



Pulmonary, Critical Care
& Sleep Medicine

ENDOBRONCIAL ULTRASOUND (EBUS)

What is an EBUS?

Endobronchial ultrasound (EBUS) is a relatively new procedure used in the diagnosis of lung cancer, lung infections, and other diseases that cause enlarged lymph nodes or masses in the chest.

EBUS is a minimally invasive procedure, so patients can have it on an outpatient basis. It is proven to be highly effective. This new technology allows physicians to sample central lung masses and lymph nodes with the help of ultrasound guidance. Our physicians are able to get good biopsies without creating too much discomfort for the patient.

Why is it used?

The EBUS procedure allows physicians to perform a technique known as transbronchial needle aspiration (TBNA) to obtain tissue 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.

What makes EBUS different?

During a conventional diagnostic procedure, a surgical procedure known as a mediastinoscopy is performed to provide access to the chest. A small incision is made in the neck just above the breastbone or next to the breastbone. Next, a thin scope, called a mediastinoscope is inserted through the opening to provide access to the lungs and surrounding lymph nodes. Tissue is then collected via biopsy.

During the EBUS procedure however, the physician can perform a needle biopsy on lymph nodes using a bronchoscope inserted through the mouth. For the EBUS procedure, a special endoscope is fitted with an ultrasound processor and a fine-gauge aspiration needle is guided through the patient's trachea. No incisions are necessary. The ultrasound display provides real-time imaging of the surface of the airways, blood vessels, lungs, and lymph nodes. The images allow the physician to view difficult-to-reach areas and to access more, and smaller, lymph nodes than through a conventional mediastinoscopy.