

Muscles and Muscle Tissue

Skeletal Muscle Anatomy	The Sliding Filament Theory	Muscle Contraction	Muscle Metabolism	Smooth Muscle
<u>\$100</u>	<u>\$100</u>	<u>\$100</u>	<u>\$100</u>	<u>\$100</u>
<u>\$200</u>	<u>\$200</u>	<u>\$200</u>	<u>\$200</u>	<u>\$200</u>
<u>\$300</u>	<u>\$300</u>	<u>\$300</u>	<u>\$300</u>	<u>\$300</u>
<u>\$400</u>	<u>\$400</u>	<u>\$400</u>	<u>\$400</u>	<u>\$400</u>
<u>\$500</u>	<u>\$500</u>	<u>\$500</u>	<u>\$500</u>	<u>\$500</u>

FINAL ROUND

Skeletal Muscle Anatomy:
\$100 Question

The connective tissue sheath that covers each individual muscle fiber is the _____.

- a. endomysium
- b. epimysium
- c. perimysium
- d. sarcolemma

ANSWER

BACK TO GAME

Skeletal Muscle Anatomy:
\$100 Answer

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BACK TO GAME

Skeletal Muscle Anatomy:
\$200 Question

A sheetlike extension of the epimysium is called a(n) _____.

- a. aponeurosis
- b. fascicle
- c. sarcoplasmic reticulum
- d. tendon

ANSWER

BACK TO GAME

Skeletal Muscle Anatomy:
\$200 Answer

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[BACK TO GAME](#)

Skeletal Muscle Anatomy:
\$300 Question

Thick filaments are found in the _____
of the sarcomere.

- a. Z disc
- b. I band
- c. A band
- d. All of the above contain
thick filaments.

ANSWER

BACK TO GAME

Skeletal Muscle Anatomy:
\$300 Answer

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of the sarcomere.

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BACK TO GAME

Skeletal Muscle Anatomy:
\$400 Question

In a resting muscle cell the myosin binding sites are blocked by _____.

- a. actin
- b. troponin
- c. titin
- d. tropomyosin

ANSWER

BACK TO GAME

Skeletal Muscle Anatomy:
\$400 Answer

In a resting muscle cell the myosin binding sites are blocked by _____.

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BACK TO GAME

Skeletal Muscle Anatomy:
\$500 Question

Tubules are an extension of the

_____.

- a. sarcomere
- b. sarcoplasmic reticulum
- c. sarcolemma
- d. endomysium

ANSWER

BACK TO GAME

Skeletal Muscle Anatomy:
\$500 Answer

Tubules are an extension of the

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BACK TO GAME

The Sliding Filament Theory:
\$100 Question

When a muscle cell is at rest, most of the intracellular calcium is found stored in the _____.

- a. sarcoplasm
- b. T tubule
- c. sarcoplasmic reticulum
- d. myosin heads

ANSWER

BACK TO GAME

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BACK TO GAME

The Sliding Filament Theory:
\$200 Question

Calcium ions will bind to _____ when present in the sarcoplasm.

- a. myosin heads
- b. ATP
- c. myosin binding sites
- d. troponin

ANSWER

BACK TO GAME

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[BACK TO GAME](#)

The Sliding Filament Theory:
\$300 Question

What substance must bind to myosin heads in order for the heads to detach from the thin filaments?

- a. Calcium
- b. ATP
- c. Troponin
- d. Sodium

ANSWER

BACK TO GAME

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[BACK TO GAME](#)

The Sliding Filament Theory:
\$400 Question

Calcium is released from the terminal cisternae in response to _____.

- a. ATP
- b. calcium pumps
- c. an action potential
- d. troponin

ANSWER

BACK TO GAME

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BACK TO GAME

The Sliding Filament Theory:
\$500 Question

How does calcium reenter the terminal cisternae after muscle contraction is finished?

- a. Diffusion
- b. Active transport
- c. Filtration
- d. Endocytosis

ANSWER

BACK TO GAME

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[BACK TO GAME](#)

Muscle Contraction:
\$100 Question

A single contraction in response to a single threshold stimulus is defined as _____.

