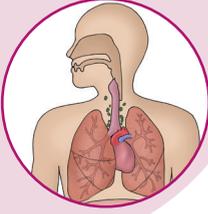


Lung Investigations

Information for patients





Your lung specialist thinks you may have a lung condition that needs urgent investigation.

This booklet describes some tests that might be necessary over the next few days and weeks. Your doctor will be able to explain which have been booked already, and which may happen in the future. You will not need to have all of these tests.

You will be given contact information about what to do if you are unwell after a procedure. This will be given to you by the department where you have the test.

Patient sticker

The clinical team

You will usually be under the care of one of the Respiratory Consultants:

- Dr Rodger
- Dr Paramasivam
- Dr Kennedy
- Dr Robson
- Dr Callister
- Dr Gracie

You will have met one of the consultants or one of their registrars at your first clinic appointment. They work as a team so it is likely that you may meet another doctor at future appointments. If you need to get in touch with the Consultant the secretary's number is **0113 206 4159**

Please bring this booklet with you to all of your appointments

You may also meet one of the Lung Nurse Specialists who work as a team to help provide support during the investigations.

Your Lung Nurse Specialist is:
.....

The Lung Nurse Specialist Advice Line telephone number is **0113 206 7916**. There is an answerphone so please leave your name and contact number and they will return your call. (Monday - Friday 9am - 4pm).

Further clinic appointments

Once you have the tests, your doctors will want to see you back in clinic to discuss the results. Following these appointments, you may get referred on to other doctors for further stages of your treatment. Your doctor or nurse specialist will be able to explain about this when you come for your follow-up appointment.

Your next outpatient appointment is at:
You may wish to bring someone with you to this appointment.

Dr.....**'s clinic**

Date:...../...../..... **Time:**.....

Moynahan Surgical Outpatients, Level 0, Bexley Wing,
St James's University Hospital.

Further outpatient appointments are:

Date:...../...../..... Time:.....

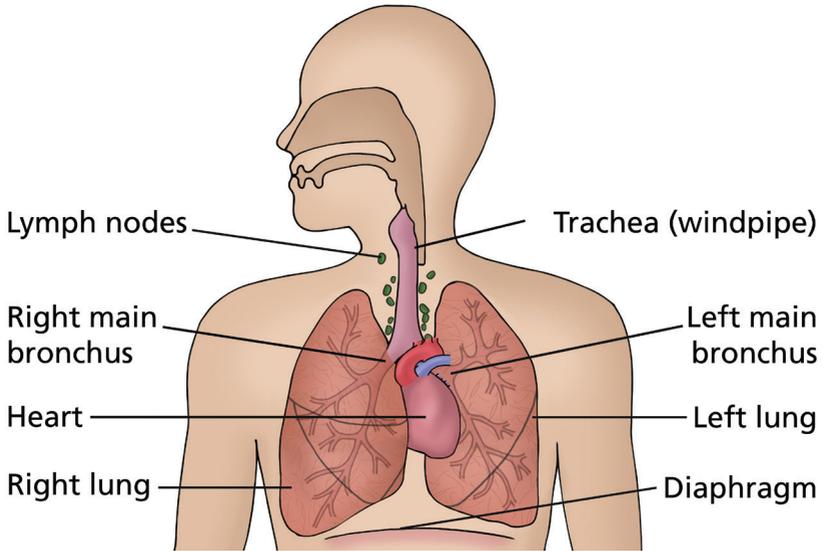
Hospital:.....

Date:...../...../..... Time:.....

Hospital:.....

Notes Page

As part of your consultation today, you have had the opportunity to discuss your concerns and needs along with possible solutions. This is called a 'Holistic Needs Assessment'.



This is your plan of care:

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 scanners are in Jubilee Wing at Leeds General Infirmary, Bexley Wing and Lincoln Wing at St James's Hospital (called the Celia Craven CT Scanner).



The 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 onto 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:.....

CT Telephone numbers: 0113 733 4979

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 that may cause some areas of your body to light up on the scan. This will help the team of doctors decide what is the best treatment for your lung condition.

The PET-CT scanner is based in Bexley Wing, St James's University Hospital 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 water, 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 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:**.....

Hospital: St. James's Hospital, Bexley Wing, Level 1.

Tel: 0113 206 8326

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 Lung Nurse Specialist which one is required.



1) 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.

2) 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.

What happens during the test?

