

Classification of Tissues

Tissue Structure and Function: General Review

1. Define *tissue*: _____

2. Use the key choices to identify the major tissue types described below.

Key: connective epithelium muscular nervous

- _____ 1. lines body cavities and covers the body's external surface
- _____ 2. pumps blood, flushes urine out of the body, allows one to swing a bat
- _____ 3. transmits waves of excitation
- _____ 4. anchors and packages body organs
- _____ 5. cells may absorb, protect, or form a filtering membrane
- _____ 6. most involved in regulating body functions quickly
- _____ 7. major function is to contract
- _____ 8. the most durable tissue type
- _____ 9. abundant nonliving extracellular matrix
- _____ 10. forms nerves

Epithelial Tissue

1. On what bases are epithelial tissues classified? _____

2. How is the function of an epithelium reflected in its arrangement? _____

3. Where is ciliated epithelium found? _____
What role does it play? _____

4. Transitional epithelium is actually stratified squamous epithelium, but there is something special about it.

How does it differ structurally from other stratified squamous epithelia? _____

How does this reflect its function in the body? _____

5. Respond to the following with the key choices.

Key:	pseudostratified ciliated columnar	simple cuboidal	stratified squamous
	simple columnar	simple squamous	transitional

_____ 1. best suited for areas subject to friction

_____ 2. propels substances across its surface

_____ 3. most suited for rapid diffusion

_____ 4. tubules of the kidney

_____ 5. lines much of the respiratory tract

_____ 6. stretches

_____ 7. lines the small and large intestines

Connective Tissue

1. What is the makeup of the matrix in connective tissues? _____

2. How are the functions of connective tissue reflected in its structure? _____

3. Using the key, choose the best response to identify the connective tissues described below.

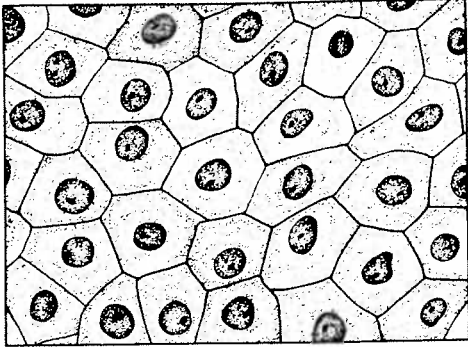
Key: adipose connective tissue
 areolar connective tissue
 dense connective tissue

 reticular connective tissue
 hyaline cartilage
 osseous tissue

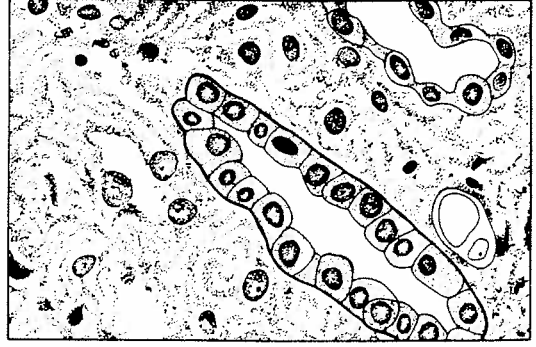
- _____ 1. attaches bones to bones and muscles to bones
- _____ 2. forms your hip bone
- _____ 3. composes basement membranes; a soft packaging tissue with a jellylike matrix
- _____ 4. forms the larynx and the costal cartilages of the ribs
- _____ 5. firm matrix heavily invaded with fibers; appears glassy and smooth
- _____ 6. matrix hard; provides levers for muscles to act on
- _____ 7. insulates against heat loss; provides reserve fuel

Identify the tissue as either Epithelial, Connective, Muscle or Nervous. Then identify the tissue by its specific name.

