



# Specialized techniques and analysis in thorax medicine and surgery

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## DESCRIPTION

Be aware of respiratory diseases such as asthma and chronic obstructive pulmonary disease, and illnesses such as pneumonia, bronchitis, and lung cancer. Because chest disorders often affect breathing, our caregivers strive to diagnose and treat chest disorders as early as possible so that it can return to optimal health. Thoracic medicine deals with diseases that affect the lungs, the lining of the lungs, and sometimes the chest wall itself. These include conditions such as asthma, Chronic Obstructive Pulmonary Disease (COPD), and infections such as pneumonia and tuberculosis. It also treats malignant tumors such as lung cancer and mesothelioma (a rare form of cancer caused by exposure to asbestos).

Thoracic surgery refers to operations on the organs of the chest, such as the heart, lungs, and esophagus. Examples of thoracic surgery include coronary artery bypass surgery, heart transplantation, lung transplantation, and removal of part of the lung that has cancer. Specialized thoracic surgeons treat lung and esophageal cancers, and specialized cardiac surgeons treat the heart.

Professional referral services can be provided in both hospitals and communities. These include

lung cancer and mesothelioma teams. Tuberculosis nurse and specialist thoracoscopy service. This is a procedure that allows the doctor to examine a specific area of the throat and take samples of tissue and fluid.

### Common respiratory diseases

Asthma is a very common respiratory disease that can cause airways to narrow, swell, and produce excess mucus. It can make breathing difficult, causing coughing, wheezing, and shortness of breath.

Bronchiectasis is a condition in which the large airways in the lungs are damaged and permanently widened in Video-Assisted Thoracic Surgery (VATS) process.

In this procedure, the surgeon inserts a long, thin tube with a camera attached through a small incision in the chest. This instrument is called a thoracoscope. Special instruments are also inserted through a small incision in the throat. The surgeon sees video from the thoracoscope on a high-definition monitor in the operating room.

## **Robotic thoracic surgery**

Similar to VATS, this procedure allows the surgeon to view the surgical site through a camera inserted into the chest. The surgeon operates at the console with controls that translate the movements of the surgeon's hands, wrists, and fingers into movements of instruments inserted into the throat.

Thoracic medical services offer many benefits, including:

- A multidisciplinary team of thoracic surgeons, pulmonologists, sleep physicians, oncologists, registered nurses and allied health professionals
- Access to the latest technology, including specialized equipment for diagnosing and treating thoracic conditions
- On-going support after discharge
- The highest level of care and attention from a team of qualified caregivers.

Cardiovascular surgeons can treat patients suffering from leaky heart valves, heart failure, blocked heart valves, coronary artery disease, atrial fibrillation, and thoracic aortic aneurysms.

General thoracic surgeons can provide life-saving or life-prolonging procedures for patients with hiatus hernia, severe emphysema, lung cancer, dysphagia, excessive sweating, gastroesophageal reflux disease, and esophageal cancer. Congenital heart surgeons, on the other hand, can surgically treat aortic stenosis, atrial and ventricular septal defects, aplasia syndrome, and aortic dislocation.

## **CONCLUSION**

Specialties such as anesthesia for thoracoscopy or VATS, single-lung ventilation and anesthesia-related issues, use of bronchial blockers, consideration of specific lesions such as Univent tubes, double-lumen tubes, and subglottis Stenosis, pulmonary sequestering lesions, bronchogenic cysts, cystic adenomatous malformation, congenital emphysema, congenital diaphragmatic hernia, tracheoesophageal fistula and esophageal atresia are discussed. The pathophysiology and treatment strategies of the anterior mediastinal mass are also presented, including algorithms for scoring these masses.