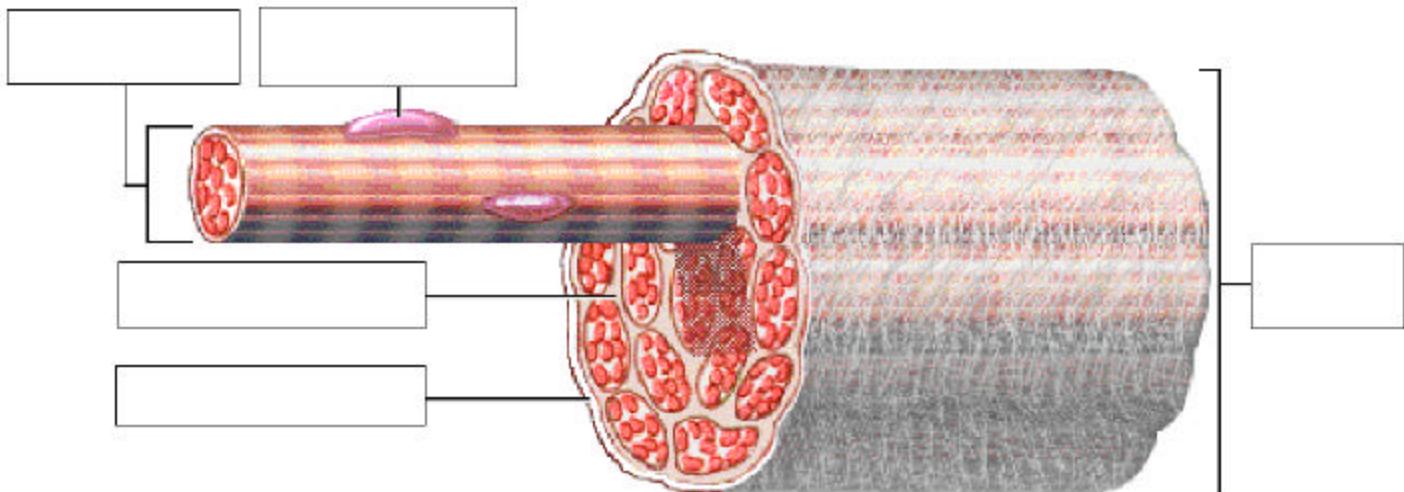


Study Questions on Anatomy Review: Skeletal Muscle Tissue

1. (Page 1.) What is the main function of skeletal muscles?
2. (Page 3.) List the three types of contractile cells of the body.
3. (Page 3.) Match the following types of contractile cells to their shape (branching, elongated, spindle-shaped):
 - _____ a. Skeletal muscle cells
 - _____ b. Cardiac muscle cells
 - _____ c. Smooth muscle cells
4. (Page 3.) Match the following types of contractile cells to the characteristics of their nuclei and presence or absence of striations:

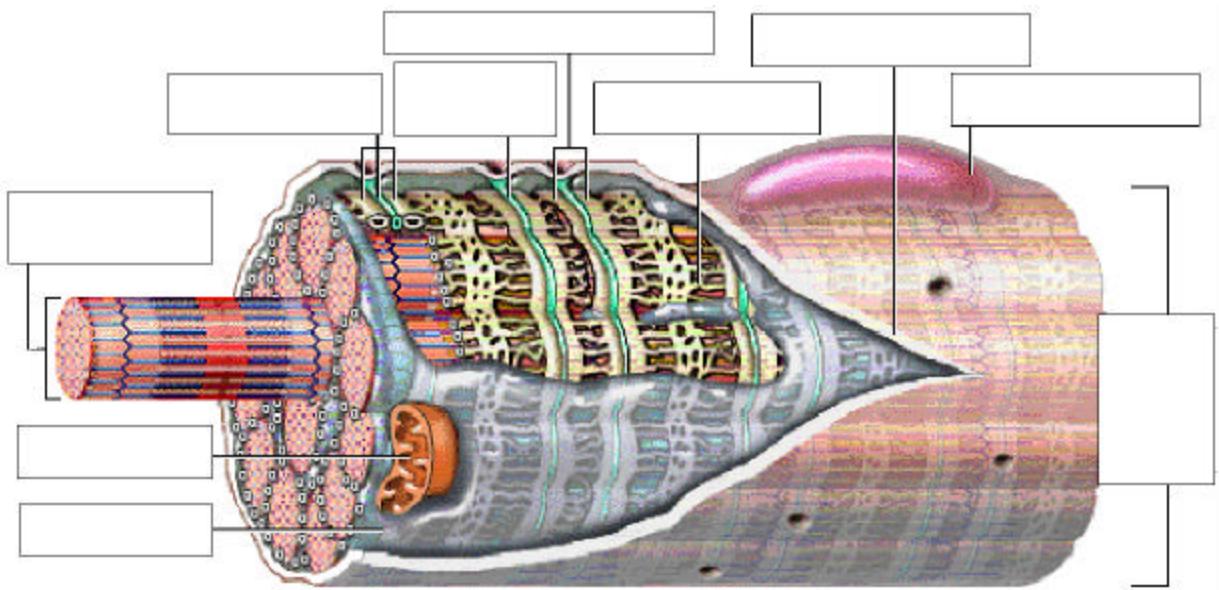
Cardiac Muscle Cells	Smooth Muscle Cells	Skeletal Muscle Cells
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 - _____ a. presence of visible striations & single, centrally-located nuclei
 - _____ b. presence of visible striations & multiple peripheral nuclei
 - _____ c. absence of visible striations & single, centrally-located nuclei
5. (Page 4.) What is the name of the structure that attaches skeletal muscles to bones?
6. (Page 5.) Bundles of skeletal muscle cells are called _____.
7. (Page 5.) The connective tissue which immediately surrounds a muscle is called _____ and the connective tissue around the fascicles is called _____.
8. (Page 6.) What is the function of endomysium?



