

# Endobronchial Ultrasound(EBUS)

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## WHAT IS ENDOBRONCHIAL ULTRASOUND?

EBUS (endobronchial ultrasound) bronchoscopy is a procedure used to diagnose different types of lung disorders, including inflammation, infections or cancer.

### DISCOVERY

Kazuhiro Yasufuku discovered Endobronchial ultrasound in 2004. It reported a sensitivity of 96% and specificity of 100% for distinguishing between malignant and nonmalignant lesions. UC San Diego Health was one of the first centers on the West Coast to offer EBUS and remains a regional leader in volume and overall experience.

### OBJECTIVE

An EBUS is usually suggested if there are abnormal appearing lymph nodes identified on radiological scans. Sampling these lymph nodes may help your doctor determine the most appropriate route of treatment .An EBUS will enable the doctor to take tissue samples to confirm a diagnosis and determine an appropriate plan of treatment as necessary. The preliminary results from tissue samples are usually available in 7 days.

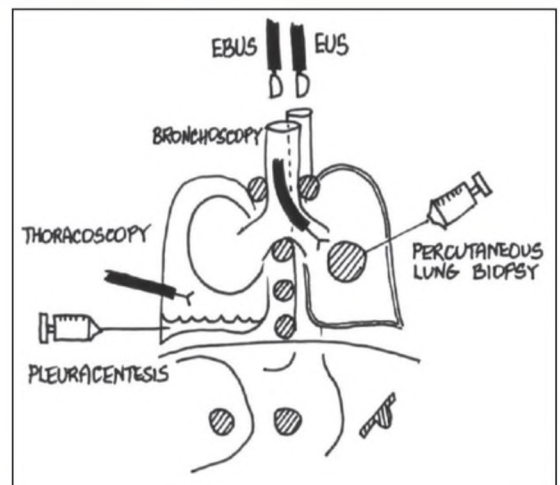
### WHY IS EBUS USED?

EBUS allows physicians to perform a technique known as transbronchial needle aspiration (TBNA) to obtain tissue or fluid samples from the lungs and surrounding lymph nodes without conventional surgery. The samples can be used for diagnosing and staging lung cancer, detecting infections, and identifying inflammatory diseases that affect the lungs, such as sarcoidosis or cancers like lymphoma.

## HOW EBUS WORKS?

An endobronchial ultrasound is much less invasive.

- 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



## BENEFITS OF EBUS

- 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
- It provides real-time imaging of the surface of the airways, blood vessels, lungs, and lymph nodes

### REFERENCE

<https://health.ucsd.edu/specialties/pulmonary/procedures/pages/endobronchial.aspx>  
<https://thoracickey.com/history-of-bronchoscopy-the-evolution-of-interventional-pulmonology/>  
[https://www.lung.org/lung-health-diseases/lung-procedures-and-tests/endobronchial-ultrasound-ebus#:~:text=EBUS%20\(endobronchial%20ultrasound\)%20bronchoscopy%20is,into%20your%20windpipe%20and%20lungs.](https://www.lung.org/lung-health-diseases/lung-procedures-and-tests/endobronchial-ultrasound-ebus#:~:text=EBUS%20(endobronchial%20ultrasound)%20bronchoscopy%20is,into%20your%20windpipe%20and%20lungs.)