Airway Stents

YOUR GUIDE TO HEALTH
Introduction

Your doctor has scheduled a bronchoscopy with a possible stent insertion. This brochure will help prepare you for the procedure and the tracheal or bronchial stent placement by outlining the procedure and explaining the possible risks. It is not meant to replace an informed discussion between you and your physician but can act as a starting point for your questions. Normally this as an outpatient or same day procedure in the hospital’s endoscopy unit. However, your doctor may decide to admit you to the hospital before or after the procedure.

What is a Tracheobronchial Stent?

If your airway is partly blocked by an obstruction such as cancer it can make it hard to breathe. Your doctor might suggest that you have a stent placed into the airway so that you can breathe more easily. A stent is a tubular, metal device that will be placed inside your lung to keep the airway open. Your doctor puts the stent in place using a procedure called a bronchoscopy. The stent can be placed in either your trachea or your bronchi, depending on where the narrow area is. Your trachea is the tube that carries air from your nose and mouth into your lungs. Your bronchi are tubes that branch off at the bottom of your trachea and lead to different areas of your lungs.

What is a Bronchoscopy?

A bronchoscopy is a procedure that allows doctors to look at your lungs and air passages. During a bronchoscopy, a narrow, flexible tube with a small fiber-optic camera called a bronchoscope goes down your windpipe (trachea) and into your lungs. This allows a doctor to view the airways inside your lungs. It gives a clear view of your airways and allows your doctor to collect lung secretions or take biopsy samples.
What are the potential risks and side effects of a bronchoscopy?

Bronchoscopy is an extremely safe procedure. The chance of anything going seriously wrong is very small indeed. Most problems that do occur are minor and can be dealt with easily. Potential problems from having a bronchoscopy are:

**Coughing** This almost always settles once the local anesthetic has worked.

**Bleeding** May occur where the samples were taken.

**Breathlessness** Occasionally patients may experience some temporary breathlessness due to irritation of the voice box.

**Drug Sensitivity** A few patients are particularly sensitive to the drugs used for sedation. The risk is very small and can usually be reversed with medication.

**Spasms** Spasm of the airways (causing wheezing and breathlessness) may occur and can cause you to feel short of breath immediately after the procedure.

**Sore throat or nasal irritation** This depends on how the bronchoscope was inserted.

Preparing for your bronchoscopy

For this procedure it is important that your stomach is empty. The night before your bronchoscopy, do not eat anything after midnight. You may have a drink of water, or black tea or black coffee up to four hours before your visit to the hospital but you must not eat any breakfast or drinks containing milk.

Your physician will talk with you about which medications you should take the morning of your procedure. Be sure your doctor knows all of the medications you are taking. If you take an anticoagulant (medication to thin your blood), to treat blood clots or to prevent a heart attack or stroke, ask your doctor if you should stop taking it. Do not stop taking it without consulting with your doctor.

Some examples of anticoagulants are:

- Aspirin
- Warfarin (Coumadin®)
- Dalteparin (Fragmin®)
- Heparin
- Tinzaparin (Innohep®)
- Enoxaparin (Lovenox®)
- Clopidog rel (Plavix®)
- Cilostazol (Pletal®)
- Apixaban (Eliquis®)
- Rivaroxaban (Xarelto®)
- Dabigatran (Pradaxa®)

A bronchoscopy takes about thirty minutes. With insertion of a stent, this can sometimes extend to sixty minutes. The time varies depending on the findings and if treatment is needed. Including admission and recovery time, most people will be in the hospital between two and four hours.

Putting in the stent

When the bronchoscope is in the right place, the doctor pushes the stent down the bronchoscope. It is a compressed metal tube. As the stent is deployed it expands and pushes the walls of the airway open.
After your bronchoscopy

You will not be able to eat or drink anything immediately after the procedure as your throat is too numb to swallow safely. This usually passes after about an hour once the anesthetic wears off. You can usually go home the same day, however, someone should drive you to and from the hospital. Do not drive until the day after the procedure because you might still be drowsy from the sedative. You might have a sore throat for a couple of days and you will want to take it easy for a day or so after the procedure.

Medication use after your procedure

Keep using your nebulizer. Follow your doctor’s instructions. If you had to stop taking any medications before your procedure, follow your doctor’s instructions before taking them again.

Possible risks and complications with airway stents

Having an airway stent is a very safe procedure but your nurse will tell you who to contact if you have any problems afterwards.

The possible risks include:

A chest infection Contact your doctor right away if your phlegm (sputum) changes color, you start feeling more breathless or you feel as though you have a temperature.

Needing extra oxygen You might need oxygen through a mask for some time after the bronchoscopy. If you normally have oxygen at home you might need to have more than usual for a while.

A collapsed lung (pneumothorax) Air or gas can collect in the space around the lung and make it collapse but this is rare. Contact your doctor if you get breathless or have chest pain. You may need to have a tube put into the lung to remove the air.

Stent moving and blocking the airway This is very rare – contact your doctor or nurse straight away if you suddenly feel short of breath.

Granulation or scar tissue The implanted stent may develop granulation or scar tissue that could block the stent or make it difficult to remove.

Mucous build-up After your procedure mucous can accumulate in the implanted stent. Your doctor may recommend certain drugs or a nebulizer to help with this.