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اگر نیاز به ترجمہ دارید، لطفاً با شماره 01932 723553 تماس بگیرید۔

ਜੇ ਤੁਹਾਨੂੰ ਤਰਜਮੇ ਦੀ ਲੋੜ ਹੈ ਤਾਂ ਕਿਰਪਾ ਕਰਕੇ ਇਸ ਨੰਬਰ ਤੇ ਫੋਨ ਕਰੋ: 01932 723553

اگر آپ اس کا اردو زبان میں ترجمہ چاہتے ہیں، تو براہ کرم اس فون نمبر 01932 723553 پر رابطہ کریں

Se precisa de uma tradução por favor contacte: 01932 723553

আপনার অনুবাদের দরকার হলে এখানে যোগাযোগ করুন : 01932 723553

यदि आपको अनुवाद की ज़रूरत है तो कृपया इस नंबर पर फोन करें: 01932 723553

Jeżeli chcemy, aby te informacje w innym języku, proszę zadzwonić 01932 723553

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Tel: **01784 884488**

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Website: [www.ashfordstpeters.nhs.uk](http://www.ashfordstpeters.nhs.uk)

# Lung Investigations

## Respiratory Medicine







## CT scan of your chest

A CT scan is a type of X-ray test that takes detailed pictures of your body's organs. The CT clinic staff will tell you where and when you will be having your scan.

The person carrying out the scan is called a radiographer. They will explain the test and answer any questions that you have. You will have a cannula (small plastic tube) inserted into your veins before getting on to the scanner. You will also be asked whether you have ever had an allergic reaction to X-ray dye (also called contrast), and you should discuss this with the radiographer if you are worried.

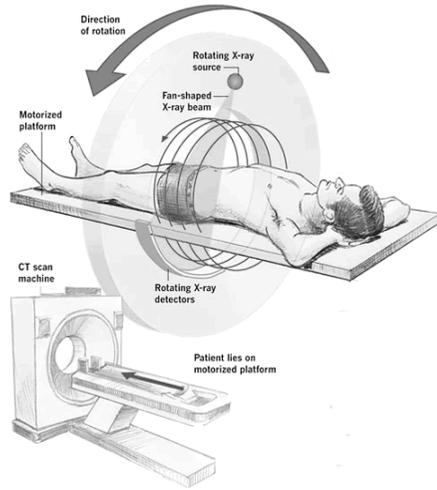
You will then be asked to lie on a flat couch which will then move you through the scanner. You may need an injection during the scan. Once you are on the couch, the test only takes about five minutes. You will not get the result straight away as the scan has to be reviewed by a specialist doctor. Your doctor will discuss the result of the scan with you the next time you are seen in outpatient clinic.

Your CT scan is booked for:

**Date:** .....

**Time:** .....

**Hospital:** .....



## Is there anything I should tell people?

If there is any procedure you don't want to happen, you should tell the people treating you. It is also important for them to know about any illnesses or allergies which you have or have suffered from in the past.

## Can I find out more about giving consent?

The Department of Health leaflet Consent - what you have a right to expect is a detailed guide on consent in versions for adults, children, parents, carers / relatives and people with learning disabilities. Ask for one from your clinic or hospital, or visit the website: [www.doh.gov.uk/consent](http://www.doh.gov.uk/consent)

## Who is treating me?

Amongst the health professionals treating you may be a 'doctor in training' - medically qualified but now doing more specialist training. They range from recently qualified doctors to doctors almost ready to be consultants. They will only carry out procedures for which they have been appropriately trained. Someone senior will supervise - either in person, accompanying a less experienced doctor in training or available to advise someone less experienced.

## What about anaesthesia?

If your treatment involves general or regional anaesthesia, where more than a small part of your body is being anaesthetised, you will be given general information about it in advance. You will also have an opportunity to talk with the anaesthetist when he or she assesses your state of health shortly before treatment. Hospitals sometimes have pre-assessment clinics which provide patients with the chance to discuss things a few weeks earlier.

