# Bronchoscopy



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To increase readability, all brochures will be written in third person singular, 'he', regardless of the gender of the subject.

## Lungs

The lungs are located in the chest cavity and enclosed in the ribcage. Two lung membranes, pleurae, are located between the lungs and the chest wall. The diaphragm is located below the lungs. It plays an important role in your breathing.

The lungs' function is to provide the body with oxygen. Simultaneously, they also make sure that carbon dioxide is removed from the blood.

The air that we breathe in, goes through mouth or nose into the trachea which then splits into two branches called the bronchi. At the end of the smallest bronchi, we find the alveoli.

Alveoli transfer the inhaled oxygen to the blood. The blood will then transport oxygen to all parts of the body.



The lungs are soft and spongy, which makes them very vulnerable. The mucous membranes in mouth, nose and throat serve to protect the lungs. Harmful substances or bacteria entering the body with your breath will mostly get stuck on this mucous membrane.

The insides of the bronchi as well as of the lungs are also covered in mucous membrane. The so-called cilia in the mucous membrane of the lungs will transport any particles that made it past the throat back up. This is where you cough up the mucus or swallow it. This process is how the lungs keep themselves clean and prevent irritation.

## Bronchoscopy

During a bronchoscopy, the physician will examine the airways using a bronchoscope passed through nose or mouth. A bronchoscope is a device used to look inside the respiratory tract. It consists of a flexible tube with a strong light source and special lenses that can be guided through the airway. This way, your treating physician can see the structure of the mucous membrane, any infections, or abnormalities in the respiratory tract.

A bronchoscopy is a relatively simple procedure to collect diagnostic information about possible causes for your symptoms. It is performed to obtain a detailed view of the lungs and respiratory tract, to diagnose lung diseases, detect mucosal abnormalities and to remove any mucous located deeper into the lungs.

Bronchoscopy also allows the physician to take samples of mucous membranes or tissue for further microscope examination in the hospital laboratory. If the physician notices a lesion in the lung or respiratory tract, he will biopsy it for further examination.

A bronchoscopy can also be useful to detect and remove a foreign object or to locate a bleed in the lung and stop it, if possible.

A bronchoscopy seems an uncomfortable procedure at first. However, with modern technology and sedation, the procedure can be performed quickly without too much discomfort to the patient.



## Preparing at home

Please take the following into account before you are admitted:

NPO/nil by mouth Your stomach should be empty prior to the procedure. Therefore, you should not eat, drink, or smoke for a period of four hours before the procedure.

Getting home Because of the sedation you are not allowed to drive on the day of the procedure. If you are discharged the same day, it is best to arrange an (adult) to take you home.

Jewellery It is best not to wear any jewellery during the procedure. Please leave it at home.

Contra-indications Your physician should be notified of any (possible) pregnancy, if you are diabetic.

Medication Inform your physician which medications you are using, preferably with a medication list and the original packaging.

If you are taking blood thinners, please notify your physician as they increase the risk of bleeding. The physician can decide whether you should temporarily stop taking them.

Allergies Inform us of any possible allergies so we can take precautions: latex, certain medications, sedatives or other products, food, etc.

#### What to bring?

Your ID

Insurance forms and documents

Your home medication (preferably in original packaging with a list)

We do everything we can to prevent theft, but a hospital is a public place.

Please do not bring any valuables, such as money or jewellery to the hospital.

#### **Consent form**

Before the start of the procedure, we will ask you to fill out the consent form, sign it and hand it to the care team. You can do this at home. This form will be put into your medical record.

## Process

Depending on your situation, your physician may decide to perform the procedure under general anaesthesia, sedation, or local anaesthesia. The pulmonologist will discuss what sedation or anaesthesia will be used for you and what this will involve.

### Admission

On the day of the procedure, you will sign at the Admissions desk, twenty minutes before your appointment.

Bronchoscopy can be performed as an outpatient procedure, but it is also possible that you will have to stay one night for observation. The pulmonologist will inform you about this as well.

#### Preparation

The procedure is usually performed under light general anaesthesia. An IV will be inserted into your arm in the day hospital or the ward to which you have been admitted. This IV will be used to administer the sedating drugs.

As soon as the preparation is done and depending on the schedule you will be brought to the Endoscopy department in a hospital bed.

#### Procedure

The procedure does not hurt but may be uncomfortable. The procedure takes five to twenty minutes.

Loose dental prostheses must be removed so they are not damaged when the bronchoscope is inserted through your mouth.

You will sit or lie on an examination bed during the procedure. Your heart rate and oxygen saturation levels will be continuously measured and monitored, and you will receive additional oxygen. Your IV will be used to administer the sedating medication. When you are properly sedated or anaesthetised, the bronchoscope will be inserted through your nose or mouth into the respiratory tract. Depending on the reason for the procedure, and what the physician finds in the respiratory tract, he may take samples of mucus or tissue for further microscopic examination.

If needed, smaller airways and alveoli may be flushed.

### Aftercare

After the procedure, you will be taken back to the day hospital or the ward where you can have some rest.

Your throat was numbed, which means that there is a risk of choking. Therefore, you cannot eat or drink until the care team has given their permission. This is usually after about two hours, when the anaesthetic has worn off.

You will remain in observation for a while, until you feel well enough to go home.

### Discharge

The treating physician will determine when you are medically ready to be discharged. If the physician feels that additional care is needed, an overnight stay in the hospital may be necessary.

If you were admitted to the day hospital as an outpatient, you may

leave the hospital shortly after the physician declares you ready to be discharged. Beware: you are not allowed to operate any motorized vehicles. The sedation may impact your ability to react. Therefore, you should arrange for an adult to accompany you home.

## Results

The physician will make an appointment with you to discuss the results. If no appointment was scheduled, it is best to contact the Outpatient Clinic to schedule one yourself.

## Possible complications

Bronchoscopy is generally safe, but as with any other procedure or treatment complications cannot always be fully prevented.

It is possible that you may cough up some bloody mucus, or that you have a sore throat. This is normal, your trachea may have been injured slightly by the bronchoscope. These complications will usually disappear spontaneously within 24hours. If you are worried, please do not hesitate to notify the physician-specialist or the care team.

It is not abnormal for you to have a body temperature of 38.5°C or higher for a few hours after the procedure. Your body temperature should stabilize by the following morning.



If your lungs were flushed, you may experience shortness of breath or a cough. These will disappear spontaneously.

If you have any questions or concerns, please contact the ward Internal Medicine 1.

Rare medical complications include damage to the vocal cords, pulmonary bleeding, pneumothorax, arrhythmias, and low saturation.

Please contact your physician if, after the procedure, you experience any of the following:

Fever (over 38.5° C) that does not abate

Shortness of breath and coughing that do not disappear spontaneously.

Bloody sputum that continues or becomes more severe.

Chest pain

#### Finally

If you have any questions or concerns after reading this leaflet, please do not hesitate to ask your treating physician or the care team. All of us are happy to help you, within our own specialty.

We do everything we can to make the procedure go as smoothly as possible, and we thank you in advance for your cooperation.

## Contactgegevens

| Inwendige Geneeskunde 1 | T 02 257 57 20 |
|-------------------------|----------------|
| Onthaal                 | T 02 254 64 00 |
| dienst Inschrijvingen   | T 02 257 56 20 |
| dienst Consultaties     | T 02 257 53 40 |



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