

Review Questions  
**Lecture 5**

1. List and describe the four types of vertebrate tissue.
2. What is the difference between the apical and basal layers of an epithelial cell?
3. Define the terms used to describe epithelial layer types and cell shapes.
4. What does the structure of epithelium indicate about the tissue?
5. Describe the type and function of epithelium in the following: small intestine, blood vessel, skin, trachea (*be sure to understand the connection between structure and function*)
6. Are all the cell types within a specific epithelium the same? (In other words, is there only one cell type within the intestinal epithelium, or only one cell type within the skin epithelium, etc)
7. What are the major cell types of the gut epithelium & what are their functions?

8. What type of cell junctions do the gut, tracheal epithelium, and skin have? Why is each type of junction important for each tissue?
  
9. What would happen if tracheal epithelium lost their cilia?
  
10. What type of cell junctions do blood vessels have? Why not tight?
  
11. Is barrier protection the only function of the skin? Explain your answer.
  
12. What is the difference between dense and loose connective tissue?
  
13. What is the most common connective tissue cell type?
  
14. What type of connective tissue does cartilage form (dense or loose)? What is the function of chondrocytes within cartilage? Why is this function so critical? What is the function of cartilage?
  
15. What type of connective tissue does bone form? What is the function of bone?
  
16. List the major cell types of bone along with their function.

17. What would happen if the balance between osteoblasts and osteoclasts were disrupted? (i.e., What would happen to bone if there were too many osteoblasts or too many osteoclasts?)
  
18. What type of connective tissue does adipose form? What is the function of adipose? What cell type are adipocytes derived from?
  
19. How is actin and myosin important to muscle tissue?
  
20. Describe the 4 types of muscle cells.
  
21. What cells make-up nervous tissue? What are the functions of each cell type, and what are the general functions of nervous tissue?
  
22. What is a nerve?
  
23. What is myelin? What would happen to a neuron if it was de-myelinated?