## Consent

Before a doctor or other health professional examines or treats you, they need your consent. Sometimes you can simply tell them whether you agree with their suggestions. However, sometimes a written record of your decision is helpful – for example if your treatment involves sedation or general anaesthesia. You will then be asked to sign a consent form. If you later change your mind, you are entitled to withdraw your consent - even after signing.

## What should I know before deciding?

Health professionals must ensure you know enough to enable you to decide about treatment. They will write information on the consent form and offer you a copy to keep as well as discussing the choices of treatment with you. Although they may well recommend a particular option, you are free to choose another. People's attitudes vary on things such as the amount of risk or pain they are prepared to accept, that goes for the amount of information too. If you would rather not know about certain aspects, discuss your worries with whoever is treating you.

## Should I ask questions?

Always ask anything you want. The person you ask should do their best to answer, but if they don't know they should find someone else who is able to discuss your concerns. To support you and prompt questions, you may like to bring a friend or relative. Ask if you would like someone independent to speak up for you.

## CT Telephone numbers:

Ashford Hospital                   01932 722401

St Peter's Hospital               01932 722401

## PET – CT Scan

You may need a PET-CT scan as part of your lung tests. Your doctor or nurse specialist will let you know if you need this test. PET stands for Positron Emission Tomography. It is very similar to the CT scan that you will have already had, although during a PET-CT scan you are given a special injection (mildly radioactive drug) that may cause some areas of your body to light up on the scan. These areas are where the activity of the cells are greater than normal. This will help the team of doctors decide what the best treatment is for your lung condition.

The PET-CT scanner is based in Guildford Diagnostic Imaging, Egerton Road, Guildford, Surrey GU2 7XU and is provided for the NHS by a company called Alliance Medical. The test will be performed by a radiographer who will be able to explain the test and answer any questions that you have.

You will be contacted by telephone by Alliance Medical and will discuss a convenient date and time for you to have the test. They will inform you of what you need to do before the scan. Generally, you can drink clear fluids but should avoid food or sugary drinks for 4-6 hours before the scan and take your usual medications. **However, if you are diabetic, you will receive a letter detailing what you need to do before the scan.** The radiographers will check your blood glucose level prior to the test, and if it is too high then the test may have to be rearranged.

You will have a cannula (small plastic tube) inserted into one of the veins in your arm. The radioactive drug will be given through

this. You will then be asked to rest for around an hour to give the drug time to spread all over the body. You will then be asked to lie flat on your back on a narrow platform on the scanner (as in the above picture). The test itself lasts around 30-60 minutes.

You will not get the result of the test the same day. The results will be available for your doctor to discuss with you when you come back to clinic.

Your PET-CT scan is booked for:

**Date:** .....

**Time:** .....

**Guildford Diagnostic Imaging Tel: 01483 303106**

## **Bronchoscopic Procedures**

You may need a bronchoscopic procedure as part of your investigations. There are two different types of this procedure and you will be informed by your doctor or consultant as to which one is required.

- **Bronchoscopy** – your doctor will pass a long flexible telescope (thinner than a pencil) through your nose or mouth into the air passages in your lungs and will examine the airways. It is also likely that a biopsy will be taken.
- **Endobronchial Ultrasound (EBUS)** – your doctor will perform the same test as a bronchoscopy (see above) but will also undertake an assessment of the lymph nodes using an ultrasound probe and will take biopsies from these nodes.

## **Lung function tests**

You will have probably done a blowing test when you first came to your appointment, you may also need some extra lung tests. These tests will happen in the Lung Function Department located on level 3 in the outpatients department.

The tests are performed by a physiologist. They will be able to explain exactly what you need to do during these tests. You do not need any special preparation before these tests. If you normally take inhalers you will get instructions about your inhalers in your appointment letter.

Your lung function test is booked for:

**Date:** .....

**Time:** .....

**Lung Function Department, St. Peter's Hospital  
Tel: 01932 722805**

## Removal of pleural fluid

Sometimes fluid builds up in the lining of the lung - this is called pleural fluid. If this is seen on your CT scan, the doctors may arrange for you to have some of this fluid removed. This fluid can then be sent to the laboratory to help doctors find out why it has accumulated. If large amounts of pleural fluid build-up, this can make patients feel breathless. If this happens, doctors can remove large volumes (sometime 2 or 3 pints) to relieve some of this breathlessness.

