

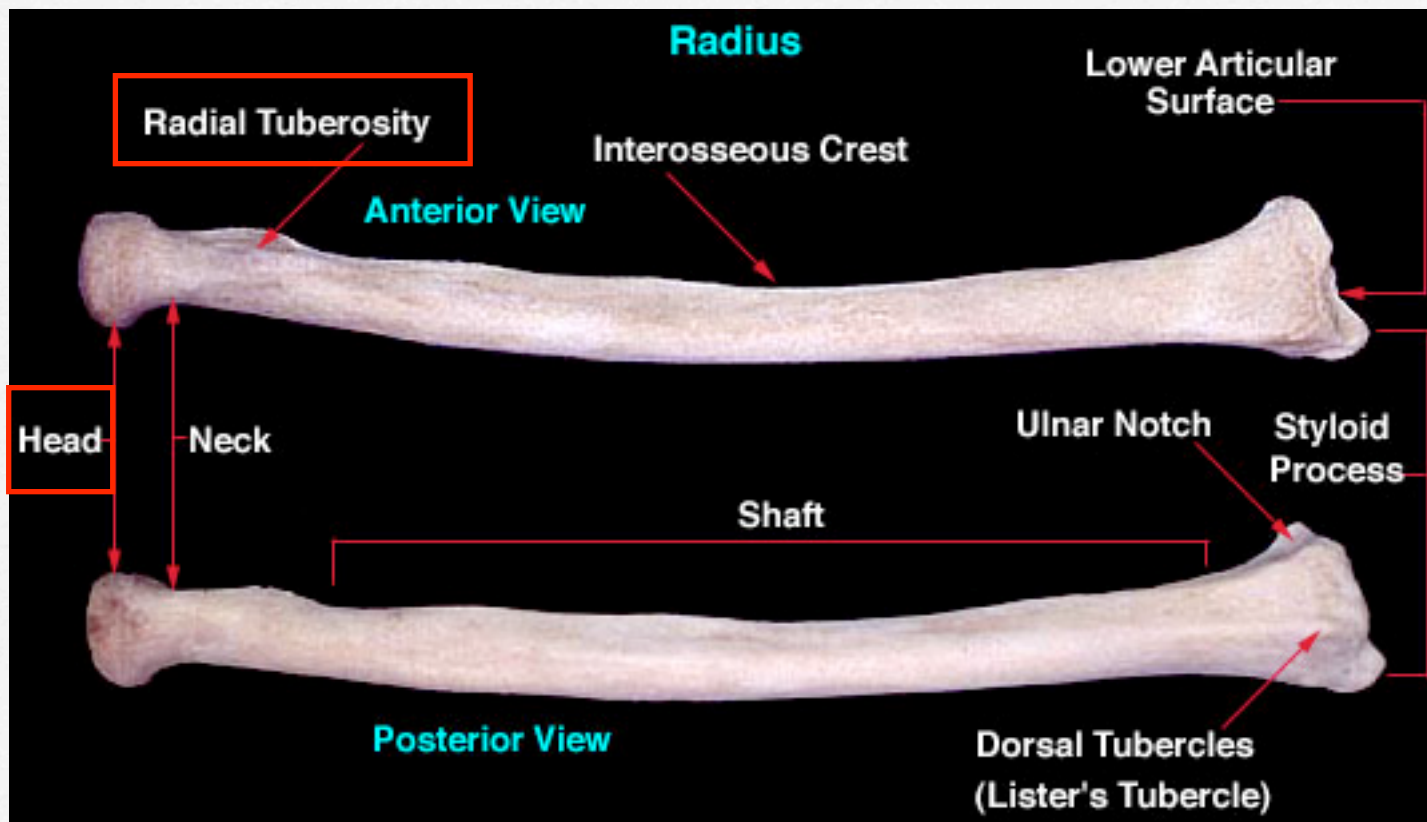
The Elbow and Radioulnar Joint

Bone and Actions
Chapter 6

Terminology

- ❑ **Condyle – large round projection**
- ❑ **Epicondyle – a projection located above a condyle**
- ❑ **Fossa- hollow, depression or flattened surface**
- ❑ **Tubercle - small round projection**
- ❑ ***Supination – external rotation of the radius**
- ❑ ***Pronation – internal rotation of the radius**