The test will be done under light sedation. This means that you will be given a relaxing 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 for four hours before the procedure. You should take your normal tablets, although if you take warfarin or clopidogrel you should stop these seven 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 James's Hospital each year. There can however be rare complications and very occasionally a patient may die as a result of the test. Nationally, the chance of this happening is thought to be about about one time in three thousand patients. 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 one hour during which time you will not be allowed to eat or drink. 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. Do not sign any legal documents for 24 hours after sedation.

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:**.....

Hospital: St James's Hospital, David Beevers Unit.

Tel: 0113 206 6653

Endoscopic Ultrasound (EUS)

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

An EUS 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 1½ to 3 hours.

What happens during the test?

The test happens under light sedation and local anaesthetic 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. 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 EUS. You should take your normal tablets. If you take Warfarin 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 EUS is booked for:

Date:...../...../..... **Time:**.....

Hospital: St James’s Hospital, Bexley Wing, Endoscopy Department, Level 0.

Tel: 0113 206 5596

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 seven 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?

Common side effects include coughing up a few streaks of blood which usually stop after a few days and also slight pain from the biopsy site.

In about 1 in 5 lung biopsies a small amount of air leaks into the space around the lung but is usually so small that no extra treatment is needed and doesn't cause a problem. However, if the air leak is larger, the doctor may need to put a small tube, called a chest drain, into the lining of your lung and you will need to stay in hospital for a few days. This complication occurs in less than 1 in 20 lung biopsies.

Very rare complications include coughing up a large amount of blood, a clot in the lung, stroke, heart attack, kidney damage or even death. These complications occur in less than 1 in 2000 lung biopsies.

What happens after the test?

Once the biopsy is done, you will need to lie flat in bed for a few hours. Provided there is someone at home with you, you should be able to go home the same day. If you do not have someone to stay with you, you may need to stay overnight in hospital. Provided there is someone at home with you, you should be able to go home the same day. You should avoid flying for six weeks following a biopsy. If you become breathless once you've gone home you should return to A&E straight away.

You should not drive a car, operate machinery or drink alcohol for 24 hours. 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:**.....

Hospital: St James's Hospital, Radiology Department, Level 0,
Bexley Wing **Tel:** 0113 206 6140

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 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. You may need to be admitted overnight for an organ biopsy if there is no-one to stay with you.

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).

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:**.....

Hospital: St James’s Hospital, Ultrasound Department,
Level 0, Bexley Wing

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 (sometimes 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, and 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:**.....

Hospital: St James's Hospital, David Beevers Unit

Tel: 0113 206 6653

Lung function tests

You will have probably done a blowing test when you first came to your appointment at the Leeds Chest Clinic. You may also need some extra lung tests. These tests will happen in the Lung Function Department in Chancellor Wing at St James's Hospital.



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 should take these as usual before coming for the test.

Exercise test



Occasionally your doctor may want you to do an exercise test. This will involve riding an exercise bike whilst measurements are taken of your breathing, heart rate and blood pressure.

This test will happen in the Lung Function Department in Chancellor Wing at St James's Hospital or in Jubilee Wing at Leeds General Infirmary. The physiologist who performs the test will be able to explain exactly what the test involves before it starts. The test can stop at any time if you become too tired or feel unwell.

Stop Smoking Support Sessions

Leeds Integrated Healthy Living Service - One You Leeds.

To book a place, phone 0800 169 4219 or online at:

www.oneyouleeds.co.uk/sign-up

Be Smoke Free - Patients benefit from six free sessions designed to help them kick the habit. The patient can choose from private and confidential one to one consultations, or take part in supportive group sessions. Patients will also have access to nicotine replacement therapy and other stop smoking medication.

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.

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, order one from the NHS Responseline (555 455) or read it on the website 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?

