

TOPIC: INTRODUCTION TO MUSCLES AND MUSCLE TISSUE

Properties of Muscle Tissue

- *Recall:* Muscle tissue is specialized for _____ to create movement.
 - Convert chemical energy to _____ energy.
 - Generate _____.
- Properties of muscles:



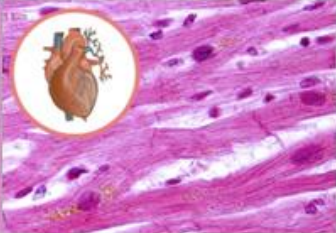
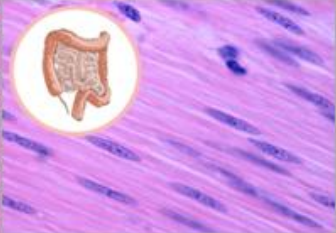
PRACTICE: A main function of muscle is to convert chemical energy to mechanical energy. Which property of muscles relates most directly to this function?

- a) Contractility.
- b) Extensibility.
- c) Elasticity.
- d) Excitability.

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Types of Muscle Tissue

- *Recall:* _____ types of muscle tissue in the human body:

Muscle Type	Skeletal Muscle	Cardiac Muscle	Smooth Muscle
Location	Connected to Bones	Heart	_____ & Blood Vessels
Voluntary/ Involuntary	Voluntary	_____	Involuntary
Striated	_____	Striated	____-Striated
Nuclei per Cell	Many	One	_____
			

EXAMPLE: Amal claims he can lower his heart rate by thinking about it, just like how he can flex his bicep by thinking about it. Does this seem possible given the type of muscle tissue in the heart? Explain your reasoning.



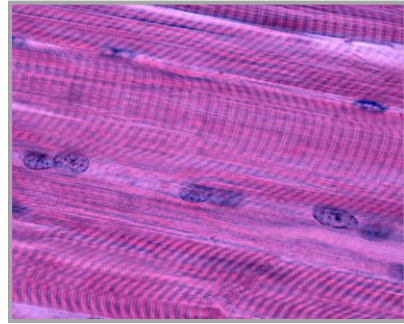
PRACTICE: You are looking through a microscope at muscle tissue and you do not see any striations. What type or types of muscle could you be looking at?

- a) Cardiac.
- b) Skeletal.
- c) Smooth.
- d) A & C are both correct.

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PRACTICE: What type of muscle tissue is shown in the slide below?

- a) Cardiac.
- b) Skeletal.
- c) Smooth.
- d) It is impossible to tell from the image.



PRACTICE: Which type of muscle cell is typically the largest?

- | | |
|--------------|---|
| a) Cardiac. | c) Smooth. |
| b) Skeletal. | d) Different types of muscle cells are roughly the same size. |