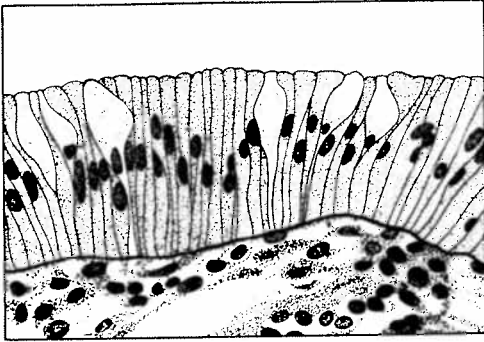
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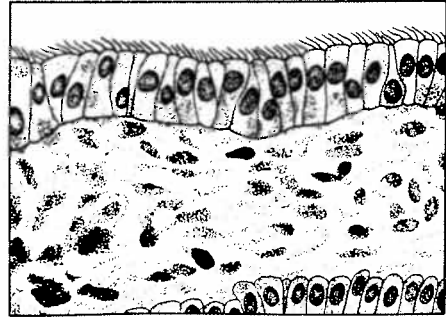
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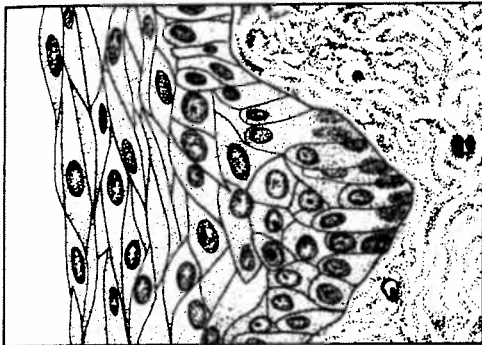
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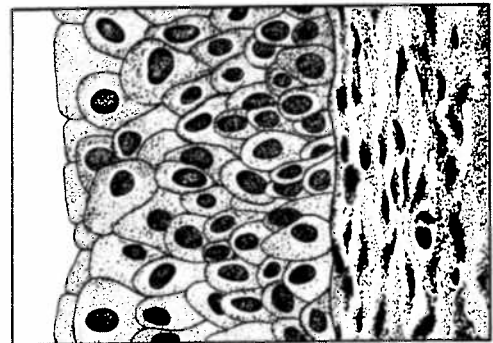
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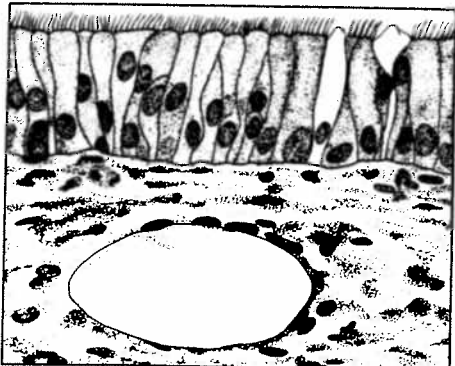
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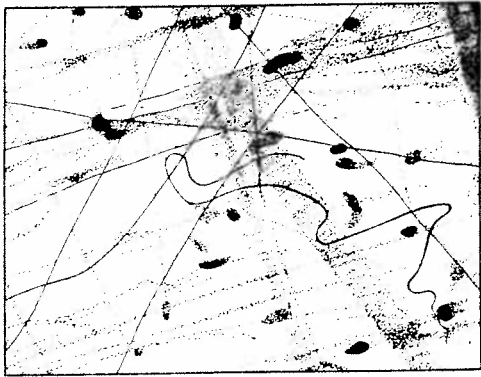
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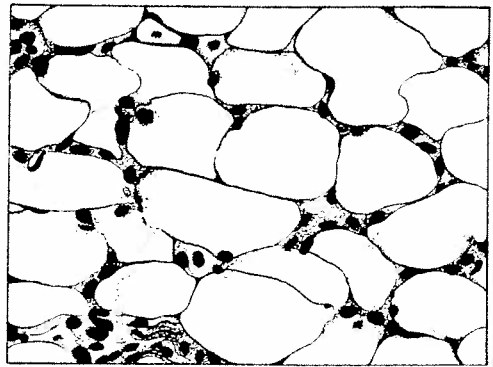
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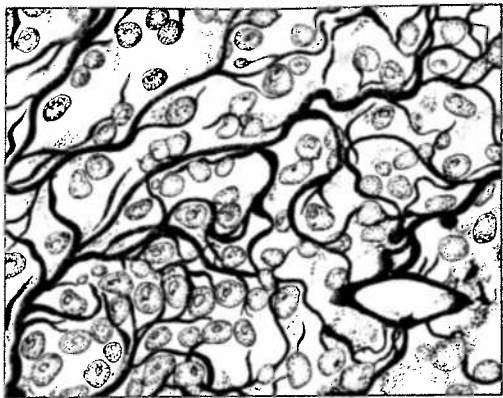
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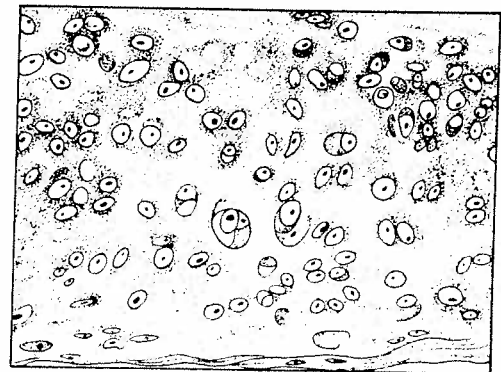
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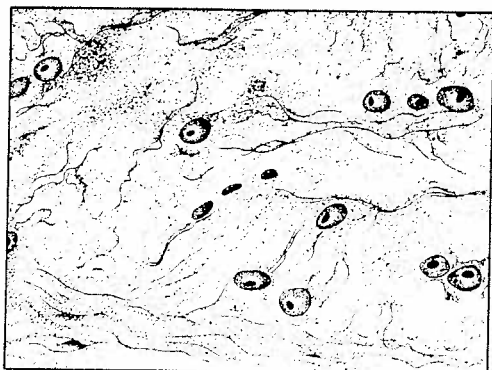
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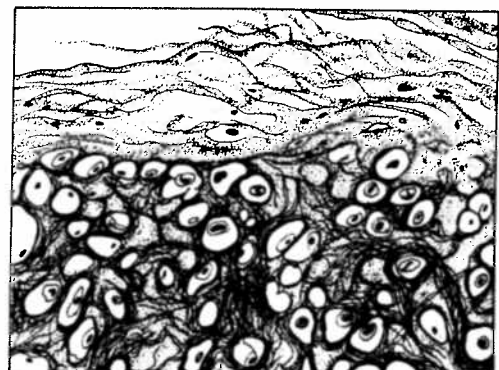
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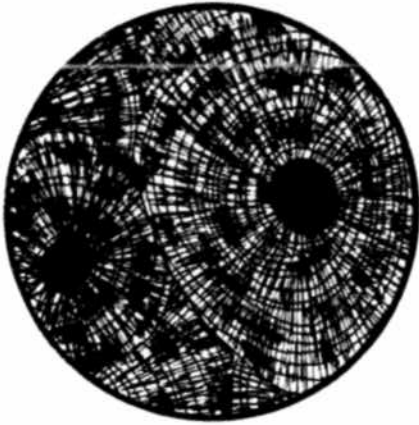


