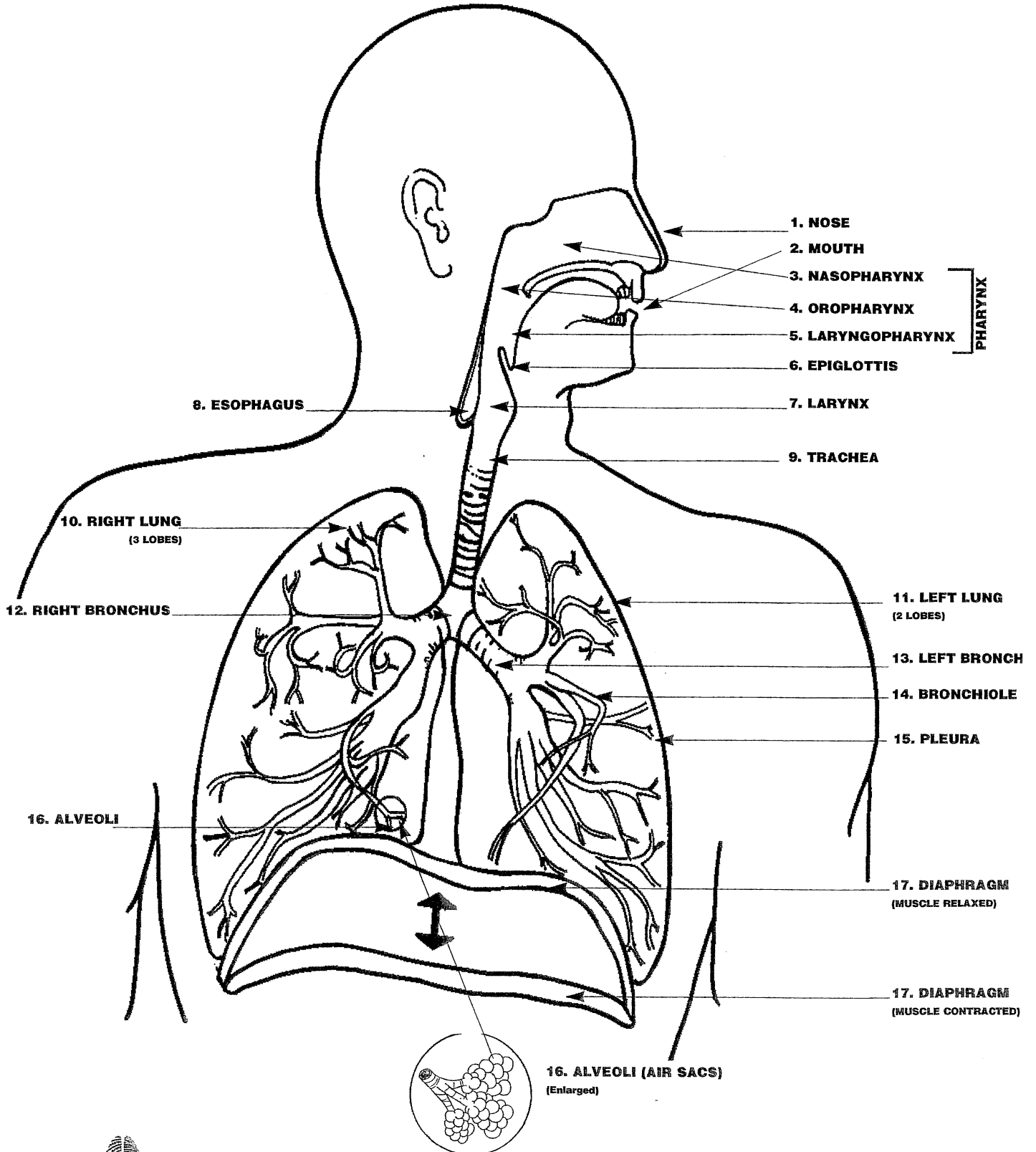
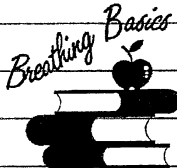




# THE RESPIRATORY SYSTEM

## Diagram and Definitions





American Respiratory Alliance  
of Western Pennsylvania

# THE RESPIRATORY SYSTEM

## Diagram and Definitions

1. The **NOSE** is the specialized structure that serves as an organ of the sense of smell, and as part of the respiratory system, acting as a filter and warmer of inspired air.
2. The **MOUTH** is another entrance for inspired air. However, air inhaled this way is not conditioned as it is through the nose.
3. The **PHARYNX** (throat) is the area between the mouth and nose and the esophagus. The **NASOPHARYNX** is the space above the soft palate to the interior of the nose.
4. The **OROPHARYNX** is the area that lies between the soft palate and the upper edge of the epiglottis.
5. The **LARYNGOPHARYNX** is another part of the pharynx which lies below the upper edge of the epiglottis and opens into the larynx and esophagus.
6. The **EPIGLOTTIS** is the lid-like structure which covers the entrance of the trachea. When closed anything that is swallowed is directed to the esophagus and then to the stomach.
7. The **LARYNX** or "voice box" contains the vocal cords. During speech, air moves passed the vocal cords causing vibration and in turn sound.
8. The **ESOPHAGUS** is the passageway from the mouth and throat to the stomach.
9. The **TRACHEA**, also known as the "windpipe," leads from the pharynx to the lungs.
10. The **RIGHT LUNG** is one of a pair of organs that are responsible for respiration. The right lung is slightly larger and has three lobes (sections): upper, middle, and lower.
11. The **LEFT LUNG** is also responsible for respiration. It is separated from the right lung by the heart and is slightly smaller. The left lung has two lobes (sections): upper and lower.
- 12-13. The **RIGHT and LEFT MAIN BRONCHI** split from the trachea. They branch out to each lobe and continue branching to the smallest of airways— the bronchioles.  
**Note:** The bronchial tubes are lined with **CILIA**, microscopic hairs that beat continuously. Their sweeping motion carries a thin layer of **MUCUS** (a clear, sticky fluid) that traps dirt, debris, and germs, keeping the lungs clean.
14. The **BRONCHIOLES** are the smallest branches of the bronchial tubes.
15. The **PLUERA** is a moist, 2-layer membrane which encloses each lung and lines the chest wall.
16. The **ALVEOLI** are microscopic air sacs where gas exchange occurs through the **CAPILLARIES**, the smallest blood vessels.
17. The **DIAPHRAGM** is the major muscle of respiration. This strong sheet of muscle completely separates the chest cavity from the abdominal cavity. When this muscle contracts, air fills the lungs and when it relaxes, air is exhaled from the lungs.

**Note:** Although the **RIBS** are not depicted, they are bony structures that define and support the chest cavity and provide protection to the lungs.