

NAME _____ LAB TIME/DATE _____

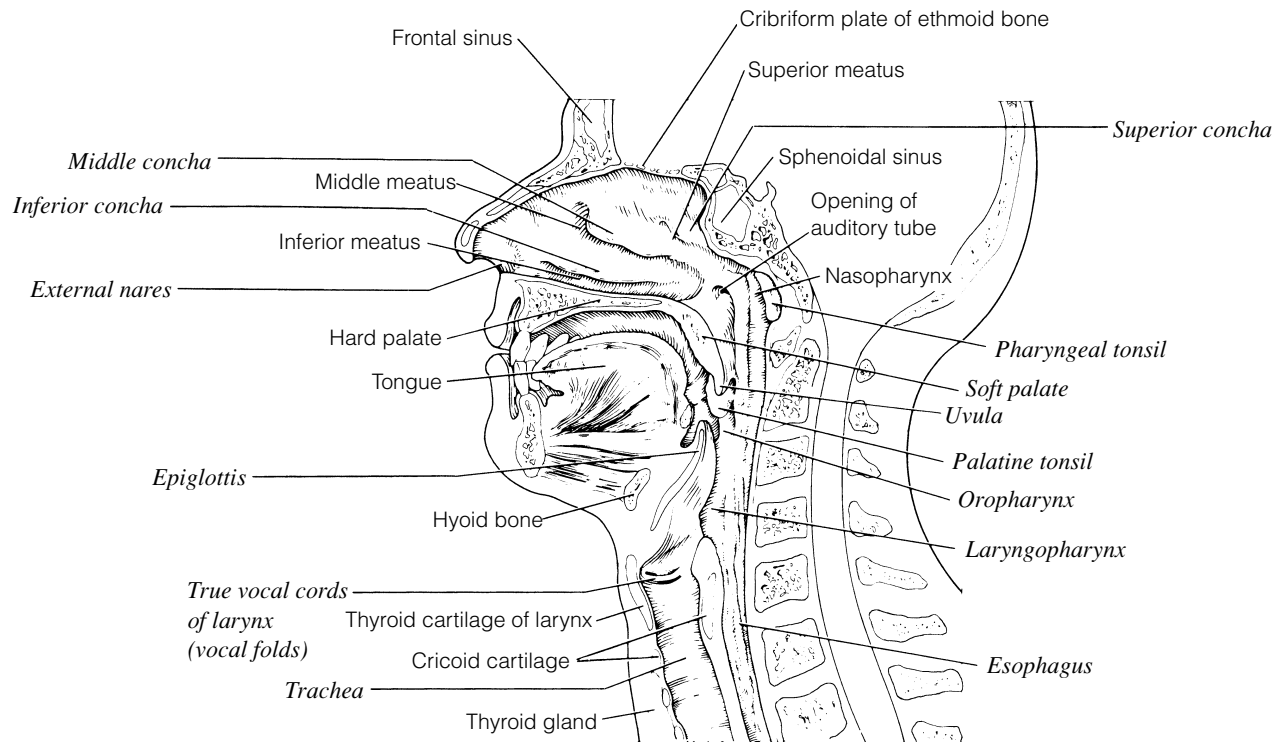
REVIEW SHEET
exercise

36

Anatomy of the Respiratory System

Upper and Lower Respiratory System Structures

1. Complete the labeling of the diagram of the upper respiratory structures (sagittal section).



2. Two pairs of vocal folds are found in the larynx. Which pair are the true vocal cords (superior or inferior)?

Inferior

3. Name the specific cartilages in the larynx that correspond to the following descriptions:

forms the Adam's apple: thyroid

shaped like a signet ring: cricoid

a "lid" for the larynx: epiglottis

vocal cord attachment: arytenoid

4. What is the significance of the fact that the human trachea is reinforced with cartilage rings?

Prevents its collapse during pressure changes occurring during breathing.

Of the fact that the rings are incomplete posteriorly? Allows a food bolus traveling down the posterior esophagus to bulge anteriorly.

5. What is the function of the pleural membranes? Produce a serous fluid that reduces friction during breathing movements and helps to hold the lungs tightly to the thorax wall.

