

Biology: Circulatory and Respiratory Systems Review

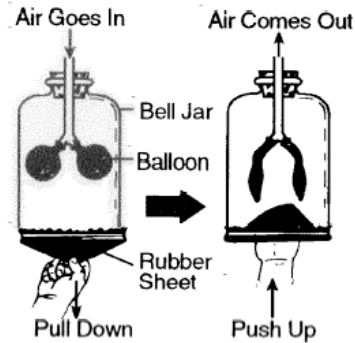
1. Describe why humans breathe more rapidly during exercise than before it.
2. An increased concentration of what substance in the blood stream brings about an increase in the rate of respiration?
3. What are the thin-walled vessels of the circulatory system where most oxygen and carbon dioxide are exchanged?
4. Describe how a diet high in fat content can cause an increased risk of cardiovascular disease.
5. In the bell jar diagram, what does each structure represent?

balloons

rubber sheet

bell jar walls

"Y" shaped tube



6. What happens to the balloons when the rubber sheet is pushed in and out?
7. An inflammation of the alveoli in the lungs due to many years of smoking is called
8. What is a stroke and what causes them?
9. What is a heart attack, and what causes them?
10. What organ is primarily responsible for the exchange of oxygen and carbon dioxide between the circulatory system and the atmosphere?
11. What are the sack-like structures at the inner end of the lungs called?
12. What two gases are carried by the circulatory system?
13. How does an increase in the breathing rate affect the concentration of each of the two gases?
14. What is hemoglobin and what does it do?
15. Which condition would most directly result in the production of lactic acid by some cells of the human body?
16. Describe the direction of flow of inhaled air from the nasal cavity to the alveoli.
17. Identify the respiratory system structure below, and describe it's function.

