

Endobronchial Ultrasound ~ EBUS ~

Here are some words you need to know to understand this procedure:

Ultrasound:	A device at the end of a long thin tube that produces sound waves. The sound waves create pictures of organs and structures inside the body which the doctor can see on a TV screen.
Mediastinum:	This refers to a group of structures in the chest (thorax) connected by tissue.
Lymph nodes:	Lymph nodes are small ball-shaped organs found all over the body. They are part of the immune system. Often, lymph nodes become enlarged or inflamed when there is a problem. EBUS looks at lymph nodes in the breathing tube (trachea), food tube (esophagus) and the area between the lungs and the diaphragm muscle.
Biopsy:	This is a procedure done by the doctor where a small sample of tissue is taken and sent to the laboratory for testing. You can have one or more biopsies taken during this procedure.

What is endobronchial ultrasound?

Endobronchial ultrasound is a way of looking inside the airways and around the lungs to identify lymph nodes in the mediastinum and take biopsies when needed. It is also called EBUS.

There are 2 steps to this procedure. The first step is performing a bronchoscopy and the second step is using the ultrasound. These are described on page 3.

EBUS is done for many reasons. Your doctor will tell you why you are having this procedure. You will have a light sedation where you get medication to make you sleep through an intravenous tube in your arm. You will also have freezing spray or gel in your throat.

It takes about 20 minutes to do but plan to be at the hospital 2½ to 3 hours.

Are there any complications to this procedure?

Before you sign a consent form, your doctor should explain the problems that can occur. Complications are rare but include:

- The scope or biopsy instrument can tear or perforate the lining of the airway. This may or may not need treatment.
- There can be bleeding after a biopsy. Bleeding can be stopped during the procedure. Rarely further treatment is needed.

- If you have an intravenous tube in your arm, you can get a lump or bruise on the skin. This can take a few days to a few months to go away.
- You may have a reaction to the medication used to relax you. The doctor and nurses can manage any complication that may happen. Tell the staff if you have ever had an allergic reaction to any medications or dyes.

Getting Ready at Home

Medications and allergies:

Your doctor may want you to stop taking certain medications 4 to 5 days before the test. Contact the doctor doing the procedure at least 1 week before to ask about your medications.

Prepare a list of the current medications you take and any allergies you have. Include herbal products and over the counter medications on your list. You can ask your pharmacist to print a copy of your medication record for you. Bring this list or your medications to your procedure.

Prepare and bring all health insurance information to the hospital such as:

- Your Ontario Health Insurance card and
- Any other insurance papers such as Blue Cross, Metropolitan etc.

Plan ahead:

- You must arrange for someone to take you home after the procedure.
- You cannot leave the hospital alone or drive for 24 hours.
- If you plan to take a taxi home, you still need to have someone with you.
- Make your plans ahead of time.

Before Coming to the Hospital

Eating and drinking:

- If your test is in the morning before 12:00 noon, do not have anything to eat or drink after midnight.
- If your test is booked after 12:00 noon, you may have clear fluids at 6:00 a.m. Clear fluids are black tea and coffee, water and apple juice.

Getting to the hospital:

- Your driver can drop you off at the Main Entrance at the front of the hospital off Queen's Boulevard. Your driver can then park in the Visitors Parking off Spadina Rd. W.
- If English is not your first language, please bring someone who can interpret for you.

At the Hospital

 A volunteer in the Main Lobby will direct you to the 4th Floor where the Endoscopy unit is.

Registration:

When you arrive at the Endoscopy Unit on the 4th floor you will be directed to either the registration desk or a waiting room to wait for registration.

Plan to be at the hospital about 2 $\frac{1}{2}$ to 3 hours. There are many doctors and patients in this unit so you may see people go in "out of order".

In the Endoscopy room:

The nurse will ask you some questions and do a nursing history. The nurse will review your allergies and medications with you and help you get ready. You will wear a hospital gown. You will remove your glasses and dentures just before the procedure.

You will have a thin tube put into your arm called an intravenous. This is used to give you medication. Your blood pressure, heart beat and oxygen levels will be checked.

What happens during the procedure?

Before this test, your doctor may give you a medication to help you relax. The doctor will then freeze the back of your throat with a local anaesthetic to make you more comfortable. The scope is placed in your nose or mouth and guided down the airway. The doctor will tell you what he or she is doing during the test. Oxygen may be given during this procedure. You will have 2 small prongs in your nose to give you oxygen. There is a nurse in the room helping you and the doctor. The procedure feels uncomfortable but is not painful.

The doctor looks inside the airways of the lungs first. Pictures are sent to a television monitor as the scope goes down.

The doctor then inserts the EBUS scope. The doctor presses a button on the scope and the ultrasound begins. Sound waves bounce off the structures in the area and produce pictures on the monitor for the doctor to see. Biopsies are then done and sent to the lab for testing.

This is where the scope goes.

It is put through your mouth or nose.

After the Procedure

Resting:

You will need to rest for up to 1 hour in the unit before you go home.

Drinking and eating:

Your doctor or nurse will tell you when it is safe to drink and eat after the test. The anaesthetic in the back of your throat needs time to wear off before you can swallow safely. It takes about 1 hour to wear off.

Your throat:

Your throat may be sore or your voice hoarse when the anaesthetic wears off. This will soon go away. You can help your throat feel better by:

- Sucking lozenges
- Gargling with warm salt water
- Drinking warm liquids

After sedation:

- You must have someone give you a ride home.
- Do not drive, operate machinery, drink wine, beer or alcohol or make major decisions for at least 24 hours after sedation.
- You can return to work the next day.
- You can return to all of your normal activities the next day.

What to watch for at home:

After the procedure, you may have some pink coloured secretions, cough up bright red blood or have a fever. If any of these get worse call your doctor.

Call your doctor if you:

- Have prolonged face, neck, throat or chest discomfort
- Have trouble breathing or swallowing
- Cough up more than a teaspoonful of bright red blood
- Have any concerns or questions

If you have any questions, call the doctor's office that ordered this test.