

The Muscular System

I. Interactions of Skeletal Muscles

A. Attachments

1. Insertion
2. Origin

B. Pull

C. Functional Groups

1. prime mover
2. synergist
3. fixator
4. antagonist

D. Non-bone skeletal muscles

II. Patterns of Fascicle Organization

A. Parallel

B. Fusiform

1. belly

C. Circular

D. Convergent

E. Pennate

1. types

- a. unipennate
- b. bipennates
- c. multipennate

III. Muscle Mechanics: Lever Systems

A. Components

1. lever
2. fulcrum
3. effort
4. load)

B. Power vs. speed

1. mechanical advantage
2. mechanical disadvantage

C. Classes of lever systems

1. first-class lever
2. second-class lever
3. third-class lever

IV. Naming Skeletal Muscles

A. Location

B. Shape

C. Size

1. maximus
2. medius
3. minimus

D. Length

1. brevis
2. longus

E. Direction

1. rectus
2. obliques

F. Number of origins

G. Location of attachments

H. Action

1. flexor
2. extensor

3.abductor

4.adducto

V.Muscle Movement

A.Flexion

B.Extension

C.Rotation

D.Adduction

E.Abduction

F.Circumduction

G.Dorsiflexion

H.Plantar flexion

I. Inversion

J.Eversion

K.Supination

L.Pronation

M.Opposition

N.Protraction

O.Retraction