

# The Respiratory System

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All cells in our bodies need oxygen but cannot store very much. We would die in approximately 4 minutes without it. When we breathe, lungs soak up oxygen and transfer it to the blood where it is pumped through your body. In the cells, oxygen is turned into energy.

Air enters the body through the nose and mouth. The air is warmed in the nose, and the nostrils are lined with hair and mucus to filter dust.

The small piece of cartilage in your throat that opens and closes to let air and food down different passages is called the epiglottis. The main airway to your lungs is called the windpipe or trachea.

Your lungs can be compared to pinkish-grey sponges that soak up oxygen. The network of air passages found here is called the bronchial tree. The smallest tubes end in little round sacs one cell thick called alveoli. This is where red blood cells pick up oxygen and release carbon dioxide. There are 600 million alveoli in our lungs. There is a small space in the upper left lobe where the heart fits.

A large muscular sheet called the diaphragm helps you breathe; It flattens out and moves downwards when you inhale and springs back and moves upwards when you exhale.

The average adult breathes 16 times every minute, and 30 - 60 times every minute after heavy exercise.

A disease of the lungs is asthma. Some asthma triggers are animals, moulds, pollen and air pollutants. (samples only – answers will vary)

The major organs of the respiratory system are: lungs, windpipe, and blood vessels.

The major tissues of the respiratory system are: epithelial, nerve, connective, muscle.

The major function of the respiratory system is: gas exchange.