

Module 2 – L06

Muscular Tissue

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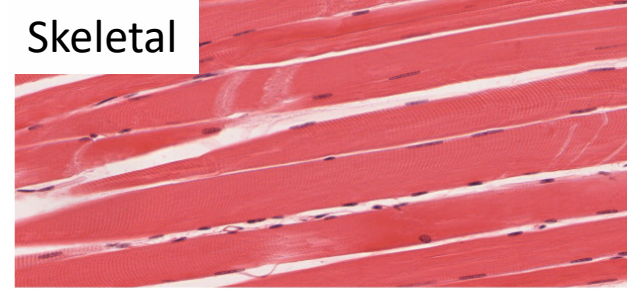
6. Muscle Tissue Structural Characteristics

- Properties that allow movement
 - Voluntary
 - Involuntary
- Muscle cells are:
 - Excitable
 - They respond to a stimulus
 - Contractile
 - They shorten and generate a pulling force

Types of Muscle Tissue

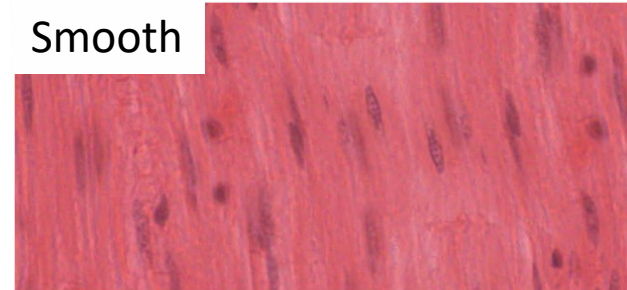
Tissues	Histology	Function	Location
Skeletal	Long cylindrical fiber, striated, many peripherally located nuclei	Voluntary movement, produces heat, protects organs	Attached to bones and around entrance points to body (e.g., mouth, anus)
Smooth	Short, spindle-shaped, no evident striation, single nucleus in each fiber	Involuntary movement, moves food, involuntary control of respiration, moves secretions, regulates flow of blood in arteries by contraction	Walls of major organs and passageways
Cardiac	Short, branched, striated, single central nucleus	Contracts to pump blood	Heart

Skeletal



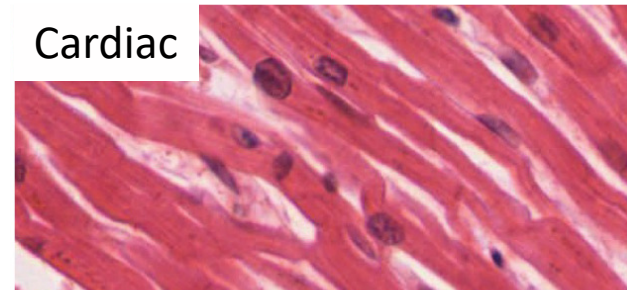
(a)

Smooth



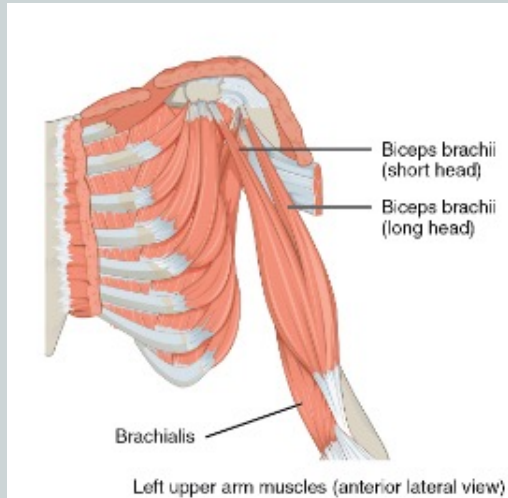
(b)

Cardiac

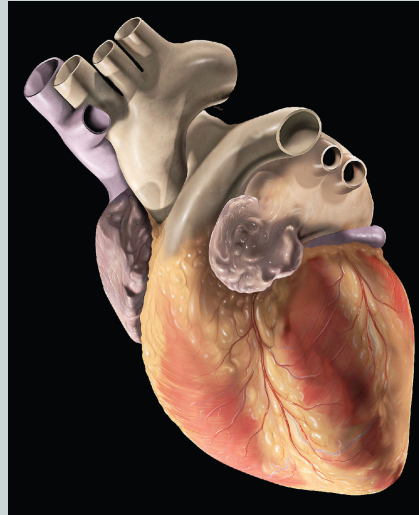


Examples of Muscle Tissue

Skeletal



Cardiac



Smooth

