based wherever the appropriate evidence is available, and represents an accumulation of expert opinion and professional interpretation.

Details of the references used in writing this booklet are available on request from:

The Royal Marsden Help Centre

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Sutton 020 8661 3759 / 3951

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Should you require information in an alternative format, please contact The Royal Marsden Help Centre.

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