

ANATOMY OF LUNG FUNCTIONS

- **Trachea**
Main airway passage
- **Right Lung**
3 Lobes (Superior, Middle, Inferior)
- **Bronchi**
Branching airways

[DIAGRAM ILLUSTRATION]

- **Left Lung**
2 Lobes (Superior, Inferior)
- **Alveoli**
Microscopic gas exchange sites
- **Diaphragm**
Primary respiratory muscle

GAS EXCHANGE

Oxygen is absorbed into the bloodstream via the alveolar-capillary membrane, while carbon dioxide is removed from the blood to be exhaled.

PH REGULATION

By adjusting the rate of CO₂ exhalation, the lungs help maintain the body's acid-base balance (homeostasis).

PROTECTION

Cilia and mucus trap particles and pathogens, while coughing facilitates the mechanical clearance of irritants from the respiratory tract.

VOCALIZATION

Air passing through the larynx vibrates the vocal folds, enabling the production of sound and speech.

Educational Resource | Respiratory Anatomy Series