

Percutaneous biopsy

Radiology Department Patient Information Leaflet

Introduction

This leaflet tells you about having a percutaneous biopsy. It explains what is involved and what the possible risks are. It is not meant to replace informed discussion between you and your doctor, but can act as a starting point for such discussions. If you have any questions about the procedure, please ask the doctor who has referred you for the test or the department which is going to perform it.

What is a percutaneous biopsy?

A needle biopsy is a way of taking a small sample of tissue out of your body, using a special needle. This allows the doctors to look at the sample under a microscope to find out what it is. This will allow an accurate diagnosis and treatment plan for you. As this biopsy is done through the skin, it is called a percutaneous biopsy.

Why do you need a biopsy?

Other tests that you have already had performed, such as an ultrasound scan or a computed tomography (CT) scan, will have shown that there is an area of abnormal tissue inside your body. From the scan, it is not always possible to say exactly what the abnormality is due to, and the simplest way of finding out is by taking a tiny sample and looking at it under a microscope.

Are there any risks involved?

Percutaneous biopsy is normally a safe procedure, but as with any medical procedure, there are some risks and complications that can arise. If you are having a liver, kidney or spleen biopsy, then there is a risk of bleeding, although this is generally very slight. If the bleeding were to continue, then it is possible that you might need a blood transfusion. Very rarely, an operation or another radiological procedure is required to stop the bleeding.

Infection can occur afterwards, but this is also rare. If you are having a lung biopsy performed, it is possible that air can get into the space around the lung (pneumothorax). This generally does not cause any real problems, but if it causes the lung to collapse, the air will need to be drained, either with a needle, or else with a small plastic tube inserted through the skin. Rarely, bleeding or other complications may cause a risk to life. Despite these possible complications, percutaneous biopsy is normally safe and is designed to save you from having a bigger procedure.

Unfortunately, some biopsies fail to give an answer. This may be because, despite taking every possible care, the piece of tissue which has actually been obtained is normal tissue rather than abnormal. Alternatively, although abnormal tissue has been obtained, it may not be enough for the pathologist (an expert in making diagnoses from tissue samples) to make a definite diagnosis. The radiologist doing your biopsy may be able to give you some idea as to the chance of obtaining a satisfactory sample.

Who has made the decision?

The consultant in charge of your care and the interventional radiologist performing the procedure have discussed your case and feel that this is the best option. However, you will also have the opportunity for your opinion to be considered and if, after discussion with your doctors, you no longer want the procedure, you can decide against it.

Are you required to make any special preparations?

You may need to be an inpatient in the hospital, although some biopsies are performed as an outpatient. You will probably have had some blood tests performed beforehand to check that you do not have an increased risk of bleeding. If you take any anticoagulant or antiplatelet medications (which make the blood ‘thinner’) we will most likely need to agree on a plan for these to be suspended for a number of days before the procedure. You may be asked not to eat for four hours before the procedure, although you may still drink clear fluids, such as water.

Who will you see?

You will be seen by a specially trained doctor called an interventional radiologist. They have special expertise in reading the images and using imaging to guide the needle to the abnormal area.

Where will the procedure take place?

The procedure will take place in the radiology department – either in the ultrasound room, CT scanner room, or a special X-ray room. It all depends on where the abnormal tissue is in the body and which imaging the radiologist feels is best for you.

What happens during the biopsy?

You will be asked to get undressed and put on a hospital gown. You may be given a sedative to relieve anxiety. What happens does depend on where the abnormal tissue is in your body and which type of imaging is being used.

Usually, you will lie on your back or front in the position that the radiologist has decided is most suitable. The radiologist will explain this to you before performing the biopsy. You may need to have a needle put into a vein in your arm so that the radiologist can give you a sedative or painkillers if required, although the vast majority of biopsies are performed using local anaesthetic.

A biopsy is performed under sterile conditions, and the interventional radiologist will wear a sterile gown and gloves to carry out the procedure. Your skin will be swabbed with antiseptic and you will be covered with sterile drapes. The radiologist will use an ultrasound probe, X-rays or the CT scanner to decide on the most suitable point for inserting the biopsy needle. Your skin near the point of insertion will be numbed using local anaesthetic, and the biopsy needle will be inserted into the abnormal tissue.

Will it hurt?

When the local anaesthetic is injected, it will sting for a short while, but this soon wears off. Some discomfort may be felt when the biopsy sample is taken.

How long will it take?

Every patient is different, and it is not always easy to predict. However, expect to be in the radiology department for about 30 minutes.

What happens afterwards?

You will be taken back to your ward. Nursing staff will carry out routine observations including your pulse and blood pressure. You will generally stay in bed for a few hours, until you have recovered and are ready to go home. It is important to have someone with you overnight after the biopsy for support in case any serious after-effects arise.

X-ray precautions

The procedure may use X-rays, and these use a small amount of radiation which may add slightly to the normal risk of cancer. Your doctor thinks that the benefit of the examination outweighs the risks. However, if you are concerned about these possible risks, please discuss these with this doctor.

For more information visit:

<https://www.gov.uk/government/publications/medical-radiation-patient-doses/patient-dose-information-guidance>

If you are a female patient, you must tell us if you are or might be pregnant before you attend for your scan.

Finally

Some of your questions should have been answered by this leaflet, but remember that this is only a starting point for discussion about your treatment with the doctors looking after you. Make sure you are satisfied that you have received enough information about the procedure.

Contact:

The British Society of Interventional Radiology

www.bsir.org

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If you have any questions, or if there is anything you do not understand about this leaflet, please contact:

The Radiology Department

Russells Hall Hospital switchboard number: 01384 456111

This leaflet can be downloaded or printed from:

<http://dgft.nhs.uk/services-and-wards/radiology>

If you have any feedback on this patient information leaflet, please email dgft.patient.information@nhs.net

This leaflet can be made available in large print, audio version and in other languages, please call 0800 073 0510.

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