

GUIDE TO LUNG SOUNDS

Ronchi (Rattles)

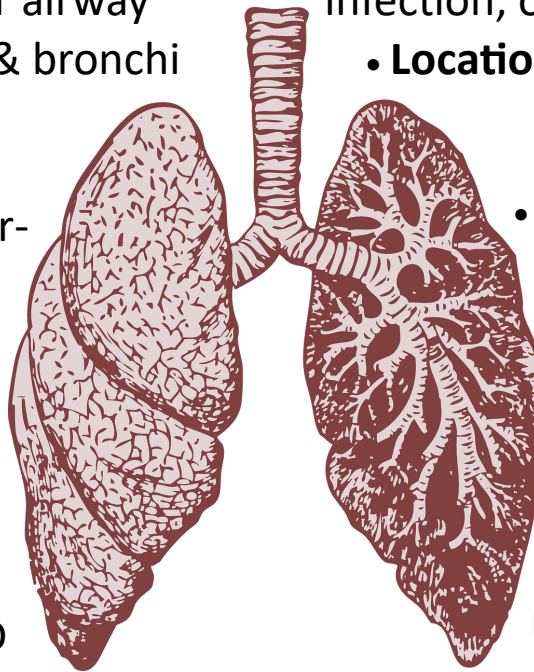
- Continuous, low-pitched, coarse, rattling sound
- Heard on both inhalation and exhalation
- Usually caused by a blockage or secretions in upper airway
- **Location:** trachea & bronchi

Stridor

- Continuous, high-pitched wheezing sometimes described as “musical”
- Mostly inspiratory but may be heard on exhalation
- Caused by disrupted airflow, croup, infection, or a foreign object
- **Location:** trachea & bronchi

Wheezing

- High-pitched expiratory noise; may be heard without a stethoscope
- Caused by narrowed airways
- Associated with asthma and COPD
- **Location:** throughout entire lung



Rales (Crackles)

- Discontinuous bubbling/popping that may sound similar to pulling apart Velcro
- Heard on inhalation and can be further described as coarse, fine, moist, or dry
- May be caused by collapsed airways and/or alveoli “popping open”

Pleural Friction Rubs

- Low-pitched, grating, or creaking heard during exhalation
- Caused by inflamed pleural surfaces rubbing against each other
- **Location:** usually localized to small area