

Muscle Introduction Notes *(Attach to ISN-61)

MMHS Anatomy and Physiology

General Characteristics

- _____ muscles in the human body
- Muscles makes up _____ % of the body weight
- _____ main types that make up the human body
- Viewed as “_____” of the body
- Prefixes associated with muscles
myo- and mys- = “_____”
Sarco = “_____”
Globin = “_____”

Muscle Properties

- Muscles can only _____ or shorten.
- Muscles can't _____, they only _____.
- Muscle occur in _____ pairs.

Prime Mover: causes the _____ movement.

Antagonist: _____ or _____ a movement.

Example: Prime mover is the _____ and the antagonist is the _____.

→ Body building adds very little new _____ but instead adds _____ and _____. (these additions make muscles work more efficiently).

The 3 Types of Muscle (SKELETAL, SMOOTH, AND CARDIAC)

1. Skeletal or Striated Muscle

- a. _____ and _____ with many nuclei (=multinucleate)
- b. Under both _____ and _____ (shiver) movement.

Tendons attach muscle to bone at 2 points.

- a. Origin: _____ muscle point (anchor)
- b. Insertion: _____ attachment point

Skeletal Muscles occur in pairs that have opposing motion.

- a. Flexors: decrease the _____ between body parts.
- b. Extensors: _____ the angle between body parts.

Example: The *biceps brachii* is the _____ and the *triceps brachii* is the _____.

Skeletal Muscle Properties

4 Main Properties of Skeletal Muscles

1. _____: shorten with _____.
2. _____: will return to its _____ form.
3. _____: responds to a _____ (nerve)
4. _____: can be _____.

2. Smooth Muscle

- _____ with 1 nucleus (uninucleate)
- Under _____ Movement
- Located in _____, urinary _____, and vascular system.
- _____: the term for the rhythmic, synchronized _____ of smooth muscle.

[Three Types of Muscle Continued...]

3. Cardiac or Myocardium

- Found only in _____ tissue.
- _____ with 1 nucleus and _____ discs.
- Involuntary (about _____ beats/day)
- Pacemakers (SA node of right _____) artificially controls the _____ of the heart.