

Haematology and transplant unit

Bone marrow harvest

This leaflet is for all patients having a bone marrow harvest and explains what it is and what happens during the harvest.

What is bone marrow?

Bone marrow is a spongy material found in the centre of your bones. It is a 'factory' where your body's blood cells are made.

Inside your bone marrow are the worker cells called stem cells - these are the cells we want to collect during a bone marrow harvest. These types of cell go on to produce red blood cells, white blood cells and platelets. They are very important to maintain a healthy life.

What is a bone marrow harvest (BMH)?

Bone marrow is harvested (taken) from both of your hipbones and, very occasionally, from your sternum (breastbone) using a needle. This takes place in the operating theatre and you will need to have a general anaesthetic.

The harvest is quick and simple and takes about an hour to perform, but you will need to stay for 3 days and 2 nights in hospital. You will be admitted to The Christie the day before you go to theatre. This allows the doctors time to examine you and to ensure that you are well enough to have a general anaesthetic and the bone marrow harvest

Consenting to treatment

We will ask you to sign a consent form agreeing to accept the treatment that you are being offered. The basis of the agreement is that you have had The Christie's written description of the proposed treatment and that you have been given an opportunity to discuss any concerns. You are entitled to request a second opinion from another doctor who specialises in treating this cancer. You can ask your own consultant or your GP to refer you. Your consent may be withdrawn at any time before or during this treatment. Should you decide to withdraw your consent then a member of your treating team will discuss the possible consequences with you.

What happens during the procedure?

This type of harvest is carried out under a general anaesthetic. You will come into hospital the day before the harvest. You may need to have some blood tests and have an examination by a doctor. He or she will discuss the procedure with you again and ask you to sign the consent form agreeing to the procedure.

You are not allowed to eat or drink anything from midnight the night before theatre. On the day we will ask you to shower and put on a hospital gown. Remove all your jewellery (except a wedding ring). When the theatre staff are ready for you, a porter and nurse will take you to theatre.



The anaesthetist will insert a cannula (a plastic needle) into the back of your hand so you can have medication to put you to sleep. The doctor will harvest the bone marrow from the back of your hip bones (rarely this may also include the breast bone). They will put a needle into the bone and remove the bone marrow with a syringe and transfer this to a blood bag. The harvest takes about an hour to complete and the doctor will remove about 1 to 1.5 litres of marrow. Your body can replace this in less than 3 weeks.

A dressing is put over the puncture site to stop the site from bleeding and the staff will take you to the recovery room to wake up. When you wake up you may have some fluids running from a drip into the cannula in your hand. This is to replace some of the fluid that has been taken during theatre. When you are properly awake we will take you back to the ward.

The staff on the ward will monitor you regularly and check the puncture sites, your blood pressure, temperature and pulse. They will also monitor your oxygen levels. You will be able to drink now and have some painkillers for the soreness in your back, hips and throat.

Some blood is taken along with the stem cells. Occasionally you may need a blood transfusion to replace the blood taken during the bone marrow harvest or we may give you some tablets to help you recover.

A dressing will be placed over the needle sites and you may have some slight oozing from there. Once you have returned to the ward the nurses will renew this dressing.

The nurses on the ward will arrange any follow up care that is needed for your dressings.

If everything goes well, you can go home the next day with some painkillers to take and some iron tablets if you are slightly anaemic. We advise you to rest for the next few days and return to work the following week. If you need a fit to work note the hospital doctor can fill one in for you.

Risks of having a bone marrow harvest

As with most procedures there is a small risk of complications. These include:

- Risks of having a general anaesthetic.
- Bleeding and bruising at the site of the harvest. This may cause soreness or a feeling of discomfort for a few days afterwards.
- Infection - there is a small risk of a local infection occurring at the site of the harvest.
- Lower back pain - we advise you to avoid any heavy lifting for a week to 10 days after your harvest and get plenty of rest. If necessary we will give you some painkillers to take home.

Going home

You will normally stay in hospital overnight after the harvest. Further blood samples will be taken the day after your harvest to monitor your recovery. If you are well, you will be able to go home the day after your harvest. Your dressings can normally be removed after a couple of days. You should not have any significant scarring from the procedure.

If you have any problems or concerns, please contact the apheresis co-ordinators on the HTDU on **0161 446 8011** or bleep them via The Christie switchboard on **0161 446 3000**.

Notes:

If you need information in a different format, such as easy read, large print, BSL, braille, email, SMS text or other communication support, please tell your ward or clinic nurse.

The Christie is committed to producing high quality, evidence based information for patients. Our patient information adheres to the principles and quality statements of the Information Standard. If you would like to have details about the sources used please contact **the-christie.patient.information@nhs.net**

For information and advice visit the cancer information centres at Withington, Oldham, Salford or Macclesfield. Opening times can vary, please check before making a special journey.



Contact The Christie Hotline for
urgent support and specialist advice
The Christie Hotline: 0161 446 3658
Open 24 hours a day, 7 days a week