

Bronchoscopy

What is a bronchoscopy?

A bronchoscopy is an examination of the major air passages of your lungs.

There are two types of bronchoscopes:

1.) A **flexible bronchoscope** is made up of many small glass fibres which transmit light and allow your doctor to see clearly through the instrument. A channel in the bronchoscope allows small specimens to be taken from the bronchial tubes - these include washings, brushings and biopsies (small pieces).

The flexible bronchoscope can be passed either through the nose or mouth into the air passages. It does not require a general anaesthetic and sedation may or may not be necessary.



2.) A **rigid bronchoscope** can be inserted only through the mouth and requires a general anaesthetic. It is often used for the removal of foreign objects from the airways or when a larger biopsy may be needed. This type of bronchoscopy is performed rarely.

Both types of bronchoscope have their specific advantages and the one used depends on your particular problem.

Why do you need a bronchoscopy?

There are many reasons for having a bronchoscopy. Common ones include:

- coughing up blood
- a persistent cough unresponsive to the usual medications
- an abnormal chest x-ray.

During a bronchoscopy your doctor may take samples. They are sent to the laboratory for analysis and are used by your doctor to make a diagnosis.

People, in particular children, may inhale foreign bodies, such as peanuts, parts of teeth or dentures, pins, etc. In order to remove these, a special grasping device can be inserted through a rigid bronchoscope into the bronchial tubes.

How do I prepare for a bronchoscopy?

Your doctor will ask if you have any other illnesses, such as asthma, heart disease or diabetes and also whether you have allergies to any medications. He / she will review all your medications with you. Some can cause you to bleed excessively - these include aspirin and other similar tablets, such as ibuprofen, which should be stopped at least 24 hours before a bronchoscopy. Anticoagulants, such as Warfarin, should be stopped several days before the bronchoscopy. Your blood should be checked to ensure that the clotting tests are normal before the bronchoscopy is done.

Your physician usually orders other blood tests such as a blood count, a chest X-ray and a simple breathing test in the clinic. You will also be asked to sign a consent form for the bronchoscopy.

Unless you are told otherwise, you should follow these instructions to prepare for the bronchoscopy:

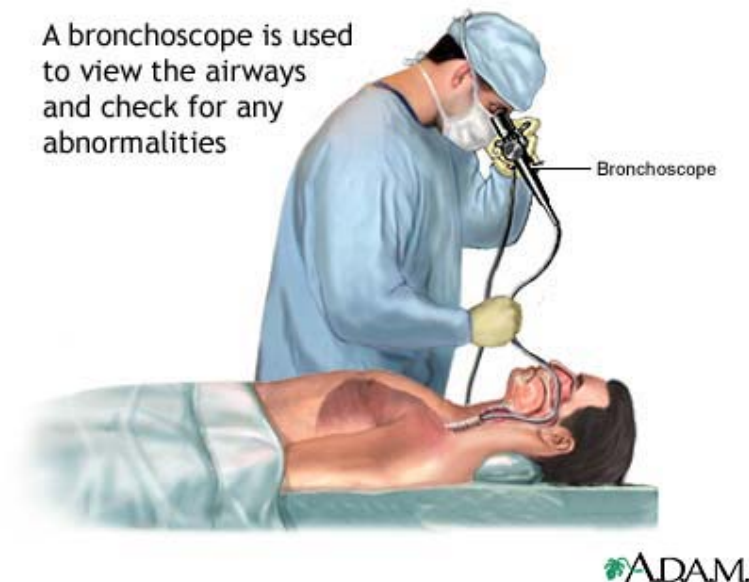
1. Your stomach must be empty to avoid vomiting. If you are having your bronchoscopy in the morning, do not have anything to eat or drink after the midnight before. If you have your

bronchoscopy in the afternoon, do not have anything to eat or drink for at least four hours before. You may be allowed a few small sips of water up to two hours before the test, particularly if you need to take any medication. Your doctor will advise you whether you need to take your medications on the day of the procedure. Usually you will be advised to take your medications as normal but if you are diabetic you may be advised to reduce the doses of diabetic tablets and insulin on the day of the bronchoscopy.

2. As you may be given a sedative injection, it is important that a responsible adult friend or relative accompanies you or that you arrange alternative transport home. You should not drive, use heavy machinery or drink alcohol for the rest of that day.

How is a bronchoscopy performed?

A bronchoscopy using a 'flexible' bronchoscope is usually performed as an outpatient or day case. Before it starts, the inside of your nose and throat will be sprayed with a local anaesthetic to numb it. This tastes bitter and may be a little unpleasant. A small needle will be inserted into a vein on the back of your hand or on your arm, through which you may be given a sedative injection. This will make you drowsy and may stop you remembering the bronchoscopy. You will be made comfortable on a couch in a sitting or lying position. Your nurse or doctor will connect you to a heart and blood pressure monitor and attach a probe to your finger to measure your oxygen level. You may be given extra oxygen through a soft plastic tube placed just inside your nostril during the bronchoscopy.



The bronchoscope goes through your nose or mouth and down the back of your throat. It then goes through your voice box to your windpipe and into your smaller breathing tubes (bronchi). When it goes through your voice box, you may feel as if you cannot catch your breath for a few moments. This feeling is not unusual. Your doctor will stop to let you catch your breath before continuing the bronchoscopy.

During the procedure more local anaesthetic will be given through the bronchoscope into your breathing tubes to help relieve any coughing. You can help by taking slow, shallow breaths through your mouth.

Try not to talk while the bronchoscope is in your bronchial tubes. Talking can make you hoarse or give you a sore throat after the procedure. When the bronchoscope reaches the bronchial tubes the worst part of the test is over. It usually takes about 10-20 minutes to examine all the areas carefully.

During the bronchoscopy, pictures of the inside of your bronchial tubes are transmitted through a camera attachment to a TV monitor. A biopsy, brushings and washings may be taken of any abnormal areas your doctor sees. You may feel pressure or tugging when the biopsy specimens are taken. However, pain is unlikely to occur. A nurse will be there to help you and the doctor. When the examination is finished, the bronchoscope is removed quickly and easily, causing little discomfort.

Bronchoscopy is a safe procedure which carries little risk. Complications are relatively rare, but if they occur, they may include bleeding, an allergic reaction to medicines, a hoarse voice, fever and also a pneumothorax (collapsed lung due to air escaping from inside to outside the lung when a biopsy is taken).

What happens afterwards?

When it is over, you will be looked after by a nurse until you are awake enough to leave. Tell the nurse if you have any chest pain, difficulty breathing, or notice a large amount of blood (more than one tablespoon) in your saliva. It is normal to cough up a small amount of blood for a couple of days afterwards.

The nurse will recheck your blood pressure, pulse, and breathing rate before your discharge. The needle in the vein will be removed and a chest x-ray may be taken.

You should not eat or drink anything for two hours after the bronchoscopy because your throat will still be numb. The sedation lasts longer than you think so you should not drive a car, operate machinery or drink alcohol for twenty-four hours.

When you are ready for discharge, the nurse will advise you on such matters as what to do if you have a sore throat. In many cases the doctor will be able to give you the initial results of the bronchoscopy as soon as you are awake. It may be a good idea to have someone with you when you speak to the doctor. Because of the sedation, many people find they forget what has been said to them. Your doctor will be happy to discuss any questions you may have regarding the bronchoscopy. He/she will tell you when to expect the results back from the laboratory, usually about a week. Contact your doctor if you have any questions or problems.

Last medically reviewed: November 2007