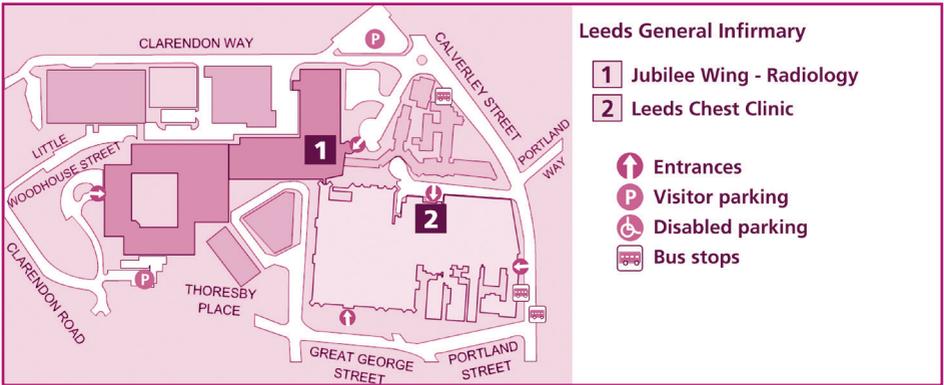
If your treatment involves general or regional anaesthesia (where more than a small part of your body is being anaesthetised), you'll be given general information about it in advance. You will also have an opportunity to talk with the anaesthetist when he or she assesses your state of health shortly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

Questions for the doctor or nurse

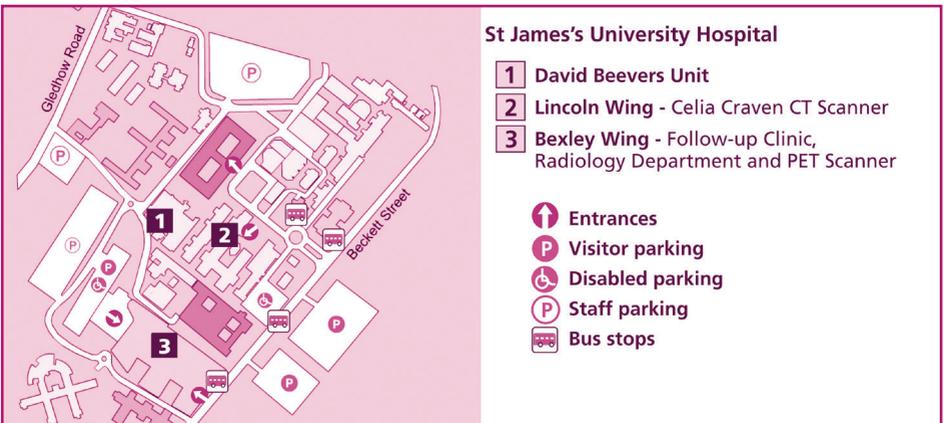


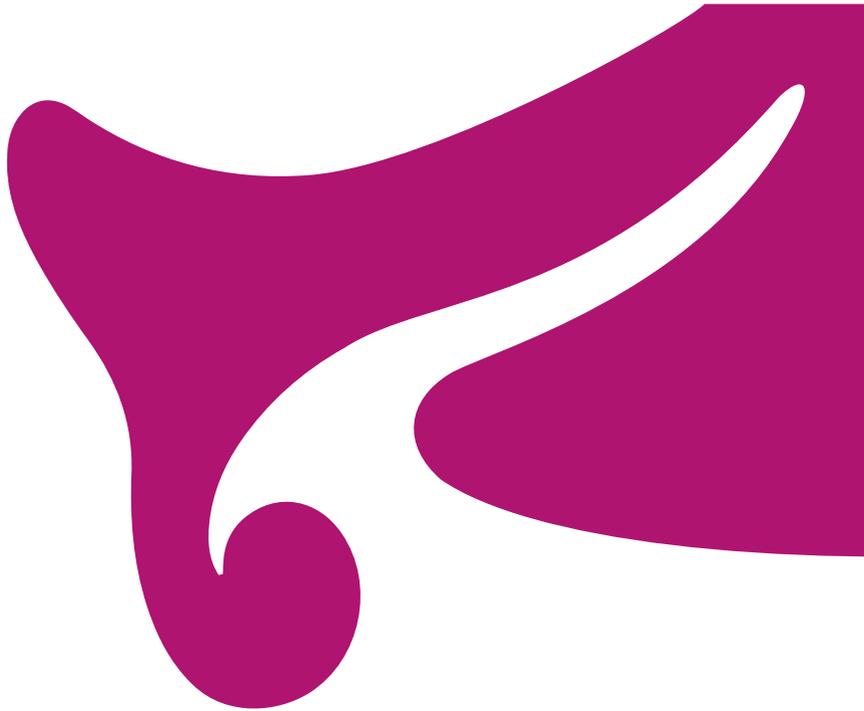
Hospital sites

Leeds General Infirmary



St James's University Hospital





What did you think of your care?

Scan the QR code or visit bit.ly/nhsleedsfft

Your views matter



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