

MOVEMENTS

- Movement around a joint may be around any one (or more) of three axes
- Most movements are found in pairs
- For every movement, there is generally a movement that is opposite to it

FLEXION-EXTENSION

- **Flexion** – reduces the angle between two bones at a joint
- **Extension** – increases the angle between two bones at a joint
- Usually sagittal plane movement
- E.g. Bicep Curl
 - Lifting the weight reduces the angle at the joint = flexion
 - Lowering the weight increases the angle at the joint = extension

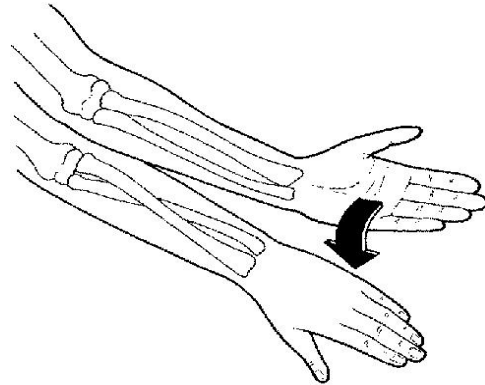


PRONATION-SUPINATION

Movements relative to the forearm and hand

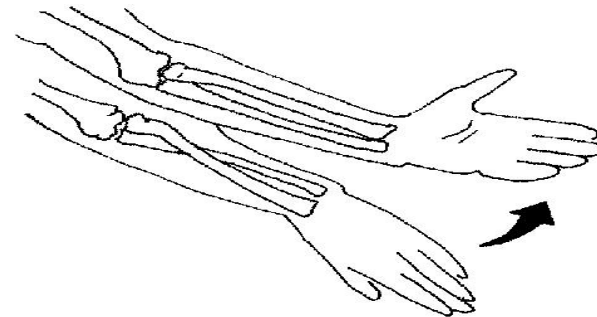
- PRONATION

- When the palm is moved to face posteriorly



- SUPINATION

- When the palm is moved to face anteriorly
- (hint: you can hold a bowl of soup)

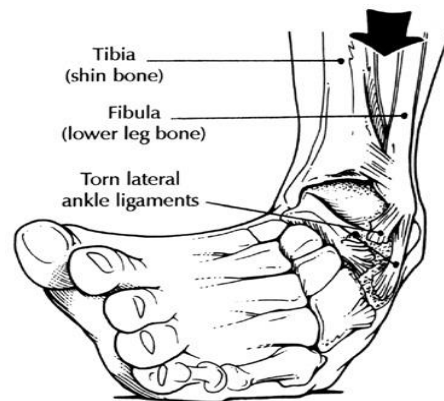


INVERSION- EVERSION

Movements relative to the sole of the foot

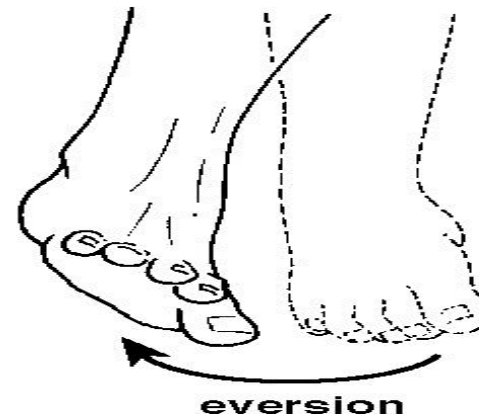
- INVERSION

- when the sole is turned inward (as when you “go over ”on your ankle)



