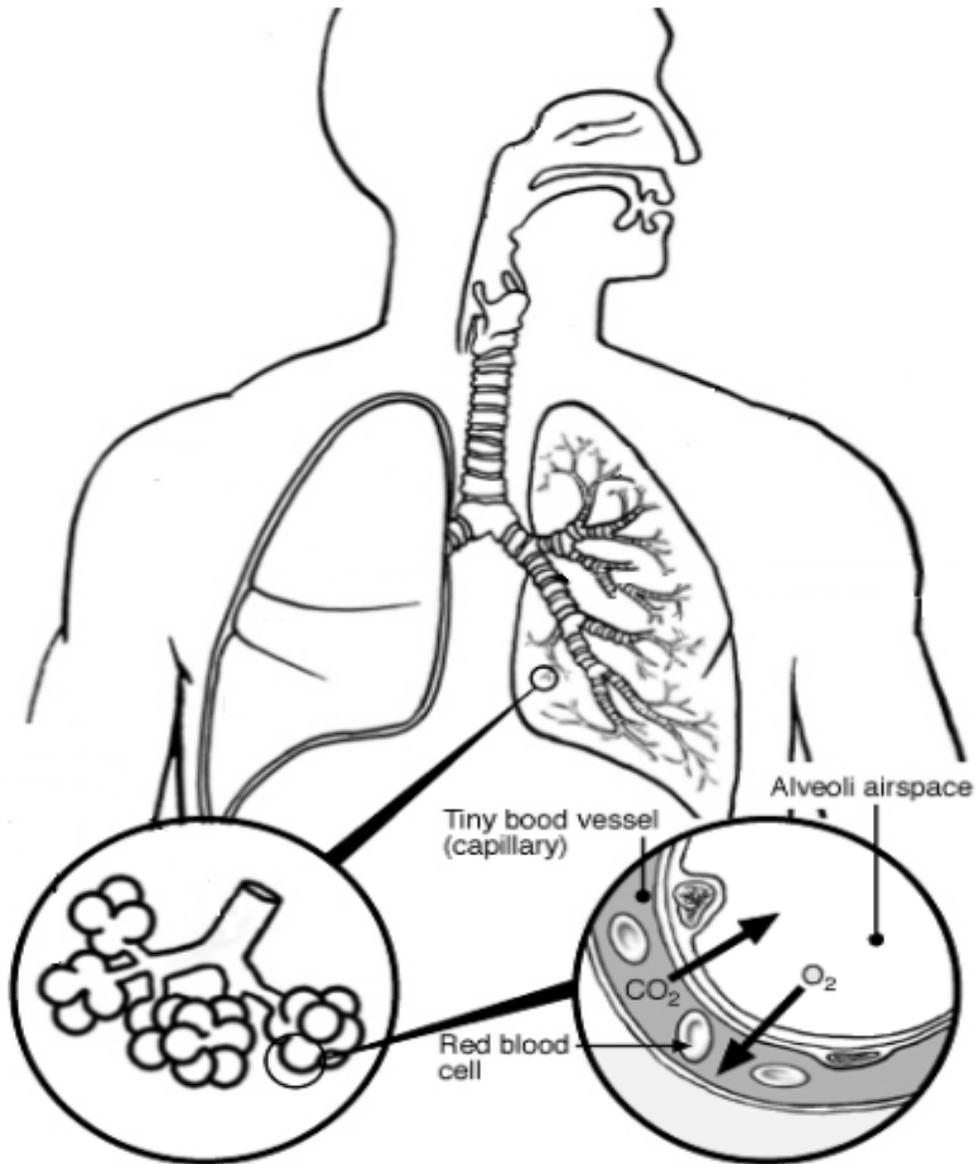


Section 14.1- The Respiratory System
Regular Anatomy

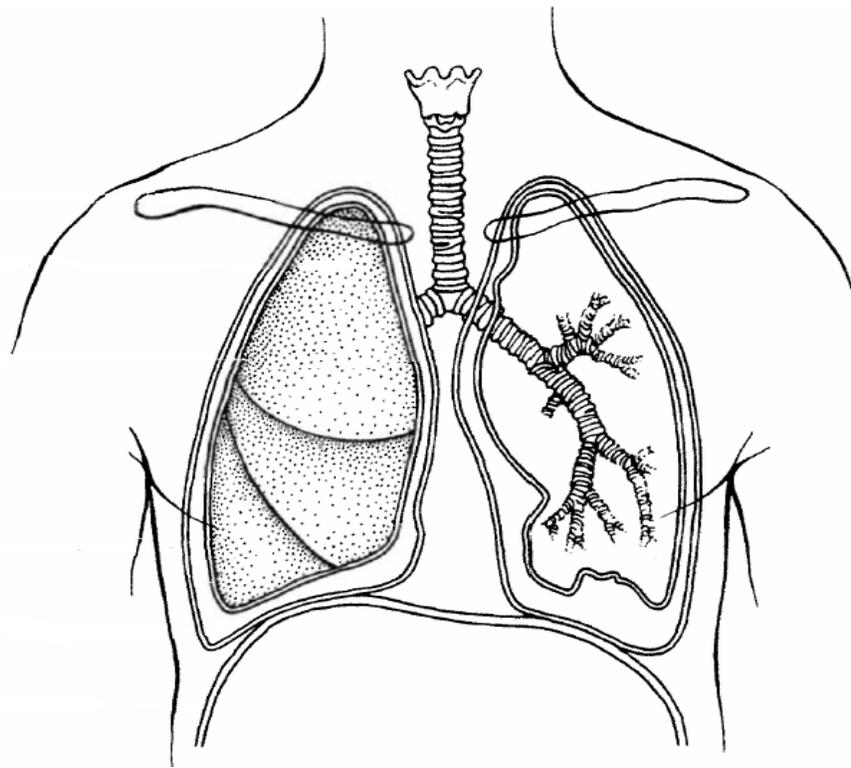
Using different colors and the list below, color and label the different parts of the respiratory system.