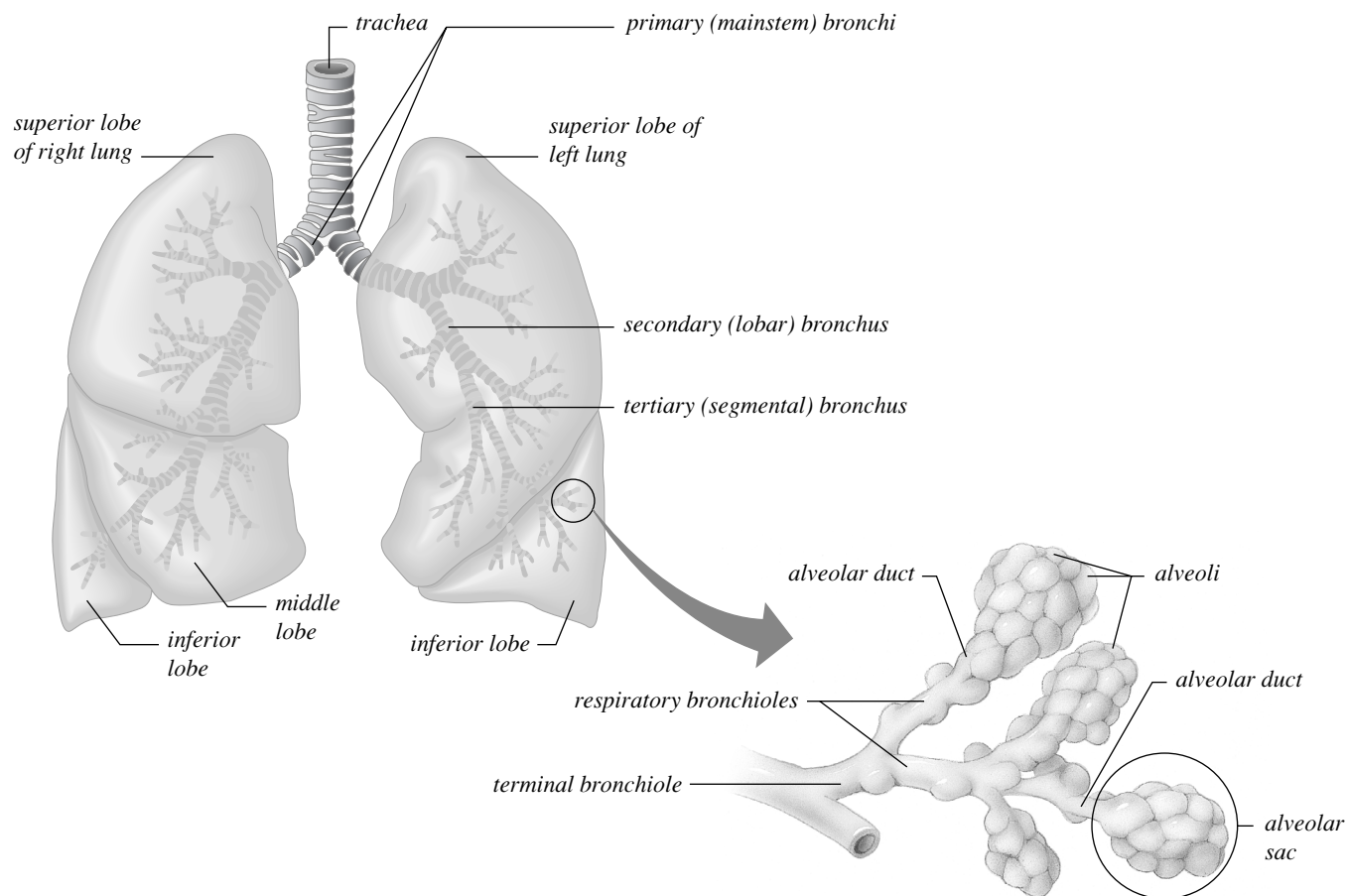
6. Name two functions of the nasal cavity mucosa: Warms and moistens incoming air.

