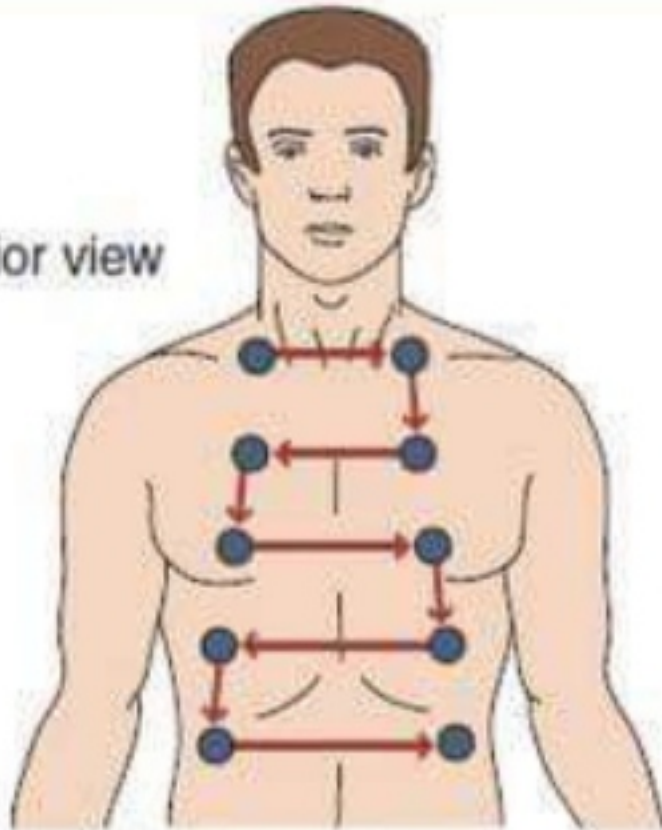


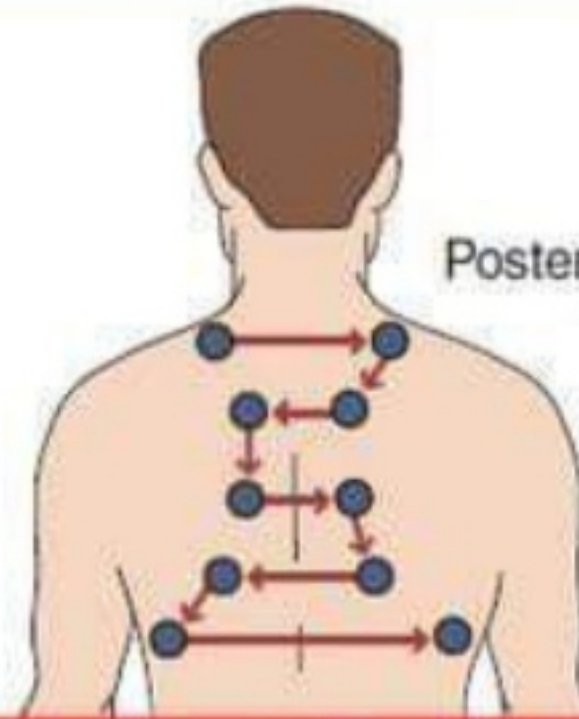
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Order of Auscultating Lung Sounds

Anterior view



Posterior view



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Respiratory Patterns

Normal (eupnea)	Regular and comfortable at 12–20 breaths/minute.
Tachypnea	>20 breaths/minute.
Bradypnea	<12 breaths/minute.
Hyperventilation	Rapid, deep respiration >20 breaths/minute.
Apneustic	Neurological—sustained inspiratory effort.
Cheyenne-Stokes	Neurological—alternating patterns of depth separated by brief periods of apnea.
Kussmaul's	Rapid, deep, and labored—common in DKA.
Air trapping	Difficulty during expiration— emphysema.

LUNG SOUNDS

WHEEZES *(Wheezes)*

Description: High-Pitched, Musical
Due to: Air Moving Through Narrowed Airways
Location: Throughout Entire Lung
Example: Asthma Exacerbations

RHONCHI *(Rattles)*

Description: Low-Pitched Rumbling or Gurgling
Due to: Narrowed Airways
Location: Trachea and Bronchi
Example: Chronic Bronchitis

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CRACKLES *(Crackles)*

Description: Fine: Hair Moving Through Fingers, Course: Velcro
Due to: Collapsed Small Airways and Alveoli "Popping Open"
Location: Lower Lobes
Example: Pulmonary Edema

PLEURAL FRICTION RUB *(Friction)*

Description: Dry, Rubbing or Squeaking
Due to: Inflamed Pleura
Location: Anterior Lateral Lung
Example: Autoimmune Disorders