9. (Page 7.) Match these terms to their description:

- | | | |
|------------------------|-------|---|
| Triad | _____ | a. Sac-like regions of the sarcoplasmic reticulum that contain calcium ions. |
| T tubules | _____ | b. Sites of ATP synthesis. |
| Terminal cisternae | _____ | c. Plasma membrane of the muscle cell. |
| Sarcolemma | _____ | d. Alternative name for skeletal muscle cells. |
| Muscle fibers | _____ | e. Interconnecting tubules of endoplasmic reticulum that surround each myofibril. |
| Mitochondria | _____ | f. A group of one T tubule lying between two adjacent terminal cisternae. |
| Sarcoplasmic reticulum | _____ | g. Invaginations of the sarcolemma that project deep into the cell. |
| Myofibril | _____ | h. Contains the contractile filaments within the skeletal muscle cell. |



10. (Page 8.) What are the names for the two types of filament in a myofibril?

11. (Page 9.) What creates the skeletal muscle cell's striated appearance?

12. (Page 9.) Match the following:

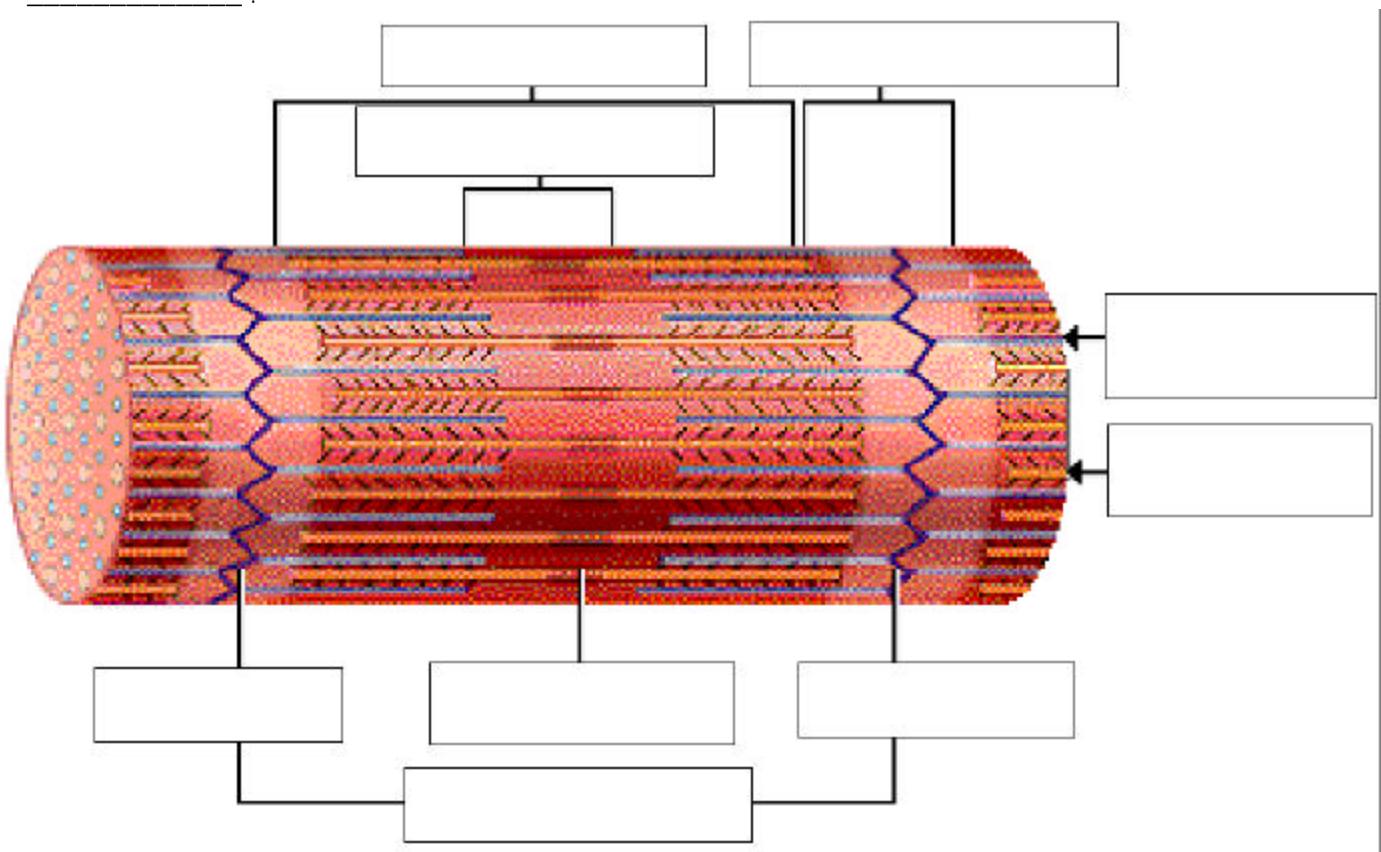
A band I band H zone

- _____ a. Contains only thin filaments.
_____ b. Contains only thick filaments.
_____ c. Contains both thin and thick filaments.

13. (Page 9.) Perpendicular to the myofilaments are the Z lines and the M lines. The Z lines connect the

_____ filaments and the M lines connect the _____ filaments.

14. (Page 9.) The region of the myofibril between two Z lines that is the contractile unit of a muscle cell is called a



15. (Page 10.) Arrange the following from smallest structure to largest structure:

Muscle cell or muscle fiber

Fascicle

Myofilaments

Whole skeletal muscle

Myofibril