

Histology

Chapter Five Study Guide

1. What is histology?
2. What are the four types of tissue?
3. What criteria is used to describe the structure and function of the four tissue types? (very important / multiple test questions here!)
4. What is the difference between cellular volume and matrix volume in epithelial and connective tissues? Significance?
5. What other terms are used to describe matrix?
6. Where may you find non-keratinized and keratinized epithelial cells?
7. What are the three different types of protein fibers (i.e. 3) in the connective tissue matrix? What type of CT cell makes these fibers?
8. What are proteoglycans (PG)? Where are they located?
9. What is hyaluronic acid? What is its nickname?
10. How are connective tissue collagen fibers orientated in tendons and ligaments?
11. How are connective tissue collagen fibers orientated in a capsule around organs or in the dermis?
12. What type of tissue is fat? Blood? Bone? Cartilage? Why are these similar tissue? (i.e. common feature)
13. What CT cells store fat?
14. What are the three different types of cartilage? Examples and locations.
15. What is the difference between spongy and compact bone? Which one is harder?
16. What is an osteon?
17. Identify the following structures of an osteon: osteocyte, osteoblast, osteoclast, lacunae, canalicul, lamellae, periosteum, endosteum, and central canalm.
18. What is the function of nervous tissue?
19. How is nervous tissue characterized?
20. What are the three muscle types? Characteristics of each muscle type?
21. What is a cell junction? Three types and functions?
22. What is a gland?
23. What tissue type is commonly associated with glands?
24. What is the difference between a secretion and an excretion?
25. What is the difference between an endocrine and exocrine glands?
26. Glands can be multicellular or unicellular structures. What is an example of a unicellular gland that looks like a “wine glass”? Where are they located?
27. What is the difference between a merocrine gland, holocrine gland, and apocrine gland? Examples?
28. Define the following terms: atrophy / hypertrophy/ hyperplasia / metaplasia / neoplasia / dysplasia.
29. What term describes how the epithelial lining of the trachea changes after chronic cigarette smoking?
30. What is regeneration?
31. What is fibrosis?
32. What are the stages in healing a skin wound?
33. Where are these membranes located? (mucous, serous, synovial, cutaneous).

34. What is inflammation?

35. How is tissue changed by inflammation? What is added? Significance over time?