

Endobronchial Ultrasound or EBUS TBNA



WHAT IS EBUS AND WHAT IS TRANS BRONCHIAL NEEDLE ASPIRATION?

EBUS (endobronchial ultrasound) bronchoscopy is a procedure used to diagnose different types of lung disorders, including inflammation, infections or cancer. Performed by a pulmonologist, EBUS bronchoscopy uses a flexible tube that goes through your mouth and into your windpipe and lungs.

EBUS is a modified endoscopy / bronchoscopy in which additional information is obtained following a routine bronchoscopy. The EBUS scope has a video camera with an ultrasound probe attached to create a local images of your lungs and nearby lymph nodes in order to accurately locate and evaluate areas seen on x-rays or scans that need a closer look. A needle is passed inside the scope and visually guided with ultrasound assistance for accurate sample obtained from the lung or lymph nodes.

Lymph nodes are round tissues which are immunological centers where infection / cancers usually localize. The information obtained by testing the samples from the lymph nodes help establish the diagnosis and the best treatment protocol.

Before the Bronchoscopy / EBUS, Blood workup, Chest XRay and CT scan are needed.



Blood workup includes:

CBC: Complete Blood Counts.

Platelet counts.

PTINR: Coagulation profile.

ECG and evaluation of Cardiac co morbidities.

Blood Sugars and control of diabetes.

Oxygen status and avoiding risk of hypoxemia.

Routine kidney and liver function tests to evaluate clearance of anesthetic agents.

What do they do inside the endoscopy room?

After a routine bronchoscopy evaluation, an EBUS scope is passed through the mouth as shown above.

- The physician can perform needle aspiration on lymph nodes using a bronchoscope inserted through the mouth
- A special endoscope fitted with an ultrasound processor and a fine-gauge aspiration needle is guided through the patient's trachea
- No incisions are necessary.
- It is done under Local / Short General anesthesia and so there little or no pain involved. There may be some sore areas around the mouth or tongue and throat after the procedure due to keeping the mouth open for the period of the procedure.

How is it helpful to make a better diagnosis?

- It provides real-time imaging of the surface of the airways, blood vessels, lungs, and lymph nodes
- The improved images allow the physician to easily view difficult-to-reach areas and to access more, and smaller, lymph nodes for biopsy with the aspiration needle than through conventional mediastinoscopy.
- EBUS is performed under moderate sedation or general anesthesia
- Patients recover quickly and can usually go home the same day if the clinical status so allows.

The samples taken from the needle aspiration during the EBUS Bronchoscopy are sent for evaluation to the Lab. Results are expected in 3-5 days. These vary for individual tests ordered. The final discussion for diagnosis and treatment outcomes will happen after these results have been assessed.

Are there any risks?

Almost all persons recover completely from the procedure. They may be sleepy or tired for several hours after the procedure. Their throat can feel slight sore for a day or two afterwards. It is extremely safe procedure due to the local anesthetic involved.

The most usual things are local blood oozing which may involve the patient spitting blood in very small quantity after the procedure.

There is also drop in oxygen levels due to which cardiac problems may occur. These problems have been thankfully rare and are usually well monitored during the procedure. There have been very rare deaths involved for cardiac and blood conditions due to unexpected events inside the endoscopy room. These are best managed by keeping the patient in hospital indoor setting. Your doctor and the endoscopy staff will guide you regarding the same.

Please additionally read the bronchoscopy procedure as this is an advanced procedure done along with a regular bronchoscopy done prior.