

Radiology

Bone biopsy

You have been advised by your hospital consultant that you need to have a bone biopsy. This information tells you about having a bone biopsy, what is involved and what the possible risks are.

This leaflet will explain what the examination involves. It may not answer all your questions, so if you have any concerns or queries, please do not hesitate to call the telephone number on your appointment letter or contact the Radiology team on 0247 696 7115.

If you feel unhappy with any part of your care within the X-ray Department, please ask to speak to a senior member of staff.

Please read this leaflet carefully to ensure you are completely prepared for the examination.

Please contact the X-ray Department if your weight is equal to or more than 205kg (32 stone) as you may require an alternative examination.

Referral and consent

The biopsy is normally done as a planned procedure, and you should have plenty of time to discuss the examination with your doctor and the radiologist (a specialist X-ray doctor) who will be performing the procedure. You will be asked to sign a pink consent form confirming that you understand the procedure and are aware of the risks and benefits involved.



Patient Information

In rare cases a biopsy may be performed as an emergency and there may be less time for discussion, but you should still have had sufficient explanation before you sign the consent form. If after discussion with your hospital doctor or radiologist you do not want the procedure carried out, then you can decide against it.

If the radiologist feels that your condition has changed or that your symptoms do not indicate such a procedure is necessary, then they will explain this to you and they will communicate with the referring doctor who will review your situation as soon as possible. At all times, the radiologist and referring doctor will be acting in your best interests.

Points to remember

- Please bring any sprays or inhalers that you take regularly with you to the X-ray Department
- Leave any valuable possessions at home
- **If you have diabetes**, you are still required to starve before the examination. You should have been given an early morning appointment, no later than 10.15am. If this is not the case, please phone the number on your appointment letter and ask to be put through to the Fluoroscopy Appointments Officer to rearrange your appointment time
- If you are taking aspirin or warfarin, **please inform** the ward staff as this medication may need to be stopped prior to the procedure

Why do I need this procedure?

Previous X-rays or scans have shown an area of your bone may be abnormal. From the X-rays and scans, it is not always possible to say exactly what the abnormality is. The simplest way of finding out is by taking a tiny piece of it away for a pathologist to examine.

What is a biopsy?

A biopsy is a way of taking a small piece of tissue out of your body (in this case bone) using only a tiny cut in the skin and a thin needle. The biopsy will then be examined under a microscope by a pathologist (an expert in making a diagnosis from tissue samples). This method of taking a biopsy is sometimes referred to as a percutaneous biopsy.

Patient Information

The bone biopsy will be performed by a radiologist who will be assisted by a radiographer and a radiology nurse. It is not always easy to predict how complex or how straightforward the procedure will be and therefore how long it will take. As a guide, expect to be in the Radiology Department for about 45 minutes to 1 hour. However, much of this time is taken up by preparation.

You will normally be expected to rest on the ward for at least 4 hours after the procedure. If you have been admitted specifically for this procedure as a day case patient, you should then be able to go home.

The biopsy will take place in the Radiology Department in a CT scanner or fluoroscopy room.

What is a CT scan?

A CT scan is an X-ray examination that gives much more information than a normal X-ray. It produces detailed cross-sectional images of your organs, bones, and blood vessels.

What is fluoroscopy?

Fluoroscopy is a process that uses X-rays to produce a real time moving images on a monitor.

Preparation

- If you are taking any blood thinning drugs such as warfarin, or if you are aware that you may have bleeding problems, please call the telephone number on your appointment letter as soon as possible and ask that the radiologist performing your examination is notified. They will need to discuss this with your hospital consultant before your appointment can be confirmed. Your medication may need to be stopped before the procedure.
- You will have had some special blood tests to check your blood clotting ability 4 to 5 days before your appointment, or occasionally on the same day as your appointment, to check that you do not have an increased risk of bleeding. Vitamin K may be required before the procedure if your blood clotting ability is lower than desired.

Patient Information

- On occasion, there is a chance that the procedure may have to be postponed until your clotting ability has improved.
- **Please do not eat for the 6 hours** prior to your procedure time. You can drink water only until arrival in the Radiology Department.
- You may need a cannula (small tube) inserted into a vein in your arm to allow access for fluids and for administering medication such as antibiotics, prophylaxis, and analgesics.
- You will need to wear a hospital gown. The porters will collect you from the ward and bring you to the Radiology Department on your bed for the procedure.
- You will usually be admitted for the procedure as a day case. Occasionally, it is necessary for patients to stay overnight to hospital after the biopsy. For this reason, we advise that you prepare an overnight bag and bring this with you.

