



# DR FE KRITZINGER INC.

Paediatrician & Paediatric Pulmonologist

Co. No: 2011/010120/21, Pr. No. 0366382, MP0518107

## Flexible Bronchoscopy

Please read the following information to learn about the procedure and how you can help.

### What Is Flexible Bronchoscopy Testing?

In a bronchoscopy (bron-KOS-ka-pee), a long flexible tube with a tiny camera, called a bronchoscope (BRONK-a-scope), is passed through the nose or mouth into the lungs. The doctor can see what the vocal cords, trachea (TRAKE-ee-uh) and the airways in the lungs look like.

The bronchoscope will be shown on a video screen and videotaped for the doctor to look at later. The bronchoscopy also can take still pictures inside the airways that you and your child can look at and discuss later with the doctor.

### Fast Facts About Sedation / Anaesthesia

Sedation means that your child will be given medication to make him or her drowsy, relaxed and comfortable during the procedure. Although not completely asleep, your child will not feel any pain during the test or remember it afterwards. In many cases, a deeper type of anesthesia may be needed for parts of the test. This type of anesthesia is given by using a special "space mask" to make your child sleep and keep him or her comfortable throughout the test. An anesthesia doctor experienced with children, will give your child the sedation and/or anesthesia medications.

### Home Preparation

There are important rules for eating and drinking that must be followed in the hours before the test. One business day before your child's test, you will receive a phone call from the practice between the hours of 3am and 5pm. Please have paper and pen ready to write down these important instructions.

You will be given specific eating and drinking instructions for your child based on his or her age. Following are the usual instructions given for eating and drinking. No matter what age your child is, you should follow the specific instructions given to you on the phone by the doctor.

#### For children older than 12 months:

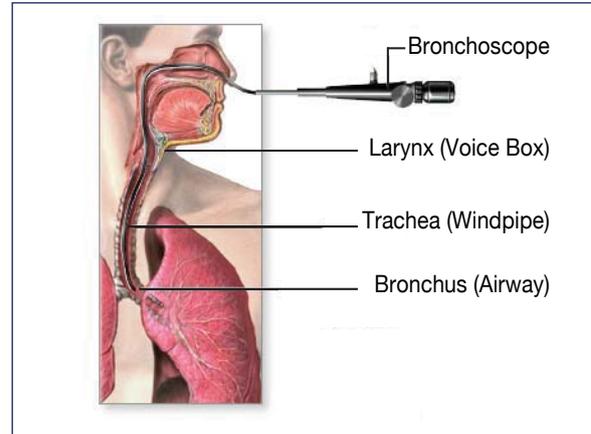
No feeding after midnight the night before the test.

#### For infants under 12 months:

Up to 6 hours before the scheduled procedure time, formula-fed babies may be given formula. Up to 4 hours before the scheduled procedure time, breastfed babies may nurse.

### Medications

If your child takes chronic medication by mouth, he or she may take it with a small sip of water. If your child uses an inhaler, your child may use it before the procedure as he or



she usually does. Please make sure to mention which inhaler medication and what time it was last used when asked about medications by the doctors before the bronchoscopy. You may bring along a "comfort" item – such as a favorite stuffed animal or blanket – for your child to hold during the test.

### Before the Flexible Bronchoscopy

The flexible bronchoscopy is usually done in theatre. If your child is in a Intensive Care Unit (ICU) the bronchoscopy can be done right in the ICU bed without moving him or her. After you have registered your child at the reception, you will be directed to the paediatric ward.

### The Flexile Bronchoscopy Test

You and your child will be moved to a holding room near the theatre. There might be other patients and parents in the holding area at the same time. You and your child will meet with the actual anesthesia team who will be giving the anesthesia.

If your child is very scared or upset, the anesthesia team might give a special medication to help him or her relax while still in the holding room. This medication may be given by mouth or sprayed into the nose to make him or her sleepy.

This medication takes effect in about 10 to 20 minutes. When the theatre is ready, your child will be taken to the theatre and you can accompany your child.

Once in the theatre, your child will be given a small amount of anesthesia gas through the "space mask" to make him or her sleep. Once he or she is asleep, an intravenous (in-tra-VEE-nus) or IV line will be placed into a vein in your child's arm, unless your child already has an IV line in place. No needles will be used while your child is still awake.

In cases when the bronchoscopy is being done through the mouth, the doctor will place a laryngeal mask with a tube going through your child's mouth and ending just above the vocal cords. The bronchoscope will go through this tube.

