

Respiratory medicine

Bronchoscopy

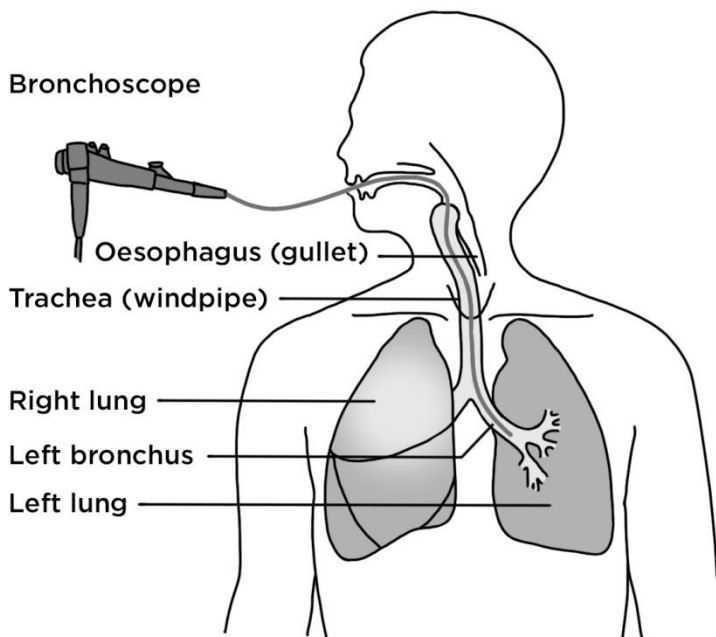
Information for patients, relatives and carers

Introduction

This information sheet has been provided to help answer some of the questions you may have about your appointment for bronchoscopy. Please feel free to ask our team any questions you have about the information below.

What is bronchoscopy and what are the benefits of having the test?

Bronchoscopy allows your doctor to look directly at the voice box, windpipe and bronchial air passages. The test involves passing a bronchoscope (a long, thin, flexible telescope with a bright light on the end) into your lungs either through your mouth or your nose. Looking down the bronchoscope, the doctor can get a clear view of the lining of the airways to check whether any disease is present. The diagram below shows a bronchoscopy procedure.



During the test, photographs can be taken using a special video attachment on the bronchoscope. Sometimes the doctor will take a sample of cells by flushing the airways with a sterile salt solution or gently brushing the airways. These will be sent to the laboratory. The doctor may also take small samples from the lungs for analysis by removing small pieces of tissue through the bronchoscope using tiny forceps. This will not cause any pain.

The test usually takes up to 20 minutes to complete.

The results of the bronchoscopy will help your doctor confirm your diagnosis and decide on the best treatment for you.

What are the risks of having the test?

Serious or life-threatening complications during the procedure are **very** rare. However, you may experience some of the following side effects:

- you may cough and feel slightly breathless during the test
- you may have a sore throat and hoarse voice for a few days following the test
- Sometimes the airways bleed. This is usually in small amounts and occurs more commonly when samples of tissue or cells are taken. It is not unusual to cough up small amounts of blood for 12 to 24 hours after the test. However, if the bleeding has not stopped after this time

you should contact one of the chest doctors (contact details are at the end of this information sheet). Outside of working hours (09.00-17.00), you should go to your local A&E department. The risk of serious bleeding is approximately 1 in 400 people

- When a sample is taken from deep in the lung (known as 'transbronchial biopsy'), there is a risk of the lung collapsing. A collapsed lung occurs when air escapes from the lung and fills up the space outside of the lung, inside the chest, due to a small puncture in the lung. This happens to approximately 1 in 20 people who have a transbronchial biopsy performed (not everyone will require this test). If you are having this type of biopsy, your doctor will have explained this to you when asking you for your consent for the procedure. If the collapse is minor, nothing will need to be done but you may have to stay in hospital for 24 hours for monitoring. If the lung has to be re-expanded because you are breathless, a tube will be placed into the space between the lung and the chest wall to allow the air to escape. You will then need to stay in hospital for a few days while the lung heals
- It is common to have a fever for a few hours after having a bronchoscopy. This should not last for more than 24 hours. Taking paracetamol should help reduce symptoms
- There is a small risk of developing a chest infection, which occurs in fewer than 5 in 100 people. However, it will respond quickly to antibiotic tablets so if you feel unwell following the test you should consult your GP

