

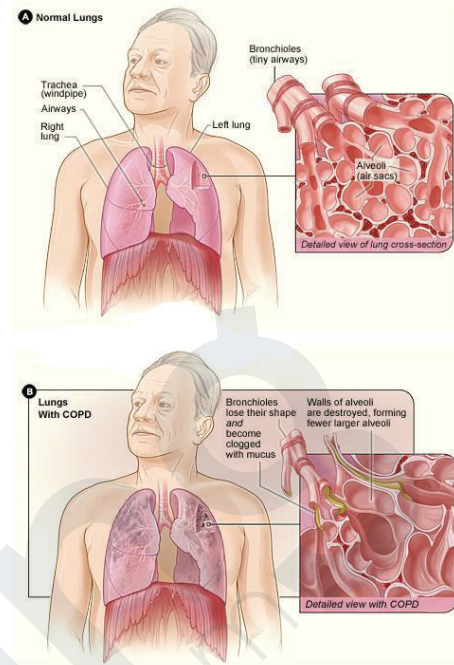
COPD PATHOCHART

PATHOPHYSIOLOGY

Chronic obstructive pulmonary disease is an obstruction of airflow due to emphysema and chronic bronchitis. Emphysema is a destruction of alveoli due to chronic inflammation, and a decreased surface area for gas exchange. Chronic bronchitis is chronic airway inflammation with productive cough and excessive sputum production.

ASSESSMENT FINDINGS

Chronic respiratory issues, dyspnea, cough, hypoxemia, hypercarbia, barrel chest, use of accessory muscles, chest congestion on x-ray, crackles, shallow respirations, hyperresonance on percussion, pallor, cyanosis



DIAGNOSTICS

- ABG, pulmonary function tests
- Chest x-ray
- Pulse ox
- CBC (H/H)
- Sputum culture

NURSING PRIORITIES

- Promote sufficient gas exchange
- Ensure effective breathing pattern
- Optimize activity tolerance

THERAPEUTIC MANAGEMENT

- Maintain a high-Fowler's position
- Encourage coughing/airway clearance
- Assess SpO₂
- Stimulus to breathe is low Po₂ not elevated Pco₂ (as in healthy individuals)
- May provide supplemental oxygen but do so cautiously (do not administer O₂ at greater than 2 L/min)
- Provide chest physiotherapy (CPT)
- Teach pursed lip breathing
- Small frequent meals to prevent hypoxia
- Increase fluid intake to 3000 mL/day to keep secretions thin
- Avoid allergens and triggers (dust, infections, spicy foods, smoking)

MEDICATION THERAPY

- Bronchodilators
- Cholinergic antagonists
- Anti-inflammatory agents and/or combos
- Heated and humidified oxygen (monitor amount very closely)