Director: Fiona Elize Kritzinger (MBChB *cum laude* (US), DCH (SA), MMed *cum laude* (US), FCPaed (SA), Cert Pulm (SA) Paed)

Tel: 021 422 1354 / Fax: 021 422 3653 / A/H number: 021 712 6699 / Email: [drkritzinger@thrivingkids.co.za](mailto:drkritzinger@thrivingkids.co.za)

Suite 201, The Chambers, Christiaan Barnard Memorial Hospital, 87 Loop Street, Cape Town, P.O. Box 16280, Vlaeberg, 8018



# DR FE KRITZINGER INC.

Paediatrician & Paediatric Pulmonologist

Co. No: 2011/010120/21, Pr. No. 0366382, MP0518107

In some cases, a child might need a tube (endotracheal tube) placed through the mouth and ending in the trachea. The bronchoscope will go through this tube.

The channel in the bronchoscope also allows the doctor to spray a numbing medication on the airway or vocal cords to keep your child comfortable during the test.

Your child's heart rate, blood pressure, temperature and blood oxygen level will be checked continuously throughout the test.

The doctor also might perform a procedure called bronchoalveolar lavage or BAL. Using sterile saline, which is similar to tears, the doctor will wash a small area of the lung, then suction out the liquid and send it to the lab to be tested. Sterile saline is completely safe to use inside the body.

In some cases, other specialists, such as ENT or surgery, might do tests while your child is still under anesthesia. Doing these tests one after the other during the same procedure is safer for your child so your child only has to go under anesthesia once. If other doctors will be doing tests while your child is under anesthesia, it will be discussed beforehand and you will have met with the other doctors doing tests before your child goes to the theatre.

The flexible bronchoscopy itself only takes about 15 minutes; however, prep time before and after the bronchoscopy may take up to 90 minutes, depending on what tests are being done.

## Waking up

After the bronchoscopy, your child will be moved to the recovery room. You will be called so that you can be there as he or she wakes up. Your child might be wearing an oxygen mask to help him or her breathe during recovery from the anesthesia.

Children coming out of anesthesia react in different ways. Your child may cry, be fussy or confused, feel sick to his or her stomach, or vomit. These reactions are normal and will go away as the anesthesia wears off. The length of time it will take the medication to wear off will vary, as some children take longer than others to become alert, but generally they feel better within 30 minutes.

Your child might be sleepy when he or she wakes up, and his or her throat might still feel numb.

After your child's throat stops feeling numb and he or she is wake enough, they may drink. The time in recovery is usually 20 minutes, depending on how quickly your child recovers from the anesthesia and the bronchoscopy. Thereafter you may go back to the ward. Your child may resume normal activities, eating and drinking at the rate he or she is comfortable within 2 hours after the bronchoscopy.

## A Parent's/Guardian's Role During the Test

The most important role of a parent or guardian during the test is to help your child stay calm and relaxed. The best way to help your child to stay calm is for you to stay calm. Feel free to ask any questions.

## After the Flexible Bronchoscopy

After the flexible bronchoscopy, your child might feel tired for several hours and might have a sore throat, a cough and/or some blood in his or her saliva (spit) when he or she coughs. These should go away by the next day. If they don't, you should contact the doctor's office.

About half of the children who have had a bronchoscopy with bronchoalveolar lavage (BAL) will develop a low-grade fever 4 to 8 hours afterwards. This fever is a normal response of the body and can be treated with Calpol or Panado. If your child develops a fever that is higher than 39.1 C, or does not respond to medication, you should call the hospital and ask for the pediatric pulmonologist on call.

## Complications

All medical tests carry some risks. Although the risks from a flexible bronchoscopy are very low, you should know about the possible complications.

They are:

- **Bleeding** from the tissue of the nose or airways from scraping by the bronchoscope. This bleeding usually is very minimal and almost always stops by itself.
- **Infection.** As the bronchoscope passes through the nose, it can carry bacteria above the vocal cords to the lungs. This risk is extremely small and is treated with antibiotics.

**The following risk is only applicable if biopsies are taken.**

- **Perforation** (hole) in the airway leading to a collapsed lung. The risk of this complication is less than 1 in 1000. In that event, the air around the lung would have to be removed with a chest tube. This would mean your child would have to stay longer at the hospital until the hole in the lung is healed, which usually takes 1 to 3 days. Please ask the doctor if this risk applies to your child.

## Cost

A flexible bronchoscopy is performed in hospital. Costs include hospitalization, theatre cost, anaesthesia costs and procedure costs. If you are a member of a medical aid we will help you to obtain authorization for these costs before the procedure. However each medical aid determines their own scheme rate. It is important that you confirm with your medical aid what your possible expenses may be.