If you are just having fluid removed, you can eat and drink normally before the procedure. The doctors will locate the fluid using an ultrasound machine, and the fluid is then removed using a small needle. Local anaesthetic is used to numb the area before the fluid is removed. You will be awake during the procedure. You should not have this test whilst taking warfarin tablets, your doctor will go through this with you in clinic.

After the fluid removal, you will sometimes need an X-ray. You will not be given results the same day. Your doctor will be able to discuss the results with you when you next return to clinic.

Your pleural fluid removal is booked for:

**Date:** .....

**Time:** .....

**Pleural Clinic, St. Peter's Hospital is located on Aspen ward**

**Tel: 01932 723920**

## What happens during the test?

The test happens under light sedation. This means that you will be given an injection to make you sleepy, but you will not lose consciousness. Your doctor will also spray a local anaesthetic in the back of your throat. This tastes bitter and makes your throat numb. A nurse will be with you during the test. The doctor will then perform the test as described above. The test will take between 15-45 minutes.

## What do I need to do before the test?

You should have nothing to eat or drink from midnight the night before the procedure. You should take your normal tablets, although if you take warfarin, aspirin or clopidogrel you should stop these five days before the test. If you are diabetic then you should be given advice about this by your doctor or Lung Nurse Specialist.

Both tests are generally very safe, and many hundreds are performed at St Peter's Hospital each year, your doctor will be able to discuss the possible risks with you and answer any questions before starting the test and will ask you to sign a consent form.

## What happens after the test?

Following the test you will be taken to a recovery room where a nurse will look after you for about 1 hour. You will not be allowed to eat or drink for 1 hour. You may occasionally cough up small amounts of blood after the test. Sometimes you may need an X-ray following the test.

You can go home the same day provided there is someone to pick you up and stay with you overnight. You should not drive a

car, operate machinery or drink alcohol for 24 hours. If there is no one to stay with you overnight then we will arrange for you to stay in hospital overnight and go home the following morning.

### **When will I find out the result?**

You will not be told the results on the day of the test. Your doctor will discuss the findings and any biopsy results when they next see you in clinic.

Your test is booked for:

**Date:** .....

**Time:** .....

**St Peter's Hospital Tel: 01932 722305 / 01932 723122**

### **Endobronchial Ultrasound (EBUS)**

You may require an EBUS to examine and biopsy enlarged lymph glands that have been seen in your chest.

An EBUS is a test where a tube with a camera on the end is passed into your oesophagus (gullet). The camera has a small ultrasound scanner at the tip and allows us to get detailed pictures of enlarged lymph glands. Biopsies can also be taken at the same time. The test takes around 30 minutes but can be longer if samples of the lymph glands are taken. You should expect to be in the endoscopy unit for 1 ½ to 3hrs.

Usually, there is very little preparation necessary. However, if you take an anticoagulant (blood-thinning drug) such as warfarin, aspirin or clopidogrel you may be asked to stop taking this for a few days before the biopsy.

### **What happens after the test?**

Most fine needle aspirations are carried out without any problems. Commonly, you may feel a little sore for a couple of days after the test. You may develop a bruise at the site where the needle was inserted. Complications are uncommon but can include:

- bleeding
- infection
- other complications specific to the site of needle insertion

In addition, there can be rare complications from a biopsy of the liver and very occasionally a patient may die as a result of this. This happens in around 1 in 1000 patients.

### **When will I find out the result?**

You will not be told the results on the day of the test. Your doctor will discuss the results when they see you next in the clinic.

Your fine needle aspiration is booked for:

**Date:** .....

**Time:** .....

**Radiology Department, St Peter's Hospital Tel: 01932 722500**

no one to stay with you overnight then we will arrange for you to stay in hospital overnight and go home the following morning.

You will not be given results the same day. Your doctor will be able to discuss the results with you when you next return to clinic.

