



# Respiratory System

## 1. What is the Respiratory System?

The respiratory system is a group of tissues and organs that help us breathe.

**It includes:**

- Nose
- Trachea (windpipe)
- Lungs

**Main Function:**

- Supplies oxygen to the body.
- Removes carbon dioxide (waste gas).

## 2. Parts of the Respiratory System

**Nose**

**Inhalation:** Breathing in oxygen-rich air.

**Exhalation:** Breathing out air filled with carbon dioxide.

**Nasal Hair & Mucus:**

- The nose has fine hair and a sticky substance called mucus.
- These trap dust and germs, preventing them from entering the lungs.

### Trachea (Windpipe)

**Function:**

It is a tube that carries air from the nose to the lungs.

**Location:**

Connects the nose and lungs.

### Lungs

We have two lungs:

- Left lung → smaller (to make space for the heart).
- Right lung → larger.

**Function:**

Helps in exchanging oxygen and carbon dioxide.

**Protection:**

The rib cage surrounds the lungs and heart to protect them from damage.

**Diaphragm**

A large muscle located below the lungs.

**Function:**

Works with the lungs to help in breathing. Moves downward when we inhale (to create space for air). Moves upward when we exhale (to push air out).

**3. Key Functions of the Respiratory System**

**Inhale:** Take in oxygen.

**Exhale:** Release carbon dioxide.

**Protection:**

- Nasal hair & mucus trap dust and germs.
- Rib cage protects lungs and heart.

**Tip for Students:**

To remember the main parts of the respiratory system, use the acronym:

**NTL-D**

- Nose
- Trachea
- Lungs
- Diaphragm

These work together to help us **breathe** easily!