BODY TISSUES

Twelve tissue types are diagrammed in Figure 3-9. Identify each tissue type by inserting the correct name in the blank below it on the diagram. Select different colors for the following structures and use them to color the coding circles and corresponding structures in the diagrams.

- Epithelial cells
- Nerve cells
- Muscle cells
- Matrix (Where found, matrix should be colored differently from the living cells of that tissue type. Be careful; this may not be as easy as it seems!)

Figure 3-9, A-F
Describe briefly how the particular structure of a neuron relates to its function in the body. **Neuron has long cytoplasmic extensions that promote its ability to transmit impulses over long distances within the body.**
Using the key choices, correctly identify the major tissue types described. Enter the appropriate letter or tissue type term in the answer blanks.

**Key Choices**

A. Connective  
B. Epithelium  
C. Muscle  
D. Nervous

1. Forms mucous, serous, and epidermal membranes  
2. Allows for organ movements within the body  
3. Transmits electrochemical impulses  
4. Supports body organs  
5. Cells of this tissue may absorb and/or secrete substances  
6. Basis of the major controlling system of the body  
7. The cells of this tissue shorten to exert force  
8. Forms hormones  
9. Packages and protects body organs  
10. Characterized by having large amounts of nonliving matrix  
11. Allows you to smile, grasp, swim, ski, and shoot an arrow  
12. Most widely distributed tissue type in the body  
13. Forms the brain and spinal cord

Using the key choices, identify the following specific type(s) of epithelial tissue. Enter the appropriate letter or classification term in the answer blanks.

**Key Choices**

A. Pseudostratified columnar (ciliated)  
B. Simple columnar  
C. Simple cuboidal  
D. Simple squamous  
E. Stratified squamous  
F. Transitional

1. Lines the esophagus and forms the skin epidermis  
2. Forms the lining of the stomach and small intestine  
3. Best suited for areas subjected to friction  
4. Lines much of the respiratory tract  
5. Propels substances (e.g., mucus) across its surface  
6. Found in the bladder lining; peculiar cells that slide over one another  
7. Forms thin serous membranes; a single layer of flattened cells
1. A or adventitia.
2. C or connective tissue.
3. D or dense fibrous.
5. Blood.
6. Collagen.
7. Granulation.
8. Regeneration.
9. Dense connective tissue.
10. Cardiac.
11. Cardiac.
12. Smooth, cardiac.
13. Smooth, cardiac.
14. Smooth, cardiac.
15. Smooth, cardiac.
16. Smooth, cardiac.

2. A or adipose.
3. B or dense fibrous.
4. C or connective tissue.
5. F or fibrous cartilage.
6. D or dense connective tissue.
7. E or adipose.
8. F or fibrous cartilage.
9. D or dense connective tissue.
10. Cardiac.