

RESPIRATORY SYSTEM

Your respiratory system is made up of the organs in your body that help you to breathe. Remember, that Respiration is breathing.

FUNCTIONS

Transport air into the lungs

Facilitates diffusion of air into the blood stream

Helps remove carbon dioxide

PARTS OF RESPIRATORY SYSTEM

Nose

The nose is responsible in smelling something. It has two openings called nostrils. The air enters the nasal passages through the nostrils. The air that you breathe is cleaned before it reached the lungs through the cilia and mucous membrane.

Trachea

The trachea is sometimes called the windpipe. It carries air from the throat into the lungs. It ranges from 20-25mm in diameter and 10-16cm in length. The inner membrane of the trachea is covered in tiny hairs called cilia, which catch particles of dust which we can then remove through coughing.

Bronchi

The trachea divides into two tubes called bronchi, one entering the left and one entering the right lung. The left bronchi are narrower, longer and more horizontal than the right. Irregular rings of cartilage surround the bronchi, whose walls also consist of smooth muscle. Once inside the lung the bronchi split several ways, forming tertiary bronchi.

Bronchioles

Tertiary bronchi continue to divide and become bronchioles, very narrow tubes, less than 1 millimeter in diameter. There is no cartilage within the bronchioles and they lead to alveolar sacs.

Alveoli

Individual hollow cavities contained within alveolar sacs (or ducts). Alveoli have very thin walls which permit the exchange of gases (Oxygen and Carbon Dioxide). They are surrounded by a network of capillaries, into which the inspired gases pass. There are approximately 3 million alveoli within an average adult lung.

Diaphragm

Breathing starts with a dome-shaped muscle at the bottom of the lungs called the diaphragm. When you breathe in, the diaphragm contracts. When it contracts it flattens out and pulls downward. This movement enlarges the space that the lungs are in. This larger space pulls air into the lungs. When you breathe out, the diaphragm expands reducing the amount of space for the lungs and forcing air out. The diaphragm is the main muscle used in breathing.

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Lungs

The lungs are the main organs of the respiratory system. In the lungs oxygen is taken into the body and carbon dioxide is breathed out. The red blood cells are responsible for picking up the oxygen in the lungs and carrying the oxygen to all the body cells that need it. The red blood cells drop off the oxygen to the body cells, then pick up the carbon dioxide which is a waste gas product produced by our cells. The red blood cells transport the carbon dioxide back to the lungs and we breathe it out when we exhale.

Common Respiratory Problem

Asthma

Bronchitis

Pneumonia

Chronic Obstructive Pulmonary Disease

Emphysema

Common Respiratory Diseases

Asthma

COPD

Pulmonary Tuberculosis

Pneumonia

Cystic Fibrosis

Lung Cancer

Alveolitis

Pneumothorax