The Respiratory System

Every cell in the body needs oxygen to survive. The respiratory system provides a way for oxygen to enter the body. It also provides a way for carbon dioxide, the waste product of cells, to leave the body. The respiratory system is made up of 2 sections:

- the upper respiratory tract and
- the lower respiratory tract



The Upper Respiratory Tract

Mouth and Nose

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Air enters the body through your mouth and nose. The air is warmed, moistened and filtered by mucous secretions and hairs in the nose.

Larynx or Voice Box

The larynx sits at the top of the trachea. It contains your vocal cords. Each time you breathe in or inhale, the air passes through the larynx, down the trachea and into the lungs.

When you breathe out or exhale, the air moves from your lungs, up your trachea and out through your nose and mouth.

When you speak, the vocal cords tighten up and move closer together. Air from the lungs is forced between them and causes them to vibrate. This produces sound. Your tongue, lips and teeth form words out of these sounds.

Trachea

The trachea is the tube that connects the mouth and nose to your lungs. It is also called the windpipe. You can feel some of your trachea in the front of your neck. It feels firm with tough rings around it.



Bronchial Tubes

The trachea splits into 2 bronchial tubes in your lungs. These are called the left bronchus and right bronchus. The bronchus tubes keep branching off into smaller and smaller tubes called bronchi.

The tubes are lined with fine hair-like structures called cilia. As the cilia sway back and forth, they carry the mucous upwards to the trachea where it can be coughed up or swallowed.

Alveoli

At the end of the bronchial tubes are air sacs called alveoli. The alveoli look like bunches of grapes but contain air. This is where the oxygen enters the blood and the carbon dioxide exits. There are about 300 million alveoli in each lung.

Lungs

Your lungs are made up of 5 pink, spongy lobes. There are 3 lobes on your right side and 2 lobes on your left side. Your heart is between them a little to the left.

Diaphragm

The diaphragm is a long, flat muscle that sits below your lungs. The diaphragm helps you get air in and out of your lungs by moving up and down. When your diaphragm moves down, you breathe in or inhale. When your diaphragm moves up, you breathe out or exhale.