

## INFORMATION FOR PATIENTS

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# Bronchoscopy

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We hope that this leaflet allows you to understand the bronchoscopy test you are going to have and that it answers your questions. Please do not hesitate to ask if there is anything you don't understand or have further questions.

### **What is a bronchoscopy?**

A bronchoscopy is an examination of the breathing tubes. This is done by putting a fine flexible telescope (thinner than a pencil) into the airways under local anaesthetic and sedation. The tube is inserted either through the nose or the mouth. The bronchoscope has a light and a camera at the end so that the doctor can see inside the airways. Samples may be taken for further examination.

### **Why do I need a bronchoscopy?**

There are many different reasons for the test. The reason your doctor thinks you need the test will be explained to you when you see the doctor on the ward or in clinic. You will be given an information leaflet, the reasons for performing the test will be explained and you will be asked to sign a consent form.

### **Are there any risks?**

Bronchoscopy is generally a safe test. The risks of the procedure are lowest if your general health is good.

A sore throat or nose is fairly common after the procedure. It is also not uncommon to cough up blood for a day or two afterwards. This usually settles without further treatment. If it doesn't, please contact your GP.

Occasionally, patients may develop a chest infection after the procedure. Please see your GP if you start to become more poorly. This might include coughing mucky phlegm and becoming more breathless or feverish.

Occasionally a patient's oxygen levels may drop during the procedure, and they may require extra oxygen for some time afterwards. If you are an outpatient, there is a small chance that you may need to be admitted to the hospital. This is more likely to happen if your oxygen levels are not normal before the procedure.

Sometimes the airways narrow very rapidly during or after the procedure (bronchospasm). This is usually relieved with a nebuliser.

Very rarely this procedure has been known to cause death (fewer than 4 in 10,000 people). This risk is higher if your general health is poor, and lower if you are otherwise healthy.

There are some more specific risks associated with particular additional tests. These are explained in the appropriate sections of this leaflet.

### **What happens on the day of the test?**

You must not eat or drink for the specified time before the test (usually four hours for solids and two hours for fluids). You should still take your medicines with a small amount of water.

Please let your doctor or the endoscopy staff know if you have diabetes or are taking warfarin, clopidogrel or prasugrel. These will need to be discontinued for five days before the procedure.

Ticagrelor will need to be stopped for seven days. Rivaroxaban, apixaban or edoxaban tablets will need to be discontinued for 48 hours. Enoxaparin or fondaparinux injections will need to be discontinued for 24 hours.

You should arrive at the endoscopy unit at the time indicated. A member of staff will then explain things again and ask you some further questions. You will be asked to remove some clothing and put on a hospital gown.

Please note that the time you have been asked to arrive in endoscopy is not the time of the test. You may be asked to wait for a little while after seeing a member of endoscopy staff before the test takes place.

Most patients who have a bronchoscopy are given sedation, although the procedure can be performed without.

**If you do wish to have sedation, you must bring someone with you who can take you home and look after you following the procedure.** This is because you may be drowsy, and your memory will be temporarily impaired. You must not drive or operate machinery for 24 hours after the procedure.

If your oxygen levels are low, it may be safer to do the test without sedation. Your doctor will discuss this with you.

### **The bronchoscopy examination**

In the bronchoscopy examination room, you will sit on an examination trolley. You will usually be sitting fairly upright. The doctor may insert a cannula (plastic tube) into your arm or hand and give you some sedation if you have chosen this.

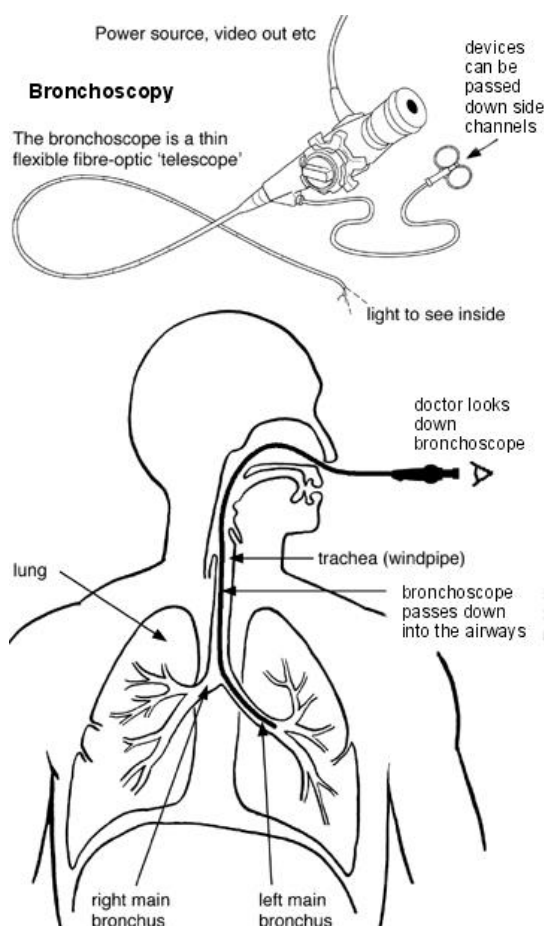
Local anaesthetic will then be sprayed at the back of the throat, which may make you cough. The spray can taste rather bitter. The throat may feel as if it is swelling up as the anaesthetic takes effect. The doctor may inject a small amount of anaesthetic through the skin into the throat below the voice box to help to numb the airways. You will cough at first, but this will soon settle.

