

## Respiratory System

The primary function of respiration is to obtain O<sub>2</sub> for use by the body cells and to eliminate the CO<sub>2</sub> the cells produce.

### Basic Structure of the Respiratory System

**Respiratory tract** is the anatomical structure through which air moves in and out. It **includes**:

- 1- Nose.
- 2- Pharynx.
- 3- Larynx.
- 4- Trachea.
- 5- Bronchi.
- 6- Lungs.

- The structures of the **upper respiratory system** include the nose, pharynx, and associated structures.

- The **lower respiratory system** includes the larynx, trachea, bronchial tree and lungs.

### Types of Respiration

Most people think of respiration as the process of breathing in and breathing out. In physiology, however, respiration has a broader meaning.

Respiration is classified into two types:

1. **External respiration** that involves exchange of respiratory gases, i.e. oxygen and carbon dioxide between lungs and blood
2. **Internal respiration**, which involves exchange of gases between blood and tissues.

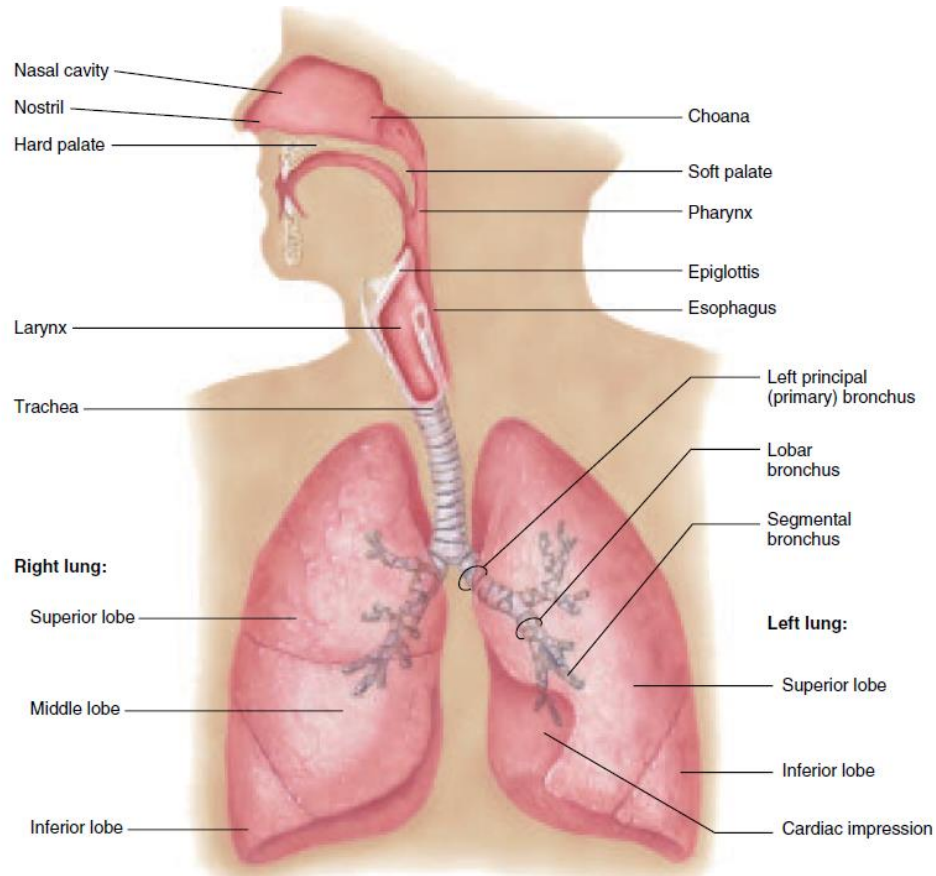
### Non-respiratory Functions of the Respiratory System

- 1- It enables speech, singing, and another vocalization.
- 2- It defends against inhaled foreign matter.
- 3- It removes, modifies, activates, or inactivates various materials.
- 4- The nose, a part of the respiratory system, is the organ of smell.

## Phases of Respiration

Respiration occurs in two phases:

1. **Inspiration:** during which air enters the lungs from atmosphere.
2. **Expiration:** during which air leaves the lungs.



## Common Respiratory Disorders

- 1- Cough.
- 2- common cold.
- 3- Influenza: Influenza virus.
- 4- Pneumonia: Pneumococcus bacterium.
- 5- Tuberculosis: Tuberculosis bacteria.
- 6- Cancer.