If you have asthma or bronchitis, you may experience wheezing and coughing during or after the bronchoscopy. If this happens, you may be given a nebuliser and/or a course of prednisolone (corticosteroids) after the bronchoscopy

- Death from bronchoscopy has been described as occurring in around 1 in 5,000 cases. Almost always, however, the patients who have died from bronchoscopy have been very ill in hospital beforehand

Are there any alternatives to having this test?

Before having this test, you will already have had x-rays and scans. There is usually no alternative to a bronchoscopy to find out exactly what is causing your symptoms.

Is there anything I need to do before coming into hospital?

Please do not have anything to eat or drink (not even chewing gum, sweets or water) for four hours before your appointment. It is best not to smoke prior to the procedure.

If you normally take any medication, check with your doctor or nurse when you should take them on the day of the test. Please bring a list of your medications to the appointment. Please also tell your chest doctor or nurse if you are on insulin or tablets for diabetes, or on blood-thinning medication such as warfarin, aspirin or clopidogrel, as special arrangements **may** need to be made.

Due to the fact that you will be fasting we **usually** advise people not to take their diabetic medications on the morning of the procedure.

Warfarin:

Usually stopped 5 full days before the procedure. You will need an 'INR' blood test 1-2 days before the procedure to ensure your 'INR' is below 1.5. Please let us know if you are on warfarin and why, as in some situations, we may give you an alternative shorter-acting agent to take instead, in the lead-up to your procedure

Aspirin:	Do not take on the morning of the procedure
Clopidogrel:	Usually stopped 7 full days before the procedure
Dipyridamole:	Usually stopped 7 full days before the procedure
Ticagrelor:	Usually stopped 7 full days before the procedure
Rivaroxaban:	Usually stopped 2 full days before the procedure
Apixaban:	Usually stopped 2 full days before the procedure
Dabigatran:	Usually stopped 2 full days before the procedure
Dalteparin (injections):	Usually stopped 1 full day before the procedure
Enoxaparin (injections):	Usually stopped 1 full day before the procedure

Please do not wear nail varnish, as this interferes with a finger probe that we use to measure your oxygen levels.

You need to arrange for someone to escort you home after your bronchoscopy, as it will not be safe for you to drive or travel alone on public transport. Please make sure that these arrangements have been made before you come for your appointment.

If your doctor does not think you are well enough to return home after the test, they may ask you to remain in hospital overnight for observation. Please allow for this possibility.

What happens before the test?

Before the procedure begins, you will be asked for your consent. Your doctor and/or nurse will carefully explain the procedure involved and details will vary according to each individual case. No medical treatment can be given without your written consent.

If you do not understand what you have been told, let the staff know straight away, so they can explain again. You may also find it useful to write a list of questions before your appointment and to have a relative or friend with you to help you remember the discussion when the procedure is explained.

If you have breathing problems (such as asthma or COPD), your doctor may refer you for a breathing test before the bronchoscopy is done.

What happens during the test?

The bronchoscopy will be done in the endoscopy department, where you will be made comfortable on a couch. A small probe will be attached to your finger to measure the level of oxygen in your blood and to measure your pulse rate. The doctor will spray your the back of your throat (and possibly your nose) with local anaesthetic to make the test more comfortable for you.

The doctor will ask if you would like a sedative injection to make you relaxed. This will be delivered via a small needle placed in your arm. You will not be completely asleep (as you might be for a major operation), and will remain awake enough to tell the doctor if you have any discomfort.

