

Imaging Department

Investigative procedure information leaflet

Name of procedure: Percutaneous biopsy of Lung (CT guided)

It has been recommended you have a biopsy of your lung using CT (computerised tomography, which is a specialised form of X-ray) guidance. A biopsy is when a small sample of tissue is taken from a part of the body, the sample will then be processed and examined under a microscope or may be tested in other ways. The examination will help determine what problems (if any) there are with your liver and allow your doctor or consultant to advise you of the best treatment. Percutaneous simply means through a small hole (often no more than a needle puncture) in the skin rather than having to make a large incision.

You will be asked to lie on a couch which moves through a large ring, rather like a doughnut, you will not be enclosed in a tube. Within the ring of the scanner there is a source of X-rays and on the opposite side X-ray detectors. Thin beams of X-rays are passed through your body, pictures are produced using a computer showing a cross-section of your body and organs.

The cross-sectional images are used to locate precisely the area to take the biopsy and the best approach to make. Your skin will then be cleaned with antiseptic solution and local anaesthetic injected into a small area of skin and the surrounding tissues to minimise the discomfort associated with the procedure. You may be asked to hold your breath for 5-10 seconds whilst the needle is inserted, this should not be painful but you may feel some discomfort and pressure, a sample will usually be taken. Some techniques use a needle which produces a loud click when the sample is taken. You may feel some local discomfort following the procedure at the site of the biopsy.

This leaflet explains some of the benefits, risks and alternatives to the procedure, to help you make the best, informed decision as to your treatment. Please ask your radiological team about anything you do not fully understand or want to be explained in more detail.

We recommend that you read this leaflet carefully. You and your doctor (or other appropriate health professional) will also need to record that you agree to have the procedure undertaken by signing a consent form, which your health professional will give you.

Intended benefits of the procedure

The aim of the procedure is help determine what problems (if any) there are, by obtaining a sample of tissue for laboratory examination, and allow your doctor or consultant to advise you of the best treatment.

Serious or frequent risks

Your doctor has decided to recommend you have this procedure undertaken to help in your continuing treatment, in so doing he has balanced the benefits against any potential risks associated with it.

Percutaneous biopsy is considered to be a safe procedure. Occasionally complications can arise because of the test's invasive nature. These include:

- Bleeding;
Internal bleeding from the puncture site can occur. This bleeding will normally stop on its own. Occasionally the bleeding is more severe and a blood transfusion may be required.
- Pneumothorax ;
Where there is leakage of air from the lung, sometimes requiring a small tube to be inserted to drain the air and allow healing of the lung.

- Infection;
There is a small risk of infection.
- Discomfort
- Reaction to local anaesthetic;
There is a small risk of a reaction to the drug used.
- Accidental injury to other organs;

CT scanning involves the use of X-rays, and so has the usual risks associated with ionising radiation. Female patients who are or might be pregnant must inform a member of staff in advance. The amount of radiation is more than is used for an ordinary X-ray of the chest or body, and is equal to the natural radiation we all receive from the atmosphere over a period of approximately 3 years. This adds very slightly to the risk of, for example, developing a cancer. However, as one in three of us will develop a cancer at some stage during our lives, the added risk is very small, and also the risks from missing a serious disorder by **not** having a CT scan are considerably greater.

Many CT examinations involve you having a contrast medium injected into a vein in order to increase the amount of information obtained from the scan. The injection usually causes nothing more than a warm feeling passing around your body. There is a slight risk of an allergic reaction to the injection, such as a skin rash, but it may lead to an asthmatic attack or other significant complication. The doctors in the radiology department are trained to deal with any complications and again the risk involved is very small. If you had a reaction to a previous injection of contrast material given for a kidney X-ray (IVP/IVU) or a previous CT scan you should tell the radiographer at the time of your examination.

You will be cared for by a skilled team of doctors, nurses and other healthcare workers who are involved in this type of procedure every day. If problems arise, we will be able to assess them and deal with them appropriately. As with all invasive procedures, there is a very small risk that you may die from complications of the procedure.

Please let the Imaging Department know before attending for your procedure if you have;

- had a heart valve replacement;
- suffered from endocarditis;
- had a pulmonary shunt inserted;
- are taking any of the drugs mentioned below; or
- any allergies.

Other procedures that are available

The alternative procedures which would obtain a sample are to undergo surgery with resection or mini-thoracotomy. Your doctor can discuss this with you.

Your anaesthesia

Local anaesthetic will be injected to help ensure that you are comfortable during the procedure.

Preparation for your procedure

In general, you should have nothing to eat for eight hours, or drink for 2 hours before your biopsy, however, you may take your routine medications with sips of water.

You may need to have a blood coagulation test carried out before the biopsy. You will be informed of the arrangements for this test.

You can usually continue with your normal medication before your procedure, except those listed below in which case please inform your doctor and the radiology department. Please bring any medication you take with you, particularly if you are to be admitted.

Your normal medication

We will usually ask you to continue with your normal medication (except as instructed below) during your stay in hospital, so please bring it with you.

Aspirin

If you are taking aspirin regularly, please stop 5 days before the biopsy unless you have a high risk indication. eg have had a cardiac stent inserted within the last twelve months.

Clopidogrel, Dipyridamole, Cilastazol or Prasugrel

If you are taking any of these regularly please ring the Imaging department on 01527 512099. We will need to know why you are taking this medication and discuss this with you. You will need to stop taking these prior to your procedure, but this should only be done after discussion with the Referring Clinician.

