

4-13 lists terms used to describe various respiration patterns.

Box 4-13

Various Patterns of Respiration

Tachypnea: Increased rate

Bradypnea: Decreased rate

Dyspnea: Distress during breathing

Apnea: Cessation of breathing

Hyperpnea: Increased depth

Hypoventilation: Decreased depth (shallow) and irregular rhythm

Hyperventilation: Increased rate and depth

Kussmaul respiration: Hyperventilation, gasping and labored respiration; usually seen in diabetic coma or other states of respiratory acidosis

Cheyne-Stokes respiration: Gradually increasing rate and depth with periods of apnea

Biot respiration: Periods of hyperpnea alternating with apnea (similar to Cheyne-Stokes except that depth remains constant)

Seesaw (paradoxic) respirations: Chest falls on inspiration and rises on expiration

Agonal: Last gasping breaths before death

Various pulmonary abnormalities produce **adventitious sounds** that are not normally heard over the chest. These sounds occur in addition to normal or abnormal breath sounds. They are classified into two main groups: (1) **crackles**, which result from the passage of air through fluid or moisture, and (2) **wheezes**, which are produced as air passes through narrowed passageways, regardless of the