The doctor will then pass the bronchoscope through a nostril or your mouth into the air passages, where further local anaesthetic is inserted through the bronchoscope to numb the voice box. Except for occasional coughing, you should not experience any discomfort or pain. If during the test you need to have oxygen, it will be given to you via a very small tube placed in/under your nostrils.

Imperial College Healthcare NHS Trust supports the training of respiratory registrars. Your consent or procedure may be undertaken by these trainees who are supported and supervised by qualified trainers within the endoscopy department.

What happens at the end of the test?

It usually takes up to 20 minutes to examine all of the air passages. At the end of the examination, the doctor will remove the bronchoscope, which should cause little discomfort to you.

Your throat will be numb from the local anaesthetic for about an hour after the test. During this time, you will not be allowed to eat or drink as it may go down the wrong way.

You should be able to go home later the same day. However, if your lungs have collapsed, your doctor may ask you to stay in hospital overnight for observation.

What happens when I get home?

After your bronchoscopy, you may experience some of the side effects below. These may last up to two days, including:

- a sore throat, although this should only be slight
- coughing up some flecks of blood or noticing blood when blowing your nose
- flu-like symptoms. If this happens, rest at home and keep cool

It is unlikely that you will have any serious complications.

If any of these symptoms last for more than 48 hours and you are worried, contact the hospital where you were treated (see contact details at the end of this leaflet). Outside of these hours or if you are very unwell go to the nearest A&E department.

If you have had sedation during your bronchoscopy, you must **not**, for the next 24 hours:

- drive a car or ride a bicycle/motorbike
- operate any machinery (this includes kitchen appliances)
- drink alcohol
- sign any legal or important documents
- take any sleeping tablets, cough medicine or cold remedies

This is because the sedative makes you drowsy (for up to 24 hours) and reacts with alcohol and some medication.

You may eat and drink as normal two hours after your appointment.

If you get any chest pain, have worsening breathlessness or start coughing up large amounts of blood, please go to your nearest A&E department immediately.

You should have an appointment booked with your chest doctor to get the results of your bronchoscopy test. Results tend to take 7 to 14 days to become available.

Who do I contact for more help or information in advance?

Please do not hesitate to contact us if you have any queries or concerns:

- **Hammersmith Hospital**
Respiratory secretaries
Telephone: 020 8383 3269 or 020 3313 1178
- **Charing Cross Hospital**
Respiratory secretaries
Telephone: 020 3311 7198
- **St Mary's Hospital**
Chest and Allergy Clinic Nurses
Telephone: 020 3312 1836

If the team is not available to answer the phone, please leave a message on the voicemail and they will aim to return your call within 24 hours. Messages left on Fridays will be responded to on Mondays.

Who do I contact if I have issues on the day of my test?

Please let us know if you are running late or unwell on the day of your test:

- **Hammersmith Hospital**
Endoscopy department
Telephone: 020 3313 2645
- **Charing Cross Hospital**
Endoscopy department
Telephone: 020 3311 1941
- **St Mary's Hospital**
Endoscopy department
Telephone: 020 3312 6681

How do I make a comment about my visit?

We aim to provide the best possible service and staff will be happy to answer any of the questions you may have. If you have any **suggestions** or **comments** about your visit, please either speak to a member of staff or contact the patient advice and liaison service (**PALS**) on **020 3313 0088** (Charing Cross, Hammersmith and Queen Charlotte's & Chelsea hospitals), or **020 3312 7777** (St Mary's and Western Eye hospitals). You can also email PALS at pals@imperial.nhs.uk. The PALS team will listen to your concerns, suggestions or queries and is often able to help solve problems on your behalf.

Alternatively, you may wish to express your concerns in **writing** to:

Chief executive - complaints
Imperial College Healthcare NHS Trust
Trust Headquarters
The Bays, South Wharf Road

London W2 1NY

Alternative formats

This leaflet can be provided on request in large print, as a sound recording, in Braille, or in alternative languages. Please contact the communications team on **020 3312 5592**.

We have a free and premium wi-fi service at each of our five hospitals. For further information please visit our website: www.imperial.nhs.uk

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