

# Endobronchial Ultrasound

Prior to doing an endobronchial ultrasound, your doctor will first do a bronchoscopy. In a bronchoscopy, a tube is inserted through your mouth or nose into the large airways leading into your lungs. After the tube is in place, doctors then use a special ultrasound probe to send sound waves (ultrasound) through the walls of your airways into the surrounding areas, including the lungs and mediastinum (the area of the chest that lies between the lungs).

If abnormal areas are seen on the ultrasound, your doctor will then take a sample of tissue with a small needle guided by the ultrasound (transbronchial needle aspiration). The sample is then sent to a lab to look for the presence of cancer, or other abnormalities.

To recommend the best treatments for lung cancer, it is very important to understand the stage of a lung cancer – if, and how far, the cancer has spread. Accurate staging can reduce the amount of tissue that is removed during surgery for lung cancer. It may also spare you from going through unnecessary surgery if your cancer would be best treated another way, such as with chemotherapy or radiation. Traditionally, accurate staging has often required invasive tests such as mediastinoscopy and other chest surgeries such as a thoracoscopy or thoracotomy. In some cases, an endobronchial ultrasound may give doctors the information they need to stage a cancer without having to recommend these more invasive procedures.

There are four primary reasons your doctor may recommend an endobronchial ultrasound:

- To look for the presence of tumors or enlarged lymph nodes.
- To diagnose tumors within the lung
- To diagnose lymph nodes in the mediastinum (the area between the lungs) or hilum (the region near the top of the lungs)
- To diagnose tumors in the mediastinum

In addition to diagnosing and staging lung cancer, endobronchial ultrasound may also be used to detect infections, or help to diagnose other lung conditions such as sarcoidosis.