

Oxford Centre for Respiratory Medicine

# Bronchoscopy

Information for patients



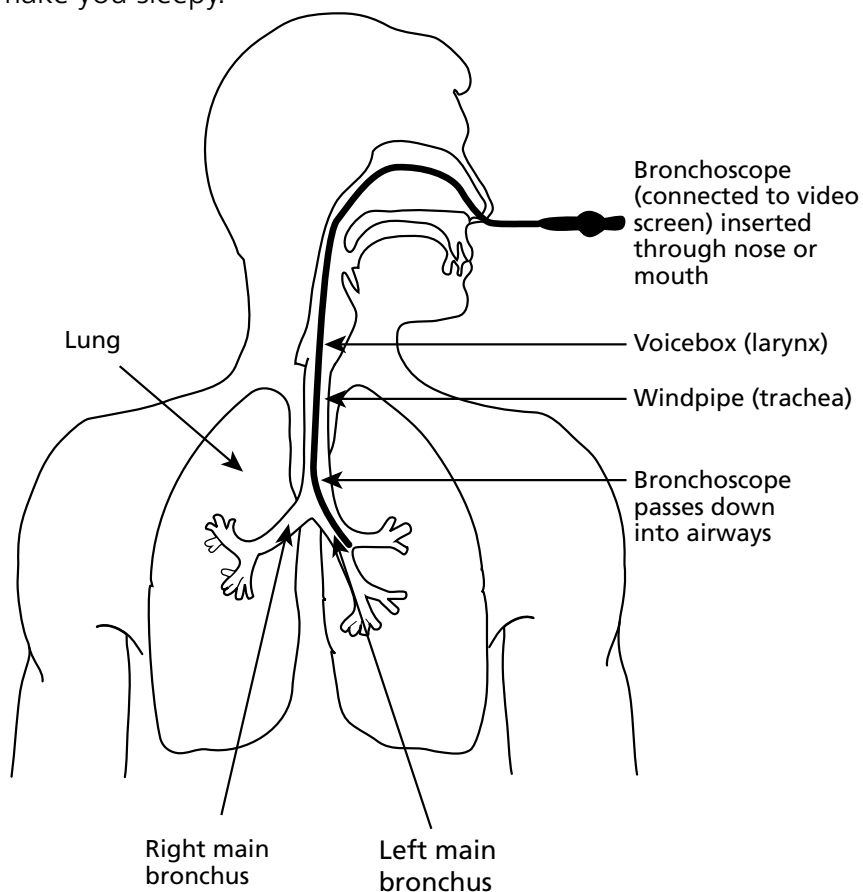
Provisional appointment date and time.....

# Important information about your bronchoscopy

- Do not eat or drink anything for 6 hours before your procedure. You can take any medicines you need to have with a sip of water up until 2 hours before your procedure.
- Tell your doctor about all the medication you take and any medical conditions you have.
- Tell us if you are on any blood thinning or diabetes medications – these are normally stopped before your procedure. It is important that you continue to take any other medications (including those for high blood pressure).
- Arrange for someone to bring you in and take you home from the hospital, before and after the bronchoscopy. You should also not be alone overnight after your bronchoscopy.
- Do not eat or drink after the procedure until the numbness in your mouth/throat has completely worn off.
- For 24 hours after the bronchoscopy you should not drive, return to work, operate machinery, drink alcohol, sign legal documents or be responsible for small children.
- After the bronchoscopy, contact your doctor if you are short of breath, have chest pain or cough up more than a tablespoon of blood in one go.

## What is a bronchoscopy

A bronchoscopy is an examination of the breathing passages (airways) of your lungs. The bronchoscopy is carried out with a thin tube-like instrument with a mini camera at its tip, called a bronchoscope, usually after you have had sedation medicine to make you sleepy.



The bronchoscope allows your doctor to see inside the breathing passages of your lungs. If needed, your doctor can also use the bronchoscope to take samples of mucus or tissue (biopsies) from inside your lungs. It can also be used for removing an inhaled foreign body (such as a peanut or tooth filling).

## Why do I need a bronchoscopy?

Your doctor has recommended a bronchoscopy because they feel the benefits to you outweigh the small risks of the procedure. This decision is made carefully, with your best interests in mind. It is your decision whether you wish to have the procedure.

Your doctor will have explained why you need the bronchoscopy. Some of the common reasons why a bronchoscopy is required include:

- **Infection**

Samples collected from your lungs can help your doctor to find the causes of infection and give you appropriate treatment. Your doctor can also use the bronchoscope to clear some of the mucus from your breathing passages.

- **Bleeding**

If you are coughing up blood, your doctor can look inside your breathing passages to find out where blood may be coming from.

- **Abnormal chest X-ray or CT scan**

There may be a narrowing of one of your breathing passages or an abnormality in your lung, which your doctor wants to investigate to find the cause.

- **Persistent cough**

Samples taken during a bronchoscopy and an examination of the breathing passages can sometimes help to determine the cause for a cough that does not respond to medication.