- EVERSION

- When the sole is turned outward or away from the median plane of the body



DORSIFLEXION PLANTAR FLEXION

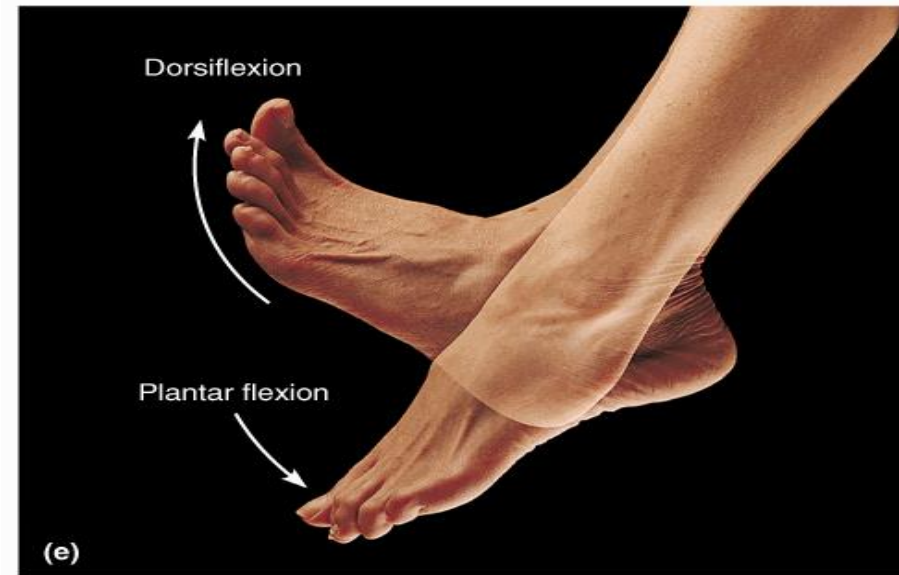
Modified flexion with respect to ankle joint

- DORSIFLEXION

- Bringing the top of the foot toward the lower leg or shin

- PLANTAR FLEXION

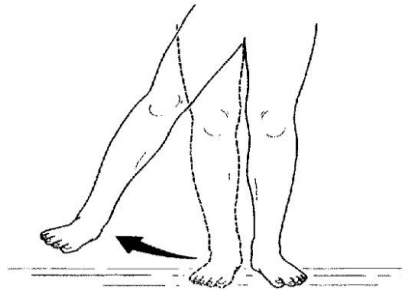
- "planting" the foot



ABDUCTION - ADDUCTION

- ABDUCTION

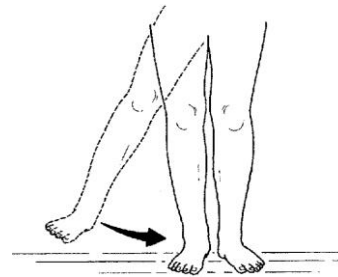
- Moving a segment away from the midline
- Abduct = “take away” from the midline



- Frontal plane movement

- ADDUCTION

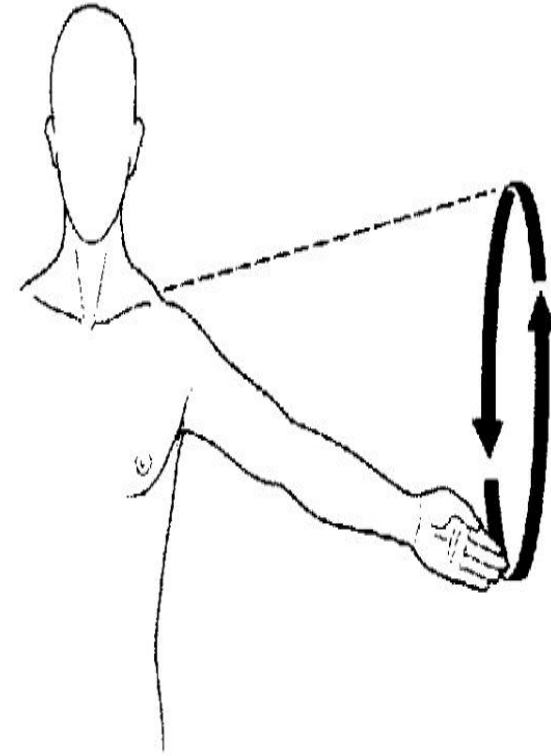
- Moving segment towards the midline of the body
- Adduct = “add” towards the midline



- E.g. the motions of the arms and legs during a jumping jack

CIRCUMDUCTION

- CIRCUMDUCTION
 - A cone of movement that does not include any rotation
 - Occurs when flexion-extension movements are combined with abduction-adduction movements
 - E.g. tracing an imaginary circle in the air with your index finger



ROTATION

- Turning of a bone on its longitudinal axis
- **Medial rotation** – rotation towards the midline
- **Lateral rotation** – rotation away from the midline