Warfarin, Dabigatran and Rivaroxaban

If you are taking any of the above, it may need to be stopped prior to the procedure and alternative medication should be arranged with your referring Clinician. Please ring the Imaging department on 01527 512099. We will need to know why you are taking this and what your target INR is.

If you don't feel well and have a cough, a cold or any other illness when you are due to come into hospital for your investigation, we will need to know. Depending on your illness and how urgent your investigation is, your procedure may need to be delayed.

On the day of the procedure

You should attend your appointment 15 minutes before the stated time. Following the procedure you will usually be admitted for observation for a period of a few hours.

Prior to the examination the Consultant Radiologist who will be carrying out your procedure will be available to answer any queries you may have. Please let us know in advance if you are allergic to any antibiotics or other drugs.

During the investigation

In the examination room you will be made comfortable on the scanner couch. The procedure will then be performed as described above.

After your investigation

Following the procedure you will usually be admitted for observation for a period of a few hours.

A chest X-Ray will be obtained after one hour to rule out a pneumothorax requiring treatment.

Leaving hospital

Length of stay

Most patients having this type of test will be in hospital for 4 – 6 hours.

Medication when you leave hospital

Before you leave hospital, the pharmacy will give you any extra medication that you need to take when you are at home.

Convalescence

How long it takes for you to fully recover from your biopsy varies from person to person. It can take one to 2 days.

Once home, it is important to rest quietly for the remainder of the day.

If you have any of the following;

- breathlessness
- excessive bleeding from the biopsy site;
- experience excessive sweating;
- experience excessive shivering; or
- generally feel unwell.
- Increasing pain

Please contact your doctor.

Wound

A small waterproof or gauze dressing will be placed over the site after the test and can be replaced if needed.

Personal hygiene

You will normally bathe or shower as normal after you leave hospital.

Diet

You don't usually need to follow a special diet. If you need to change what you eat, we will give you advice before you go home.

Exercise

You should not participate in strenuous sports for the first 10 days after your biopsy. You should avoid heavy lifting and carrying heavy shopping.

Driving

You should not drive until you feel confident that you could perform an emergency stop without discomfort. It is your responsibility to check with your insurance company.

Work

When you return to work will depend on your job. If your job involves heavy manual work you may be advised to take a week off. If your job does not include manual work or lifting you may be able to return to work 2 days after the biopsy.

Test results

We will normally send the samples to a special laboratory in the hospital for tests. The results will not be available on the day of the examination. They will be sent to your referring consultant who will usually either write to you or arrange an out patient appointment.

Contact details

If you have any specific concerns that you feel have not been answered and need explaining please contact the following.

- Appointments Clerk, Radiology Booking Office, Alexandra Hospital
- Phone 01527- 512099
- Lung Specialist Nurse (phone 01527 512085)

Additional Information

The following Internet websites contain additional information that you may find useful:

- www.patient.co.uk
 - Information fact sheets on health and disease.

- www.radiologyinfo.org
 - For information on a wide range of radiological procedures.
- www.nhsdirect.nhs.uk
 - On-line Health Encyclopaedia and Best Treatments Website.

Patient Services Department

It is important that you speak to the department you have been referred to (see the contacts section) if you have any questions (for example, about medication) before your investigation or procedure.

If you are unhappy about the service you have received and would like to talk about it or make a formal complaint, please contact Patient Advice and Liaison Service on 0300 123 1733.

If you have a complaint and you want it to be investigated, you should write direct to the Chief Executive at Worcestershire Acute Hospitals NHS Trust, Charles Hastings Way, Worcester WR5 1DD or contact the Patient Services Department for advice.

Please contact Patient Services on 0300 123 1733 if you would like this leaflet in another language or format (such as Braille or easy read).

Bengali

“আপনি যদি এই লিফলেটটি বিকল্প কোনো ভাষায় বা ফরমেটে (যেমন ব্রেইল বা সহজ পাঠ) চান, তাহলে এই নম্বরে 0300 123 1733 প্যাশেন্ট সার্ভিসের সাথে যোগাযোগ করুন।”

Urdu

“اگر آپ کو یہ دستی اشتہار کسی متبادل زبان یا ساخت میں چاہیے (جیسے کہ بریل / ایڑی ریڈ) تو پیشنٹ سروسز سے 0300 123 1733 پر رابطہ کریں۔”

Portuguese

“Por favor, contacte os Serviços de Apoio ao Paciente através do número 0300 123 1733, caso precise deste folheto numa língua alternativa ou formato (como Braille / fácil de ler).”

Polish

“Jeżeli pragniecie Państwo otrzymać tę broszurę w innym języku lub formacie (Braille / duży druk) proszę skontaktować się z Obsługą Pacjentów pod numerem 0300 123 1733.”

Chinese

“如果您需要此份傳單的其他語言選擇或其他版本 (如盲人點字版/易讀版容易的閱讀), 請致電 0300 123 1733 與病患服務處聯繫。”

Comments

We would value your opinion on this leaflet, based on your experience of having this procedure done. Please put any comments in the box below and return them to the Clinical Governance Department, Finance Department, Worcestershire Royal Hospital, Charles Hastings Way, Worcester, WR5 1DD.

Name of leaflet: _____ Date: _____

Comments:

Thank you for your help.



Corporate member of
Plain English Campaign.
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