- **Noisy breathing**

A bronchoscopy can help to see if narrowing of your breathing passages or erratic movement of your vocal cords (voice box) is causing additional breathing sounds.

## Is there an alternative test that I can have instead of the bronchoscopy?

Your doctor can carry out breathing tests, X-rays and CT scans of your lungs. These tests will give additional information about your lungs. However, a bronchoscopy gives very specific information to your doctor by allowing them to look inside your breathing passages and collect samples. There is usually no alternative way of doing this.

## How should I prepare for my bronchoscopy

Please make sure we have your correct telephone number. We will contact you by telephone a few days before your procedure to confirm that you are still able to come. If we are unable to reach you, your appointment will be given to someone else who is waiting for this procedure.

**Please let us know if you may be pregnant, as we may need to cancel or postpone your procedure.**

### **Fasting instructions**

**Do not eat or drink anything for 6 hours before the procedure. You can have sips of water only up to 2 hours before the procedure, if you need to take any medicines. Please make sure that you follow these fasting (starving) instructions. Fasting is very important before a procedure with sedation. If you have anything in your stomach whilst you are under sedation, it might come back up and get into your lungs. Your procedure will be cancelled if these instructions are not followed.**

**It is also better not to smoke before the procedure, because this can reduce how much oxygen your blood can carry.**

On the day of your bronchoscopy, before your procedure, we

will need details of **all** your medications (including any over the counter remedies), allergies and any other medical conditions.

**It is important to let us know in advance if you take blood thinning or diabetes medications, as we will need you to temporarily stop taking these before your procedure.** You should take all your other medications as usual on the morning of the procedure – these should be taken with a sip of water at least two hours before you arrive.

**If you take medication for high blood pressure, it is particularly important that you continue taking your tablets.** We would also ask that you get your blood pressure checked at your GP practice two or three days before the procedure to make sure that it is well controlled.

The following tables explain what to do with your medications. Please contact us if you are not sure what to do.

<b>Diabetes medications</b>	
<b>Medication</b>	<b>Instructions</b>
Diabetes tablets e.g. glibenclamide, gliclazide, glimepiride, glipizide, tolbutamide, metformin, pioglitazone and sitagliptin.	Do not take on the morning of the procedure.
Insulin injections	The dose of your insulin will usually need to be either reduced or stopped on the morning of your procedure. If in doubt, please don't take your insulin but bring it with you, along with all your other medicines.

## Blood thinning medications

Medication	Instructions
Warfarin	Usually stopped 5 full days before the procedure. You will need an 'INR' blood test 1-2 days before your procedure to make sure your 'INR' is below 1.5, otherwise we will need to cancel your procedure.
Aspirin	Do not take on the morning of the procedure.
Clopidogrel (Plavix) Dipyridamole (Persantin) Ticagrelor (Brilique)	Usually stopped 7 full days before the procedure.
Apixaban (Eliquis) Dabigatran (Pradaxa) Rivaroxaban (Xarelto)	Usually stopped 2 full days before the procedure.
Dalteparin (Fragmin) injections	Usually stopped 1 full day before the procedure.

## All other medications

Medication	Instructions
All other medications (including those for high blood pressure)	Please take as normal, at least two hours before the procedure, with a sip of water.

Please bring all of your medications with you when you come for the procedure. You should also bring any glasses you need for reading. Please do not wear jewellery or nail varnish or bring in any valuables.

## What will happen on the day?

Please come to the reception desk in Theatre Direct Admissions, on Level 1 of the John Radcliffe Hospital, at the time you have been given. You should expect to be in the hospital for approximately four hours.

When you arrive, a nurse will greet you and take your blood pressure, heart rate and temperature. They will also ask you questions about your medical history, medications and any allergies you might have.

The nurse or doctor will insert a cannula (tiny plastic tube) into your hand or arm. This will be used to give you the sedation medication into your vein, to make you sleepy during the procedure.

The procedure will be explained to you again and you will have the opportunity to ask any questions you might have. You will be asked to sign a consent form to confirm you are happy for the procedure to go ahead.

When your bronchoscopy is due to start, you will be shown into the bronchoscopy room and will be asked to lie on a couch. Your blood pressure, oxygen levels and heart rate will be monitored using a cuff on your arm, a sensor on your finger and some stickers attached to your chest. You will be given some oxygen into your nose or mouth to keep the oxygen in your blood at a safe level.

Your nose and throat will be numbed with local anaesthetic gel and/or spray; this can make your eyes water briefly and tastes rather bitter.

The numbness will make you feel as if you can't swallow, but you will still be able to. We will then give you the sedation medication into the cannula to make you feel sleepy.



When you are ready, your doctor will insert the bronchoscope into one of your nostrils or through a 'guard' in your mouth (designed to protect the bronchoscope).

The bronchoscope will go down the back of your throat and into your breathing passages. Further local anaesthetic will be used to numb your voice box and breathing passages. This may make you cough, but will not be painful.

