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## RESPIRATORY SYSTEM

BODY ON FILE™

# Introduction

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This system of branching tubes and cavities alternately admits air to the chest cavity to supply blood with oxygen, and expels air, ridding blood of waste carbon dioxide and some water. These structures are involved:

**Nose** Used for breathing and smelling, this organ admits air through two openings, the nostrils, separated by a bone and cartilage septum. The nasal cavity connects with sinuses - skull cavities - and leads to the pharynx and bronchial tree.

**Pharynx** This is the throat and back of the nose.

**Larynx** This is the top of the trachea.

**Trachea** This is the windpipe, a broad tube made rigid by rings of cartilage.

**Bronchi** These are the two main tubes that stem from the trachea. Tiny tubes arising from the bronchi are called bronchioles.

**Alveoli** There are more than 600 million of these tiny cup-like sacs opening on bronchioles. Capillaries in alveoli walls absorb oxygen and release carbon dioxide and water.

**Bronchial tree** This tree-like structure comprises trachea, bronchi, bronchioles, and alveoli.

**Lungs** These two organs hang in the chest cavity and contain structures of the bronchial tree divided in segments. Movements of intercostal muscles and diaphragm make the lungs fill and empty.

**Pleura** This thin, glistening membrane encloses the bronchial tree and lines the inside of the chest cavity.