

Bone Biopsy

Information for patients, relatives and carers

① For more information, please contact: **Radiology Department**

The York Hospital, Wigginton Road, York, YO31 8HE

Tel: 01904 631313

Or

Scarborough Hospital, Woodlands Drive, Scarborough, YO12 6QL

Tel: 01723 368111

About this leaflet

This leaflet tells you about the procedure known as a “bone biopsy”. It explains what is involved and what the possible risks are. It is not meant to replace discussion between you and your doctor, but we hope you find the information helpful.

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What is a “bone biopsy”?

A bone biopsy is a minor operation to obtain a small sample from a bone. The sample is then examined under a microscope by a pathologist, an expert in making diagnosis from small tissue samples. In a bone biopsy the sample is obtained by putting a needle through the skin into the bone.

Why do I need a bone biopsy?

You will probably have had other tests including scans, x-rays and blood tests. These will have shown that there is a potentially abnormal area in a bone. From these tests, it is not always possible to know the cause and the most accurate way to find out is to obtain a tiny piece of the bone for a pathologist to examine.

Who has made the decision?

The consultant in charge of your case feels that a bone biopsy is the best thing to do in order to give you the most accurate information about what is wrong and decide on the most appropriate treatment. Please speak to your medical staff about any concerns you may have, your views are very important to us. If, after discussion with your doctors you do not want the procedure carried out, then you can decide against it.

What kind of anaesthetic will I have?

Often the biopsy can be performed under local anaesthetic. This is an injection into the skin over the abnormality. It numbs the skin, the underlying soft tissues and surface of the bone.

Sometimes a general anaesthetic is required. If this is the case, a specially trained doctor (an anaesthetist) will be present during the procedure. The anaesthetist will put you to sleep for the procedure and then wake you up again at the end.

Rarely, an anaesthetic called a spinal anaesthetic is used. In this case the anaesthetist will give you an injection into the back to numb the feeling in your lower body and legs.

The kind of anaesthetic used depends on several factors, including the nature and location of the abnormality, and whether you have any other medical conditions. The medical staff will discuss the anaesthetic with you when they talk to you about the procedure. If you have any questions or worries then please ask.

What happens before the bone biopsy?

If you are not already an inpatient in the hospital, you will be admitted to a ward in the hospital on the day of the procedure.

If the bone biopsy is performed under general anaesthetic, you should have no food or cloudy drinks during the six hours before your admission. You should drink plenty of clear fluids (those you can see through) until two hours before your admission. You should not have anything to eat or drink during the two hours prior to your admission.

If it has not already been done, a sample of your blood will be taken on the ward and tested to make sure it clots normally.

A member of staff will see you and take a medical history from you. They will also answer any questions that you may have about the procedure. You will be asked to sign a consent form to give your permission to go ahead with the biopsy. Please remember that the hospital staff are here to help you. If you have any questions or worries at any stage then please ask.

What actually happens during the bone biopsy?

The bone biopsy will be performed in the X-ray department, in the CT scanning room. The CT scanner is used during the biopsy to ensure that the needle is in the correct position. A radiologist, a doctor specialising in using x-ray and scanning equipment, performs the biopsy. The biopsy is done with you lying on the CT scanner table. A nurse will be present and with you throughout.

If the biopsy is done under local anaesthetic, the radiologist will clean your skin with antiseptic and may cover some of your body with a sterile sheet. The radiologist will inject local anaesthetic into the skin over the abnormality, which stings for a few seconds. When the area has gone numb, the radiologist will make a tiny incision (cut) and insert the special needle used for obtaining a bone sample. During the course of injecting the local anaesthetic, introducing the biopsy needle and taking the sample the radiologist may take several pictures with the CT scanner to make sure that the needle is in exactly the right place.

The time taken to do the procedure varies but is usually around 40 minutes.

If the procedure is performed under general or spinal anaesthetic, an anaesthetist will be present and will introduce him/herself. The anaesthetic is usually given in the CT scanning room. When the anaesthetic has been given, the radiologist will make a tiny incision (cut) and insert the special needle used for obtaining the bone sample.

After the bone sample has been obtained some paper stitches may be applied to the skin and a small dressing will be placed over the biopsy area.

What happens after the bone biopsy?

If you have had a general anaesthetic you will first be taken to a recovery area near the operating theatres and then returned to the ward on a trolley with a nurse to escort you.

Careful attention is paid to ensuring that you have adequate medication to relieve pain following the procedure, but please let a member of the nursing staff know if you find that you are in pain or discomfort.

Depending on how you feel, you may eat and drink following the procedure.

Provided you are well, you will normally be able to go home, either later on the day of the procedure or possibly the next day.

Are there any risks, benefits or alternatives?

Bone biopsies are very safe procedures. However, as with any medical treatment, complications can arise.

There is usually a small amount of bleeding following the biopsy. In the very unlikely event of this continuing for longer than usual, then intravenous fluids, or very rarely, a blood transfusion may become necessary.

Depending on the precise site of the bone abnormality that is being sampled, there may be a small risk of damage to adjacent structures, for examples nerves.

Further information about this will be given during discussions with your doctor before you sign a consent form.

Unfortunately, not all biopsies are successful. This may be because, despite taking every possible care, the piece of tissue that has been obtained, is not suitable for pathological analysis. Every effort is made to obtain a satisfactory sample and the likelihood of an unsuccessful biopsy is low.

Despite these possible difficulties, bone biopsy is very safe and the small risks are outweighed by the benefits of more accurate information about the bone abnormality. The alternative is not to have the bone biopsy done or occasionally undergo a more major operation.

When do I get the results?

It always takes a few days for the bone biopsy sample to be processed. It is not therefore usually possible to give you a result before you leave the hospital. The consultant in charge of your care will arrange for you to receive the result as soon as possible.

Finally

We hope that this leaflet has answered many of your general questions. You should feel free to discuss the procedure, the possible risks and benefits in your particular case with the medical staff. Please make sure you are satisfied that you have received enough information about the procedure before you sign the consent form.

Tell us what you think of this leaflet

We hope that you found this leaflet helpful. If you would like to tell us what you think, please contact: Dr C. Davies, Consultant Radiologist, Department of Radiology, The York Hospital, Wigginton Road, York, YO31 8HE or telephone 01904 726674.

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Telephone: 01904 725566

Email: access@york.nhs.uk

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