The doctor will examine your breathing passages and may take samples. Before the procedure, the doctor will have discussed with you the samples that are likely to be taken and how they are collected. This may include:

- Saline (salty water) being flushed through the bronchoscope and sucked out again, to collect cells for analysis.
- A brush, which can be passed down the bronchoscope to brush cells from the lining of the air tubes in the lungs.
- A pair of forceps (tweezers) on the end of a wire, which can be passed down the bronchoscope. These can be used to take very small pieces of tissue.
- A small needle, which can be passed down the bronchoscope to take a sample from enlarged lymph glands.

## Are there any risks?

Bronchoscopy is a generally safe procedure. Serious complications are rare.

### **Mild complications**

- Approximately 1 in 3 people develop a fever and experience some sweating between 6-12 hours after the bronchoscopy. This goes away by itself and is not usually a sign of an infection. If needed, you can take some paracetamol. If you have an on-going fever for longer than 12 hours, please let your GP know, so that they can test you for an infection.
- A small number of people get a sore throat or hoarse voice after the procedure. If this does not settle within 48 hours you should contact your GP.
- A small amount of bleeding from the lung or airway occurs whenever a biopsy (sample) is taken, so you can expect to have some blood staining of your phlegm after the procedure.
- A small number of people may have a nose bleed, but this is usually minor.
- Occasionally, some people take a longer time to recover after the procedure and may need to be admitted to hospital for observation.

### **Moderate complications**

- Rarely, bronchoscopy can cause a puncture (hole) in the lung wall. This can cause breathlessness and a sharp pain in the chest. It is extremely rare, unless a type of biopsy called a 'transbronchial biopsy' is carried out, in which case it occurs in about 1 in 10 people. If you need a transbronchial biopsy, the risks will be explained before we ask you to sign the consent form. If a puncture does occur, 9 times out of 10 it heals by itself without further treatment. In the rare case when a puncture requires treatment, a small tube is passed between

the ribs under local anaesthetic to remove the air leaking from the lung.

- Occasionally more significant bleeding can occur, but this is uncommon. This may require specific treatment, and very rarely may need to be treated with a blood transfusion.

### **Serious complications**

- Death from bronchoscopy has been recorded as occurring in around 1 in 10,000 procedures carried out. However, the people who have died from bronchoscopy were almost always very unwell beforehand.

### Will it be unpleasant?

The sedative used during the procedure usually means you have no unpleasant memory of what took place. The procedure is likely to cause you to cough, but shouldn't be painful.

## What happens after the bronchoscopy?

The bronchoscopy usually lasts between 20 to 40 minutes. If we are taking biopsies from your lymph nodes (an endobronchial ultrasound bronchoscopy) the procedure usually lasts 60 to 90 minutes.

Afterwards, you will be sleepy. You will be monitored by a nurse in our Recovery Area until you are awake enough to leave. You may have a chest X-ray if the doctors want to make sure you haven't had a puncture in your lung wall. You should not eat or drink until the feeling in the back of your throat has returned; this should be after at least one hour.

When you are ready to be discharged, you will be taken to the Transfer Lounge (Level 2 of the John Radcliffe Hospital) ready to be collected and taken home. Before you leave, the nurse will remove the cannula from your hand/arm.

As the sedation medicine can affect your judgement and behaviour slightly (even if you think you are feeling fine), you should not drive, work, operate machinery, drink alcohol, sign any legal documents or be responsible for small children for 24 hours after the procedure.

You will not be able to drive for 24 hours after the bronchoscopy (this is a legal requirement after sedation) and it is not safe for you to ride home on a bus. It is essential that someone accompanies you home, either driving you home or traveling with you in a taxi. You should not go home on public transport after this procedure. You will need to be taken home by car. This will be more comfortable for you and also quicker for you to return to the hospital if there are any complications on the journey home. You should also not be alone overnight after your bronchoscopy, in case you feel unwell.

## Getting the results

The results of your bronchoscopy will not be available immediately. It takes several days for the specimens to be analysed. Please contact your Chest doctor's secretary one week after the procedure if you have not received an appointment in the Chest Clinic to discuss the results of the bronchoscopy.

## How to contact us

If you have any questions or concerns, please contact:

### **Theatre Direct Admissions**

**Tel: 01865 221 050 or 01865 221 055**

(Monday to Friday, 8.00am to 4.00pm)

Outside these hours please call the Hospital switchboard:

**Tel: 01865 741 166**

Ask for either the On-Call Respiratory doctor or the Chest Ward.

If you are not staying in hospital as an inpatient, when you are ready to be discharged you can be collected from the:

Transfer Lounge (Level 2, John Radcliffe Hospital)

**Tel: 01865 222 848**



If you have a specific requirement, need an interpreter, a document in Easy Read, another language, large print, Braille or audio version, please call **01865 221 473** or email **[PALSJR@ouh.nhs.uk](mailto:PALSJR@ouh.nhs.uk)**

Dr John Wrightson, Consultant in Respiratory Medicine  
October 2015  
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Oxford University Hospitals NHS Foundation Trust  
Oxford OX3 9DU  
[www.ouh.nhs.uk/information](http://www.ouh.nhs.uk/information)

