

Chp. 5 Study Guide/Review
Anatomy/Physiology

This Study Guide is designed to help direct you to the main learning objectives in this chapter.

Objectives

- Describe the general characteristics & functions of epithelial tissues.
- Name the types and identify an organ in which each is found .
- Explain how glands can be classified.
- Describe the general characteristics of connective tissue.
- Describe the major cell types & fibers of connective tissue.
- Describe the major function of the types of connective tissues.
- Distinguish between the 3 types of muscle tissue.
- Describe the general characteristics & functions of nerve tissue as well as bones.

Questions:

1. Name the categories/types of tissues. Define *tissue*.
2. What are characteristics of epithelial tissues? Explain how their form relates to their function.
3. Know the functions & location of each type of epithelial tissue. What are goblet cells? Where are they found?
4. Be able to recognize epithelial tissues by both a picture and/or a description. Be able to identify in lab.
5. What are the 2 types of glandular epithelium? Explain how to identify which is which.
6. What substance is secreted by mucous cells? What protein makes it “mucousy”?
7. What are the 2 types of connective tissue cells?
8. What are fibroblasts? What is their function ? What substances are released by mast cells?
9. List each type of connective tissue fibers. Identify their location & function & appearance. Be able to identify in lab.
10. Which dense connective tissue is sometimes called ‘white’? Which is called ‘yellow’?
11. What is the *extracellular matrix*?
13. Complete: Ligaments connect _____ to _____. Tendons connect _____ to _____.
14. Which type of connective tissue is composed of chondrocytes? Name & describe the 3 types. Be able to recognize in lab.
15. Tear one of these & due to its lack of direct blood supply and slow cellular reproduction you’ll be “on the bench” for the rest of the season!
16. This tissue is found underneath the skin & in spaces between the muscles. What is it?
17. What is the meaning of the suffixes: -blasts, -clasts, -cytes?
18. These guys are the shock absorbers for your bones. Found in the knee, spine & pelvis.
19. Describe how bone cells are organized in bone tissue.
20. Describe the composition of blood. What is its function?
21. Describe the general characteristics of muscles and distinguish between skeletal (striated), smooth and cardiac muscle tissues.
22. What are the general characteristics of nervous tissues? b) what is the difference between neurons & neuroglial cells?

23. *** *Review your colorings. You may want to put in extra time in lab if you are having trouble identifying the tissues under the microscope. Be sure to review & study your labs!!*

Medical Connection

1. Many products on the market use a lack of consumer knowledge. One of these is the exercise product manufacturers. Products like the “AbBuster”, etc. tell the consumer they can target their abs to burn fat. Using your knowledge of metabolism and tissues, explain what is wrong with this idea and how do they get away with it (i.e. what *does* it do that comes close to their claims?)
2. Another area is that of beauty products. Manufacturers use collagen & elastin in their ingredients to attract consumers. What tissues are those two proteins part of and how might women be misled by their advertising?
3. Joints in the shoulder, elbow & knee contain a fair amount of cartilage. Explain why injuries to these areas tend to be serious and take a long time to heal.

There will be 10 – 12 slides that you will need to identify as well. Stop in before or after school for open lab time to practice.