

# PATHOLOGY

## Diagnostic Terms:

**Auscultation**-Listening to sounds within the body

**Percussion**-Tapping on a surface to determine the difference in the density of the underlying structure

**Pleural Rub**-Scratchy sound produced by pleural surfaces rubbing against each other.

**Rales (crackles)**-Fine crackling sounds heard on auscultation (during inhalation) when there is fluid in the alveoli.

**Rhonchi** (singular: rhonchus)-Loud rumbling sounds heard on auscultation of bronchi obstructed by sputum.

**Sputum**-Material expelled from the bronchi, lungs, or upper respiratory tract by spitting

**Stridor**-Strained, high-pitched sound heard on inspiration caused by obstruction in the pharynx or larynx.

**Wheezes**-Continuous high-pitched whistling sounds produced during breathing

## UPPER RESPIRATORY DISORDERS:

**Croup**-Acute viral infection of infants and children with obstruction of the larynx, accompanied by barking cough and stridor.

The most common causative agents are influenza viruses or respiratory syncytial virus (RSV).

**Diphtheria**-Acute infection of the throat and upper respiratory tract caused by the diphtheria bacterium (*Corynebacterium*). Inflammation occurs, and a leathery, opaque membrane (Greek diphthera, leather membrane) forms in the pharynx and trachea. Immunity to diphtheria (by production of antibodies) is induced by the administration of weakened toxins (antigens) beginning between the sixth and eighth weeks of life. These injections usually are given as combination vaccines with pertussis and tetanus toxins and so are called DPT injections.

**Epistaxis**-Nosebleed.

Epistaxis is a Greek word meaning a dropping. It commonly results from irritation of nasal mucous membranes, trauma, vitamin K deficiency, clotting abnormalities, blood-thinning medications (such as aspirin and warfarin), or hypertension.

**Pertussis** -Whooping cough; highly contagious bacterial infection of the pharynx, larynx, and trachea caused by *Bordetella pertussis*.

Pertussis is characterized by paroxysmal (violent, sudden) spasms of coughing that ends in a loud "whooping" inspiration.

## BRONCHIAL DISORDERS

**Asthma**-Chronic bronchial inflammatory disorder with airway obstruction due to bronchial edema and constriction and increased mucus production

**Bronchiectasis**-Chronic dilation of a bronchus, usually secondary to infection

**Chronic Bronchitis**-Inflammation of bronchi persisting over a long time; type of chronic obstructive pulmonary disease (COPD)

**Cystic Fibrosis (CF)**-Inherited disorder of exocrine glands resulting in thick mucinous secretions in the respiratory tract that do not drain normally

## LUNG DISORDERS

**Atelectasis**-Collapsed lung; incomplete expansion of alveoli

**Emphysema**-Hyperinflation of air sacs with destruction of alveolar walls

**Lung Cancer**-Malignant tumor arising from the lungs and bronchi

**Pneumoconiosis**-Abnormal condition caused by dust in the lungs, with chronic inflammation, infection, and bronchitis

**Pneumonia**-Acute inflammation and infection of alveoli, which fill with pus or products of the inflammatory reaction

**Pulmonary Abscess**-Large collection of pus (bacterial infection) in the lungs.

**Pulmonary Edema**-Fluid in the air sacs and bronchioles.

**Pulmonary Embolism (PE)**-Clot or other material lodges in vessels of the lung

**Pulmonary Fibrosis**-Formation of scar tissue in the connective tissue of the lungs

**Sarcoidosis**-Chronic inflammatory disease in which small nodules (granulomas) develop in lungs, lymph nodes, and other organs

**Tuberculosis (TB)**-Infectious disease caused by *Mycobacterium tuberculosis*; lungs usually are involved, but any organ in the body may be affected

## PLEURAL DISORDERS

**Mesothelioma**-Rare malignant tumor arising in the pleura

**Pleural Effusion**-Abnormal accumulation of fluid in the pleural space (cavity)

**Pleurisy** (Pleuritis)-Inflammation of the pleura

**Pneumothorax**-Collection of air in the pleural space

## X-RAYS

**Chest X-Ray (CXR)**-Radiographic image of the thoracic cavity (chest film)

**Computed Tomography (CT) Scan of the Chest**-Computer-generated series of x-ray images show thoracic structures in cross section and other planes

## MAGNETIC RESONANCE IMAGING

**Magnetic Resonance Imaging (MRI) of the Chest**-Magnetic waves create detailed images of the chest in frontal, lateral (sagittal), and cross-sectional (axial) planes

## **NUCLEAR MEDICINE TEST**

**Positron Emission Tomography (PET) Scan of the Lung**-Radioactive glucose is injected, and images reveal metabolic activity in the lungs

**Ventilation-Perfusion (V/Q) Scan**-Detection device records radioactivity in the lung after intravenous injection of a radioisotope and inhalation of a small amount of radioactive gas (xenon)

## **OTHER PROCEDURES**

**Bronchoscopy**-Fiberoptic endoscope examination of the bronchial tubes

**Endotracheal Intubation**-Placement of a tube through the mouth into the pharynx, larynx, and trachea to establish an airway

**Laryngoscopy**-Visual examination of the voice box

**Lung Biopsy**-Removal of lung tissue followed by microscopic examination

**Mediastinoscopy**-Endoscopic visual examination of the mediastinum

**Pulmonary Function Tests (PFTs)**-Tests that measure the ventilation mechanics of the lungs: airway function, lung volume, and the capacity of the lungs to exchange oxygen and carbon dioxide efficiently

**Thoracentesis**-Surgical puncture to remove fluid from the pleural space

**Thoracotomy**-Large surgical incision of the chest

**Thoracoscopy (Thorascopy)**-Visual examination of the chest via small incisions and use of an endoscope

**Tracheostomy**-Surgical creation of an opening into the trachea through the neck

**Tuberculin Test**-Determines past or present tuberculous infection based on a positive skin reaction

**Tube Thoracostomy**-A flexible, plastic chest tube is passed into the pleural space through an opening in the chest