

## Study Guide Chapter 4

1. What are the basic building blocks of our bodies? **Cells**
2. Similar cells organized to perform specific functions are \_\_\_\_\_.  
**Tissues**
3. What are the four basic tissue types? **Epithelial, connective, muscle, nervous**
4. Which tissue type is like plastic wrap? **epithelial**
5. Epithelial tissue is classified based on cell \_\_\_\_\_ and \_\_\_\_\_. **Shape and arrangement**
6. What are the four cell shapes in epithelial tissue? List and explain each. (**squamous – flat, cuboidal-cube, columnar-column-like, transitional – mixed up**)
7. What are the 3 possible cell arrangements in epithelial tissues? List and explain each. (**simple – single layer, stratified-cells several layers deep, pseudostratified – looks layered but not**)
8. Define the term membrane. **Sheet-like structures that perform special functions**
9. List the 3 types of epithelial membranes. **Cutaneous, serous, mucous)**
10. Which epithelial membrane involves two separate layers? What are those layers? **Serous membranes consist of two layers, the parietal and the visceral.**
11. What is the difference in the parietal and visceral layers? **Parietal layer lines the walls of body cavities, visceral layers wrap around individual organs**
12. How are mucous and mucus related? **Mucous is the membrane that lines openings, and mucus is the lubricant produced by the membrane**
13. What is the most common type of tissue found in the body?  
**Connective**
14. List 3 examples of connective tissue. **Ligaments, tendons, bones, cartilage, adipose (fat), areolar, blood, lymph**
15. Which membranes are found in relation to connective tissue?  
**Synovial membranes**
16. What are the 3 types of muscle tissues? **Skeletal, cardiac, smooth**
17. Why is skeletal muscle often called “striated”? **because of its striped appearance**
18. What is skeletal muscle usually attached to? **Bones**
19. Define voluntary action and give an example of a voluntary action skeletal muscle. **Voluntary means consciously controlled contraction and relaxation. Examples are: triceps, biceps, lats, quads, glutes, etc....**
20. Where is cardiac muscle found? **Walls of the heart**
21. Why do cardiac muscles result in a more efficient contraction?  
**Because of the way they tightly interlock together**
22. Does cardiac muscle perform voluntary action or involuntary?  
**Involuntary**
23. What two types of cells does nervous tissue contain? What are their functions? **Neurons – conductors of information, glia- help hold neurons in place (glia is the glue-a) 😊**
24. What are the two parts of the neuron? Explain. **Dendrites – branch like are that receives sensory info, axon- the trunk-like structure that send signals**
25. What is the name of the insulating layer found inside neurons?  
**Myelin sheath**
26. Which gland is found both in the endocrine system and the lymphatic/immune system? **Thymus gland**
27. What chemical does the urinary system remove from the body via urine? **Nitrogen**
28. This condition is also known as blood poisoning. **Septicemia**
29. What does MODS stand for? **Multiple organ dysfunction syndrome**
30. List each body system. Write at least 2 organs associated with system and then tell me the function of each system. **See your human body chart or chapter 4 in your book for the answers.**
31. What three body systems help to regulate water in the body?  
**Circulatory, lymphatic/immune, and urinary**
32. What is the function of a sebaceous gland and what system is it found in? **to produce oil, integumentary**