Clinical Signs and Symptoms

- Cough
- Dyspnea
- Wheeze
- Tightness or pain in chest
- Cyanosis
- Fever (if infection manifests)
- Lethargy, confusion

Pneumonia

Interstitial
- Caused by viruses, usually influenza
- Radiographic findings minimal
- Not responsive to antibiotics

Interstitial Pneumonia on CXR
Infections: Lower Respiratory

• Pulmonary Tuberculosis
  – Caused by *mycobacterium tuberculosis*
  – May also affect other areas of the body such as the skeletal, genitourinary, and central nervous systems
  – Usually asymptomatic
  – Appears as “coin-like” lesions most commonly seen in the apical region

Patient with progressive primary TB, multiple nodules with tissue consolidation
Obstructive Diseases

Emphysema
– Dilation of air spaces, dyspnea, barrel chest
– oversized lungs, flattened lung bases

patient with severe obstructive pulmonary disease related to emphysema

patient with severe obstructive pulmonary disease related to emphysema
Atelectasis

- Incomplete expansion of the lung as a result of partial or total collapse
- Not a disease by itself but a sign of an abnormal process
- Often trauma induced
- Compression atelectasis caused by pleural effusions, pneumothorax, or space occupying lesions
Lobar Atelectasis, LUL
Pneumoconioses

- An occupational disease caused by inhalation of foreign inorganic dust
- Results in pulmonary fibrosis
- Effects of the disease are dependent on the type of particle, how much was inhaled, and area of settling
  - Particles larger than 10 µm are filtered by nasal cavities, smaller than 1µm are exhaled
  - Most likely to be trapped will be about 1 to 5 µm in size

Pneumoconioses (cont)

- Silicosis
  - Oldest known pneumoconiosis & most serious
  - Inhalation of quartz (silica) dust, latent period of 10 to 30 years
  - Common to miners, grinders, and sandblasters
  - Alveoli form large amounts of fibrous connective tissue
  - No treatment except for a lung transplant

Chest radiograph showing multiple small nodules predominantly in the upper and middle zones.
Coal Worker’s Pneumoconiosis (CWP) – multiple nodular densities