- | | | | |
|-----------------------------------|------------------------------|------------------------------------|--|
| <input type="radio"/> Alveoli | <input type="radio"/> Larynx | <input type="radio"/> Nasal cavity | <input type="radio"/> Primary bronchus |
| <input type="radio"/> Bronchioles | <input type="radio"/> Lung | <input type="radio"/> Pharynx | <input type="radio"/> Trachea |

Using the list above (except for Lung), draw a flow map illustrating the order of the organs in which air flows into the body.

Using different colors and the list below, color and label the different parts of the lower respiratory tract.



Bronchioles

Lung

Primary bronchus

Trachea

Diaphragm

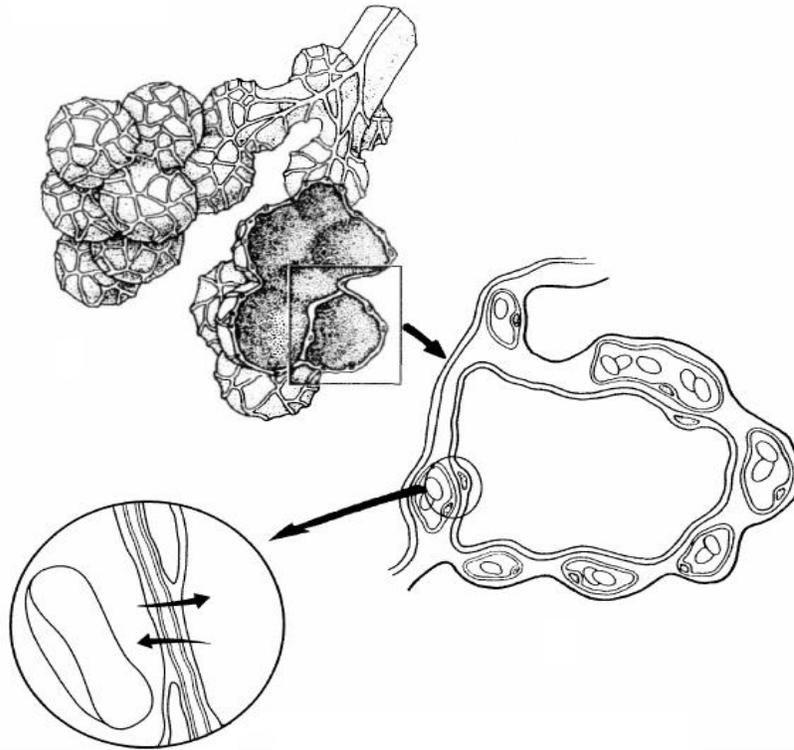
Parietal pleura

Serous cavity

Visceral pleura

1. As air moves from the trachea to the primary bronchi to the bronchioles the tissue composition of each structure changes. The trachea is composed mostly of hyaline cartilage, whereas the bronchioles have no cartilage and are composed mostly of smooth muscle. Explain why the composition of each passageway changes from a rigid tissue to a less rigid tissue.

Using the list below, label the different parts of the alveoli.



alveoli

blood capillary

red blood cell

1. Color half of the blood capillaries blue and the other half red.
2. Color the red blood cells red.
3. On the bottom left corner diagram, label the arrows that represent oxygen (O₂) and carbon dioxide (CO₂).
4. Explain why the tissue for the alveoli and the blood capillary is simple squamous epithelial tissue.

Complete the paragraph below about the air flowing through the respiratory system.

Air first enters the respiratory system through the 1 of the nose. Within the nose are two 2 _____ that are separated by a septum. Air in the nasal cavities is cleaned by two things. The first thing is 3 , which filters the air as it enters through the nostrils. The second thing is 4 , which traps dirt and dust by its stickiness. Also, within the nasal cavity, air is warmed by 5 _____ that creates turbulence, which causes air particles to collide with one another thereby generating heat. From the nasal cavity air passes through the 6 before entering the 7 , which houses the voice box. Within the voice box are 8 _____, which vibrate as air passes by them, creating sound. From the larynx, air then moves into the 9 , before being divided by the left and right 10 _____ that enter the 11 . The bronchi then divide, and continue to divide into smaller passageways called 12 . The composition of the passageways change from 13 to 14 _____ to allow the lungs to expand and contract during breathing. Finally, the bronchioles terminate at the 15 , where gas exchange occurs.

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____
13. _____
14. _____
15. _____