



Science  
The Respiratory System

**The respiratory system is a transport system that takes in air and helps us breathe.**

You've probably seen someone choke because food went down the wrong way. Instead of going into the digestive system, the food went into the respiratory system.

- Air enters the body through the **nose** or **mouth** and goes down the **windpipe** or **trachea** into the **lungs**.
- In the lungs the air goes into **air sacs** called **alveoli**. The alveoli are at the ends of tiny air tubes.
- As blood passes through the lungs, it gives off carbon dioxide and takes in oxygen.
- The **respiratory system** and the **circulatory system** work together during respiration.
- The **diaphragm** is a **dome-shaped muscle** used in breathing. It is at the bottom of the lungs. When breathing in the diaphragm contracts. Breathing is made possible by the diaphragm from a muscle beneath your lungs. When this muscle moves, air is moved into or out of your lungs.
- All your body cells need oxygen from the air to live.
- When you breathe in air from your mouth or nose it goes into your trachea. Trachea is an organ that carries air into the lungs. The trachea branches into two smaller tubes called bronchi. The trachea and the bronchi are coated with mucus (a sticky substance that traps germs and dust). Tiny hairs line the trachea and bronchi. These hairs sweep the mucus up and out. This keeps dirt and germs out of your lungs. **Smoking and breathing in tobacco** harm these small hairs.
- Tobacco smoke destroys lung tissue. It also decreases the amount of oxygen that can get into the blood cells.
- The lungs are organs that oxygen pass into your body. Inside the lung's oxygen passes through the thin walls of tiny air sacs.
- There the oxygen moves into the blood and is carried to all parts of the body.
- Carbon Dioxide is carried by your blood into the lungs. Carbon dioxide is a waste gas. It goes out of your body when you exhale.



### Caring for your Respiratory system

- Avoid smoking and breathing in tobacco smoke.
- Add active exercise to your daily activity.
- If you have asthma or a breathing disorder, follow your doctor's directions and take your medication.
- Exercise indoors on days of air pollution.

### The Respiratory System Diagram