7. The following questions refer to the primary bronchi.

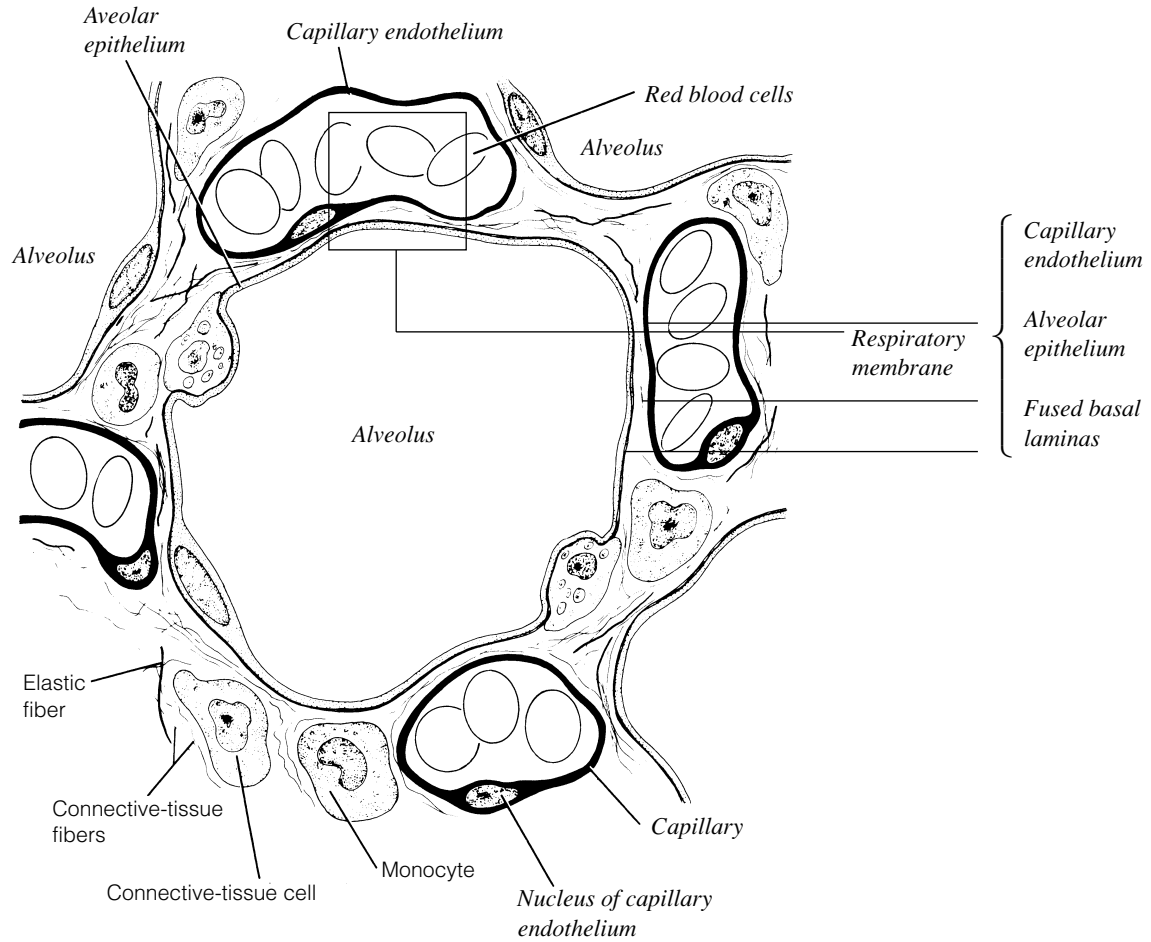
Which is longer? Left Larger in diameter? Right More horizontal? Left

The more common site for lodging of a foreign object that has entered the respiratory passageways? Right

8. Appropriately label all structures provided with leader lines on the diagrams below.



13. On the diagram below identify alveolar epithelium, capillary endothelium, alveoli, and red blood cells. Bracket the respiratory membrane.



Demonstrating Lung Inflation in a Sheep Pluck

14. Does the lung inflate part by part or as a whole, like a balloon? Part by part.
15. What happened when the pressure was released? The lung deflated.
16. What type of tissue ensures this phenomenon? Elastic connective tissue.

Examining Prepared Slides of Lung and Tracheal Tissue

17. The tracheal epithelium is ciliated and has goblet cells. What is the function of each of these modifications?
 Cilia? Sweep (debris-laden) mucus superiorly away from lungs.
 Goblet cells? Produce mucus.
18. The tracheal epithelium is said to be pseudostratified. Why? It looks stratified because the cells extend different distances from the basement membrane; however, it is a simple columnar epithelium.

19. What structural characteristics of the alveoli make them an ideal site for the diffusion of gases?

Thin walls, extremely large surface area.

Why does oxygen move from the alveoli into the pulmonary capillary blood? *Because the partial pressure of oxygen is greater in the alveoli; therefore, it moves according to the laws of diffusion into the pulmonary blood.*

20. If you observed pathological lung sections, what were the responsible conditions and how did the tissue differ from normal lung tissue?

Slide type	Observations
<i>Student data.</i>	<i>Student data.</i>