Your lung biopsy is booked for:

**Date:** .....

**Time:** .....

**Radiology Department, St Peter's Hospital Tel: 01932 722500**

### **Fine Needle Aspiration**

You may need a fine needle aspiration as part of your investigations. This procedure involves using a thin needle to remove samples of tissue (biopsy) or fluid from an organ of the body or a lump found under the skin.

If you require a biopsy of a neck lymph node, this is a minor procedure where you can go home on the same day. You may also drive after this test.

If you require a biopsy of an organ, such as the liver or adrenal gland, then you will need to have someone to stay with you overnight and are not allowed to drive home.

Usually, the test can be done without the need to make a cut in the skin. If the lump being tested is very small it might be necessary to use a scanning machine to help guide the needle to the right place. This may be done by using an ultrasound machine or CT scan (see page 6).

### **What happens during the test?**

The test happens under light sedation and local anesthetic to numb your throat. Patients with heart and breathing problems may not be offered sedation as the risk of breathing complications during the test is increased. Sedation will relax you, but you will not lose consciousness, some patients feel a little sleepy. The doctor then passes the tube into your oesophagus (gullet) and starts the procedure.

***If you are having sedation you MUST bring someone with you and arrange for someone to take you home you should not drive or use the bus or train. Someone will also need to care for you for 24hrs.***

### **What are the risks of the procedure?**

The risks associated with the test will be on your consent form and discussed with you in the endoscopy unit by the doctor. If you are concerned about the risks please discuss them with the nurses in the endoscopy department.

### **What do I need to do before the test?**

You should have nothing to eat or drink for six hours before the EBUS. You should take your normal tablets, if you take Warfarin, Aspirin or other blood thinning drugs you should be given advice of when to stop these before your test.

### **What happens after the test?**

Following the test you will be taken to the recovery room where you will be looked after by a nurse. When recovered, you will be allowed to go home. You must not drive, drink alcohol, operate machinery, go to work or sign legal documents for 24 hours after the test.

## **When will I find out the results?**

You will not be told the results on the day of the test. Your doctor will discuss the findings and the biopsy results when you are next seen in clinic.

Your EBUS is booked for:

**Date:** .....

**Time:** .....

### **Endoscopy Department at St Peter's Hospital**

Tel: **01932 723975 / 01932 723851**

## **Lung biopsy**

You may need a lung biopsy. This is a way of getting a very small piece of lung tissue by passing a needle through the skin into your chest.

## **What happens before the test?**

You can eat and drink before the test, and should take your tablets as usual. You should not have this test whilst taking warfarin, aspirin or clopidogrel tablets and you will be informed by your doctor or nurse specialist when you need to stop them which is usually around 5 days before the procedure.

## **What happens during the test?**

You will be awake during the test. You will be given a small injection of local anaesthetic to numb the skin before the biopsy is taken. The test should not hurt and if you have any pain or discomfort then tell the doctor who is performing the test.

Most lung biopsies are done in the CT scanning department. Another CT scan will be taken just like the original CT scan you had. The doctor will use the pictures to decide where to place the needle. Sometimes lung biopsies are taken using ultrasound rather than CT. Ultrasound is a test where a plastic probe is put on your chest which then displays pictures of your chest on a computer screen.

## **What are the risks?**

Commonly, a little air leaks into the space around the lung during the biopsy. This is called a pneumothorax. This happens about 1 time in every 5 tests, but usually the leak is so small that it doesn't cause a problem and no extra treatment is needed.

Occasionally, air leaks occur and the doctors may need to put a small tube into the lining of your lung. This is called a chest drain, the doctor will discuss this further with you when you sign the consent form before having the test done. If you need a chest drain, then you will probably stay in hospital for a couple of days.

## **What happens after the test?**

Once the biopsy is done, you will need to lie flat in bed for a few hours. If you are unable to have someone stay with you overnight following the procedure, you may need to stay overnight in hospital. You should be able to go home the same day. You should avoid flying for 6 weeks following a biopsy. If you become breathless once you've gone home you should return to A&E straight away.

You can go home the same day provided there is someone to pick you up and stay with you overnight. You should not drive a car, operate machinery or drink alcohol for 24 hours. If there is