Spontaneous Pneumothorax

Spontaneous pneumothorax occurs due to rupture of a subpleural emphysematous bleb that leads to the accumulation of air in the pleural space. It is more common in tall and thin young males.

PLAY PICMONIC

Mechanism

Accumulation of Air in Pleural Space
Air in Space between Lungs and Chest-wall
Rupture of apical blebs causes air to accumulate in the pleural space.

Tall and Thin Young Males
Tall, Thin, and Young Male
Spontaneous pneumothorax is more common in taller and thinner (asthenic) individuals.

Bleb or Bulla Rupture
Bulb and Bull from Rupture
The mechanism for formation of these blebs or bulla is unknown but have been attributed to congenital abnormalities, inflammation of the bronchioles and disturbances of the collateral ventilation.

Underlying Disease
Underlying Diseased-villain
Spontaneous pneumothorax is more common in individuals with underlying disease of the small airways. Examples of this include interstitial lung disease, infection of the lung, lung cancer, COPD, and connective tissue diseases.

Signs and Symptoms

Hypoxemia
Hippo-blood-O2
Ventilation-perfusion mismatch can lead to decreased PaO₂.

Chest Pain
Chest Pain-bolt
Dyspnea and chest pain are the most common symptoms.

Decreased Breath Sounds
Down-arrow Muffled Lungs
Decreased breath sounds are heard due to presence of air in the pleural space.

Hyperresonance
Hiker-resonating
Increased intrapleural pressure can lead to hyperresonance on percussion.

Shortness of Breath (SOB)

S.O.B.

Dyspnea (SOB) and chest pain are the most common symptoms.