

DISEASE / PATHOLOGY

- Air enters the pleural space and causes partial or complete lung collapse.
- Primary process: loss of negative intrapleural pressure limits lung expansion.
- Why it matters: can impair oxygenation and may progress to tension pneumothorax.

RISK FACTORS

- Who is most at risk? Tall thin young adults, COPD patients, trauma patients.
- History / exposure: chest trauma, central line placement, mechanical ventilation, smoking.
- Genetics / lifestyle: bleb disease and prior pneumothorax increase risk.

SIGNS AND SYMPTOMS

- Hallmark findings: sudden pleuritic chest pain, dyspnea, absent breath sounds on one side.
- Early: tachycardia, tachypnea, low SpO₂, unequal chest rise.
- Late / urgent: severe distress, hypotension, tracheal deviation if worsening.

DIAGNOSTIC TESTING

- Tests, labs, imaging, procedures: chest x-ray, bedside ultrasound, pulse oximetry, ABGs if severe.
- Gold standard: imaging showing air in pleural space.
- What confirms it: clinical findings with radiologic evidence of lung collapse.

TREATMENT

- First-line: assess breathing and oxygenation first; give oxygen as ordered.
- Small stable cases may be observed; larger cases may need needle aspiration or chest tube.
- Keep chest drainage system below chest level if present.
- Nursing considerations: monitor air leak, breath sounds, respiratory status, and re-expansion.
- Nursing need-to-know: do not clamp a chest tube unless specifically ordered.
- Nursing need-to-know: sudden hypotension can signal tension pneumothorax.

PATIENT EDUCATION

- Home care: avoid smoking and follow activity restrictions.
- Keep follow-up imaging appointments.
- When to call: sudden chest pain, increasing shortness of breath, or chest tube problems.

ADDITIONAL NOTES:

- NCLEX must know: unilateral absent breath sounds are high yield.
- Red flag: worsening distress after chest trauma.
- Common exam trap: simple pneumothorax can become tension pneumothorax.
- Priority action: assess oxygenation and prepare for decompression support if unstable.