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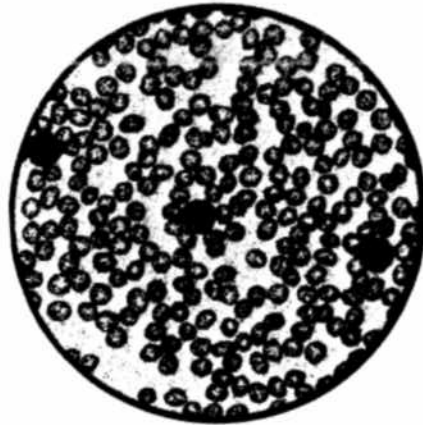


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Muscle Tissue

The terms and phrases in the key relate to the muscle tissues. For each of the three muscle tissues, select the terms or phrases that characterize it, and write the corresponding letter of each term on the answer line.

- | | | | |
|------|-------------------------|----------------------|-----------------------------------|
| Key: | a. striated | f. voluntary | k. attached to bones |
| | b. branching cells | g. involuntary | l. intercalated discs |
| | c. spindle-shaped cells | h. one nucleus | m. in wall of bladder and stomach |
| | d. cylindrical cells | i. many nuclei | n. moves limbs, produces smiles |
| | e. active during birth | j. forms heart walls | o. arranged in sheets |

Skeletal muscle: _____

Cardiac muscle: _____

Smooth muscle: _____

Nervous Tissue

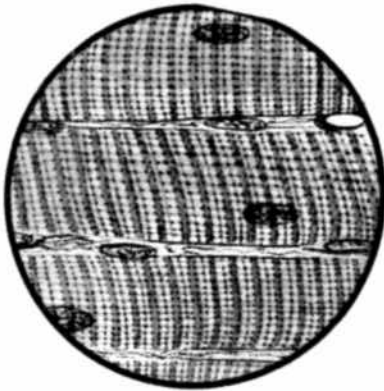
1. In what ways are nerve cells similar to other cells? _____

How are they different? _____

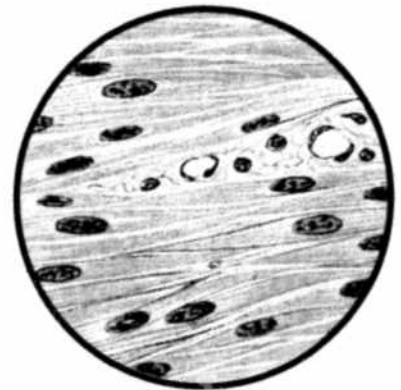
How does the special structure of a neuron relate to its function? _____

Identify the tissue as either Epithelial, Connective, Muscle or Nervous. Then identify the tissue by its specific name.

Type:
Name:



Type:
Name:



Type:
Name:



Type:
Name:

