

Chapter 13 Review Questions

1. What is the difference between tidal volume and residual volume?
2. How are vital capacity and total lung capacity related? (*Compare and contrast*).
3. What substances form carbonic acid?
4. How is carbonic anhydrase associated with carbonic acid?
5. Difference between parietal and visceral pleura.
6. How do the locations of the chemosensitive and chemoreceptor areas differ?
7. What are the functions of the chemosensitive and chemoreceptor areas?
8. Where is the respiratory center located and what is its general function?
9. What two specialized areas control the rate and rhythm of breathing?
10. Explain how surface tension aids in expanding the lungs during inspiration.
11. What chemical factors affect breathing? How?
12. Describe the three ways that carbon dioxide can be carried from the body cells to the lungs.
13. Describe how oxygen is transported from the lungs.
14. What is partial pressure?
15. How can you figure out the partial pressure of gases in the atmosphere?
16. Describe internal respiration.
17. Describe external respiration.
18. What are the principal inspiration muscles?
19. What causes expiration?
20. Describe the structure and function of the glottis and epiglottis.
21. What is surfactant and why is it important?
22. What is the purpose of hyperventilating before swimming?
23. Why should you not hyperventilate before swimming?