- **Emphysema**
  - Pathologically:
    - Alveolar wall destruction
    - Enlargement of distal airspace
    - Loss of lung elastic recoil
    - Bullae formation
  
- **Symptoms:**
  - Progressive dyspnoea
  - Minimal cough/sputum

- **Signs:**
  - Hyper-expansion (barrel chest)
  - Decreased breath sounds
  - Hypoxaemia

- **Measuring extent of Emphysema:**
  - CT scanning
  - Pulmonary function testing:
    - Lung volumes (TLC/RV) increased
    - Gas transfer (TLCO/KCO) decreased

**COPD: Airways Obstruction**

- Increased resistance to airflow caused by airway remodelling

- Combination of:
  - Large airway disease:
    - Mucosal inflammation - bronchoconstriction
    - Intra-luminal mucus
    - Smooth Muscle Hypertrophy
  - Small airway disease:
    - Above
  - Loss of outward traction on airways due to alveolar destruction (why its irreversible)

- Due to combined effects of chronic bronchitis and emphysema