Introduction:
This leaflet tells you about the procedure known as a percutaneous lung biopsy. It is not meant to replace informed discussion between you and your doctor, but can act as a starting point for such a discussion.

What is a percutaneous lung biopsy?
When a biopsy is done through the skin it is called a percutaneous biopsy. This is a way of taking a small piece of tissue from your body so that it can be examined under a microscope by an expert in making diagnosis from tissue samples.

Why do I need a percutaneous lung biopsy?
Other tests that you probably have had performed, such as an x-ray, an ultrasound or CT scan, will have shown that there is an area of abnormal tissue in your body. From these tests 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 piece of tissue for examination.

Who has made the decision?
Your Consultant and the Radiologist doing the biopsy will have discussed your situation and feel that this is the best thing to do. You will have the opportunity for your opinion to be considered and if after discussion with your doctors you do not want the procedure carried out, you can decide against it.

Where will the percutaneous lung biopsy take place?
Generally in the X-ray Department, either in the CT scanning room, ultrasound scanning room or in the special procedures room.

Who will be performing the percutaneous lung biopsy?
A specially trained doctor called a Radiologist. Radiologists have special expertise in using x-ray and scanning equipment and also in interpreting the images produced.

How do I prepare for a percutaneous lung biopsy?
You will need to be an in-patient and will probably have had some blood tests performed beforehand to check you do not have an increased risk of bleeding. You will be asked not to eat for four hours beforehand, though you may be allowed to drink some water. You will be asked to put on a hospital gown, before transfer to the X-Ray Department on a trolley.

If you have any allergies you must let the doctor know.

What actually happens during a percutaneous lung biopsy?
You will lie on the x-ray, ultrasound or CT scanning table, in the position that the Radiologist has decided is most suitable.

Your skin will be cleaned with antiseptic and you may have some of your body covered with a theatre towel to keep the area as clean as possible.

The Radiologist will use x-rays, ultrasound or CT scanner to decide on the most suitable point for inserting the biopsy needle. Your skin will then be anaesthetised with local anaesthetic and the biopsy needle inserted into the abnormal tissue. Several samples may be taken and then a dressing is applied.

Will it hurt?
Most tissue biopsies do not hurt at all. When the local anaesthetic is injected it will sting to start with, but this soon wears off and the skin and deeper tissues should feel numb. There will be a nurse, or another member of the clinical staff assisting the doctor as well as looking after you. If the procedure does become painful for you they will be able to arrange for you to have some painkillers.
How long will it take?
Every patient’s situation is different and it is not always easy to predict how complex or straightforward the procedure will be. It is usually over in half an hour, although you will be in the X-ray Department longer than this altogether.

What happens afterwards?
You will be taken back to the ward on a trolley. Routine observations, such as taking your pulse and blood pressure will be carried out to make sure there are no problems. You will stay in bed for a few hours, until you have recovered. You may have a chest x-ray performed a few hours later.

What happens next?
You may be allowed home the same day, or perhaps you will have been advised to remain in hospital overnight. As it takes a few days to do all the necessary tests on the biopsy specimen, you will not get the results before you leave.

Are there any risks or complications?
Lung biopsy is a very safe procedure, but as with any medical treatment there are a few risks and complications that can arise.

It is not unusual to produce a little bit of blood in your sputum after the procedure. However, occasionally bleeding can be more severe and you may lose more blood than expected. It is a rare complication but if it happens, you will require careful observation and admission to hospital for a few days. In most instances, it will settle on its own. However, very occasionally, you may require a surgical procedure to stop further bleeding.

Non-diagnostic biopsy - despite the best efforts of all people concerned, occasionally, the biopsy may not give a definitive diagnosis. If that happens, either a repeat biopsy or an alternative procedure may be considered after discussion with you.

Finally …
This leaflet should have answered some of your questions, but remember this is only a starting point for discussion about your treatment with the doctors looking after you.

We hope that you have found this information useful. If you have any questions, or you are worried about anything, please contact the X-ray Department at the Chesterfield Royal Hospital on 01246 512627.

You can get copies of this and other leaflets from our website at: www.chesterfieldroyal.nhs.uk