- a. summation
- b. tetany
- c. treppe
- d. a twitch

ANSWER

BACK TO GAME

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BACK TO GAME

Muscle Contraction:
\$200 Question

The force exerted by a contracting muscle is _____.

- a. muscle summation
- b. muscle twitch
- c. muscle tension
- d. muscle load

ANSWER

BACK TO GAME

Muscle Contraction:
\$200 Answer

The force exerted by a contracting muscle is _____.

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[BACK TO GAME](#)

Muscle Contraction:
\$300 Question

The time that elapses between the stimulation of a muscle and the contraction of that muscle is defined as the _____.

- a. depolarization period
- b. latent period
- c. recruitment period
- d. refractory period

ANSWER

BACK TO GAME

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[BACK TO GAME](#)

Muscle Contraction:
\$400 Question

Which type of muscle contraction occurs when the muscle neither shortens nor lengthens during contraction?

- a. Isotonic
- b. Concentric
- c. Eccentric
- d. Isometric

ANSWER

BACK TO GAME

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[BACK TO GAME](#)

Muscle Contraction:
\$500 Question

Skeletal muscle contractions increase in strength due to _____.

- a. incomplete tetany
- b. recruitment of motor units
- c. an increase in threshold stimulus
- d. increasing the number of twitches

ANSWER

BACK TO GAME

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[BACK TO GAME](#)

Muscle Metabolism:
\$100 Question

The energy source that is used *directly* for muscle contraction is _____.

- a. ATP
- b. glucose
- c. creatine phosphate
- d. fatty acids

ANSWER

BACK TO GAME

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[BACK TO GAME](#)

Muscle Metabolism:
\$200 Question

Muscle soreness may be due in part to which pathway of ATP production?

- a. Phosphorylation
- b. Aerobic respiration
- c. Anaerobic glycolysis
- d. Oxidation

ANSWER

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[BACK TO GAME](#)

Muscle Metabolism:
\$300 Question

After about 30 minutes of exercise, which substance becomes the major source of fuel?

- a. Glucose
- b. Pyruvic acid
- c. Fatty acid
- d. Lactic acid

ANSWER

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[BACK TO GAME](#)

Muscle Metabolism:
\$400 Question

Which activity would be most dependent upon creatine?

- a. Tennis
- b. Soccer
- c. Jogging
- d. Diving

ANSWER

BACK TO GAME

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[BACK TO GAME](#)

Muscle Metabolism:
\$500 Question

All of the following can occur during exercise *except*:

- a. oxygen levels decrease.
- b. ATP levels decline.
- c. inorganic phosphate levels decrease.
- d. calcium levels decrease.

ANSWER

BACK TO GAME

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[BACK TO GAME](#)

Smooth Muscle:
\$100 Question

Which of the following is present in smooth muscle?

- a. Sarcomeres
- b. T tubules
- c. Sarcolemma
- d. Triads

ANSWER

BACK TO GAME

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[BACK TO GAME](#)

Smooth Muscle:
\$200 Question

Smooth muscle cells can contract as a unit due to the presence of _____.

- a. dense bodies
- b. gap junctions
- c. diffuse junctions
- d. motor end plates

ANSWER

BACK TO GAME

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Smooth Muscle:
\$300 Question

Calcium binds to this substance in smooth muscle contraction.

- a. Troponin
- b. Calmodulin
- c. ATP
- d. Myosin kinase

ANSWER

BACK TO GAME

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\$300 Answer

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[BACK TO GAME](#)

Smooth Muscle:
\$400 Question

Smooth muscle contains _____ that correspond to the Z discs of skeletal muscle.

- a. dense bodies
- b. varicosities
- c. diffuse junctions
- d. gap junctions

ANSWER

BACK TO GAME

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[BACK TO GAME](#)

Smooth Muscle:
\$500 Question

What unique characteristic of smooth muscle allows your stomach to stretch as you eat and not contract immediately to expel food?

- a. Hyperplasia
- b. Slow contraction
- c. Single unit contraction
- d. Stress-relaxation response

ANSWER

BACK TO GAME

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FINAL ROUND Question

Which of the following is a characteristic of slow oxidative muscle fibers?

- a. Large diameter
- b. Few mitochondria
- c. High myoglobin content
- d. Poor blood supply

ANSWER

BACK TO GAME

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