Sedation

You might be given a sedative via an injection into the back of your hand to help you relax and make you feel drowsy.

Due to you having sedation, it is vital that you are accompanied by an adult, and that you have made arrangements to be taken home (not on public transport).

It is also essential that a responsible adult will be with you for 24 to 48 hours after discharge.

The following restrictions are strongly advised for 24 hours (unless otherwise advised) due to the sedative being in your system:

- **Do not drive** (insurance implications)
- **Do not** take any form of alcohol
- **Do not** operate machinery or hazardous electrical appliances
- **Do not** sign any important legal documents as your judgement may be impaired

During your examination

The procedure will be explained to you by the radiologist. You will be able to ask any further questions that you may have. The procedure will only begin if you have signed the pink consent form.

Bone biopsy:

- You will be asked to lie, usually on your stomach, on the examination table. It is important that you stay very still in this position until the procedure is over. If you are uncomfortable, please let the doctor know.
- The fluoroscopy unit or the CT scanner will be used to decide on the most suitable place for inserting the biopsy needle. This area may be marked with a pen.
- Everything will be kept sterile. The radiologist will wear sterile gloves. Your skin will be cleaned with cold antiseptic solution and sterile drapes will be placed over this area. Your skin will be numbed with local anaesthetic injection. When the local anaesthetic is injected, it will sting to start with, but this soon wears off, and the skin and deeper tissues should then feel numb.
- The radiologist will insert the thin biopsy needle whilst looking at the images on the X-ray machine to ensure accuracy of positioning. You may be aware of a pushing sensation as the needle is positioned, but this is generally done so quickly that it does not cause much discomfort.
- If the procedure does become painful, you should tell the radiologist performing the biopsy and they may give you more local anaesthetic or intravenous analgesia such as pethidine.
- The first part of the procedure when the equipment is being prepared may seem to take a while, but the biopsy itself does not take very long at all. Once in place, the needle often makes a small clicking noise when the biopsy is taken - this should not alarm you. The radiologist may need to take 2 to 3 samples.
- When the procedure is finished, a small plaster will be placed to cover the incision and you will be returned to the ward.

Risks of the procedure

As with any procedure or operation, complications are possible. We have included the most common risks and complications in this leaflet. The possibility of these complications occurring will vary for each patient. The possibility of these happening to you will be discussed with you before you sign the consent form.

- Bleeding - Any biopsy carries a small risk of bleeding. On rare occasions, this may become severe.
- Infection - Occasionally there may be infection in the area surrounding the biopsy site. This can usually be treated with antibiotics.
- Unfortunately, not all biopsies are successful. This may be because, despite taking every possible care, the piece of tissue which has been taken is normal tissue rather than abnormal. Alternatively, although abnormal tissue has been obtained, it may not be enough for the pathologist to make a definite diagnosis. If you need any further investigations, they will be discussed with you in clinic
- There may be soreness around the biopsy site and some bruising.
- Despite these possible complications, the procedure is normally very safe. At all times during and after the procedure, the staff will be monitoring your responses to this treatment to minimize the effects of any complications.
- X-rays are a type of radiation. We are all exposed to natural background radiation every day of our lives. This comes from the sun, food we eat, and the ground. Exposure to X-rays carries a small risk, but your doctor feels that this risk is outweighed by the benefits of having the test. We will take all the safety precautions to minimise the number of X-rays you receive.

Safety

Under radiation legislation, all patients aged 12 and over will be asked to confirm whether there is any chance of pregnancy. As the test uses radiation, we must ensure that you are not pregnant before we start the examination.

After your examination

- You will be taken back to your ward. Nurses will carry out close and regular observations, such as taking your pulse, blood pressure and temperature. You will stay in bed for at least 4 hours. You should tell the nurses if you feel pain or a raise in your body temperature. You may be given more antibiotics.
- You should drink plenty of fluids and eat normally.
- If you have any problems after the procedure, please speak to the staff on the ward

How do I get the results?

The results will not be given to you immediately. They will be sent by the pathology department to the doctor who referred you to us for this examination, who will then discuss them with you at a future outpatient appointment in clinic.

Other sources of information:

For information about the effects of X-rays and information about radiology departments visit the NHS website: <https://www.nhs.uk/conditions/x-ray/>

Please note that the views expressed in these websites do not necessarily reflect the views of UHCW NHS Trust.

The Trust has access to interpreting and translation services. If you need this information in another language or format, please contact the telephone number on your appointment letter and we will do our best to meet your needs.

The Trust operates a smoke free policy.

To give feedback on this leaflet, please email feedback@uhcw.nhs.uk

Document History

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