You may then be asked to sniff some local anaesthetic gel up your nose to help to complete the numbing of the airways. This part of the procedure may take a while and be a little uncomfortable to start with but is most important to ensure that you tolerate the test.

The doctor will then put the bronchoscope in to the mouth or nose, and down into the throat.

If you haven't had the throat injection, they will spray a little more anaesthetic on to the voice box, which will cause you to cough a little. If the bronchoscope is passed through the mouth, you will be asked to bite on a mouth guard to prevent accidental damage to the bronchoscope.

The bronchoscope is then passed through the voice box into the airways (see the following picture). More local anaesthetic may be sprayed on to the airways at this point to ensure the test can be completed comfortably.



During the test you will have a small device attached to your finger or thumb to monitor your heart rate and oxygen levels.

You will also be given some extra oxygen during the procedure via a small sponge put in to one of your nostrils.

When the airways are numb, the breathing passages will be examined one by one to ensure they are normal. If everything is normal, the procedure lasts about 20 minutes.

If any abnormality is seen, some samples may be taken. This may include biopsies, brush specimens, or washings obtained by putting a little warm salty water in to the airways and then sucking it out again. If these procedures are undertaken, the whole test will take a little longer.

### After the procedure

You may be a little groggy after the test. You will be observed for an hour or so after the procedure and should then be allowed home. You will be allowed to eat and drink two hours after the procedure started. This allows the local anaesthetic and sedation to wear off.

Although you may quickly start to feel as though you have recovered, the side effects of the sedative often last for some hours. If you have had sedation, you should not do the following for 24 hours after the procedure:

- Drive
- Drink alcohol
- Operate machinery
- Sign important documents
- Take sleeping tablets.

If you work, you should be able to return the following day.

### **When will I get the results?**

The doctor will tell you if any abnormality was seen before you go home.

If any samples were taken, the results of these should be available after a week. You will be seen in clinic to discuss these results. You may already have an appointment. If you do not, an appointment will be made for you. We hope to get the results we require from this procedure. Just occasionally we may need to repeat the test or do a different investigation.

### **Extra procedures**

Sometimes it may be necessary to obtain some additional specimens at the time of the test. This will involve an extra procedure which will be explained to you. The test will then take a little longer.

Possible extra tests are explained below:

- **Transbronchial lung biopsies**

Rarely the doctor may need to take some biopsies from the substance of the lung. If biopsies are necessary, there is a small chance (3 in 100) of puncturing the lung (a pneumothorax) during the test. We may need to perform a chest x-ray about an hour after the procedure if we do this test. If you do have a pneumothorax, it does not usually need to be treated, but in rare cases a tube may need to be inserted into the chest to allow the lung to reinflate. You will need to be admitted to hospital if this happens. This sort of problem occurs in fewer than 1 in 100 cases. There is also a small risk of bleeding associated with this procedure.

- **Endobronchial ultrasound guided lymph node sampling**

If the lymph glands in the centre of the chest are enlarged, it is sometimes necessary to use a slightly different bronchoscope to obtain a sample from these glands, which lie outside of the airways.

This bronchoscope has a special built-in ultrasound probe so the doctor can locate lymph glands outside the airway. The doctor can then obtain some extra specimens using a biopsy needle. This bronchoscope is a little wider than the standard device and will need to be put through the mouth. You will need to be lying nearly flat for this procedure. This procedure will take considerably longer than a standard bronchoscopy (up to an hour). There is a small risk of bleeding (fewer than 1 in 50 cases), and a very small chance of puncturing the lung during this test (see transbronchial lung biopsy section).

### **Your procedure**

**Day:**

**Date:**

**Time of arrival:**

**Fasting from:**

**Approximate time of test:**

## Contact details

If you have any questions about the test, please contact your Lung Clinical Nurse Specialist at the hospital on telephone 01623 622515, extension 3896 or 3332.

## Further sources of information

NHS Choices: [www.nhs.uk/conditions](http://www.nhs.uk/conditions)

Our website: [www.sfh-tr.nhs.uk](http://www.sfh-tr.nhs.uk)

## Patient Experience Team (PET)

PET is available to help with any of your compliments, concerns or complaints, and will ensure a prompt and efficient service.

**King's Mill Hospital:** 01623 672222

**Newark Hospital:** 01636 685692

**Email:** [sfh-tr.PET@nhs.net](mailto:sfh-tr.PET@nhs.net)

If you would like this information in an alternative format, for example large print or easy read, or if you need help with communicating with us, for example because you use British Sign Language, please let us know. You can call the Patient Experience Team on 01623 672222 or email [sfh-tr.PET@nhs.net](mailto:sfh-tr.PET@nhs.net).

This document is intended for information purposes only and should not replace advice that your relevant health professional would give you.

External websites may be referred to in specific cases. Any external websites are provided for your information and convenience. We cannot accept responsibility for the information found on them.

If you require a full list of references for this leaflet, please email [sfh-tr.patientinformation@nhs.net](mailto:sfh-tr.patientinformation@nhs.net) or telephone 01623 622515, extension 6927.

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