Radius



radial
tuberosity

head

Radius

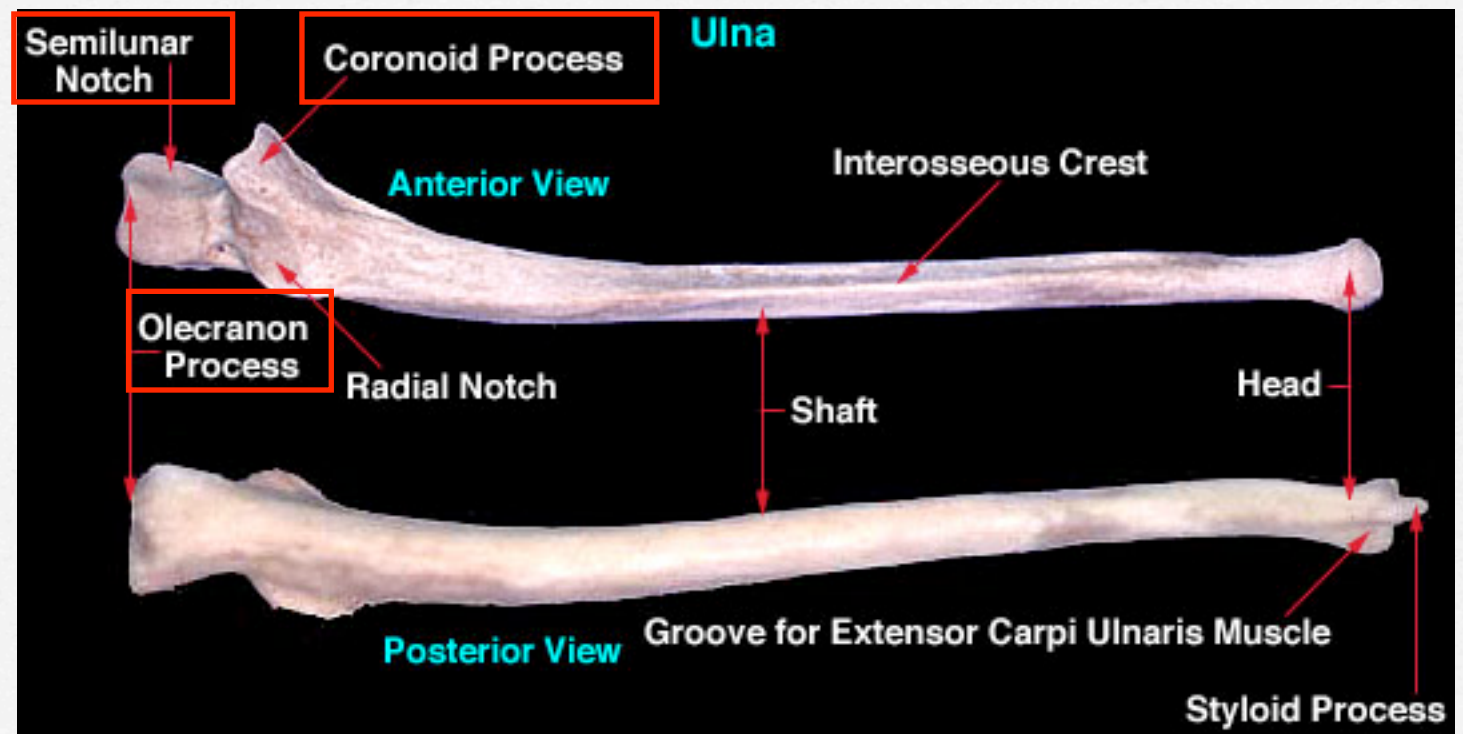


head

radial
tuberosity

Ulna

- ☐ coronoid process
- ☐ trochlear (semilunar) notch
- ☐ olecranon process



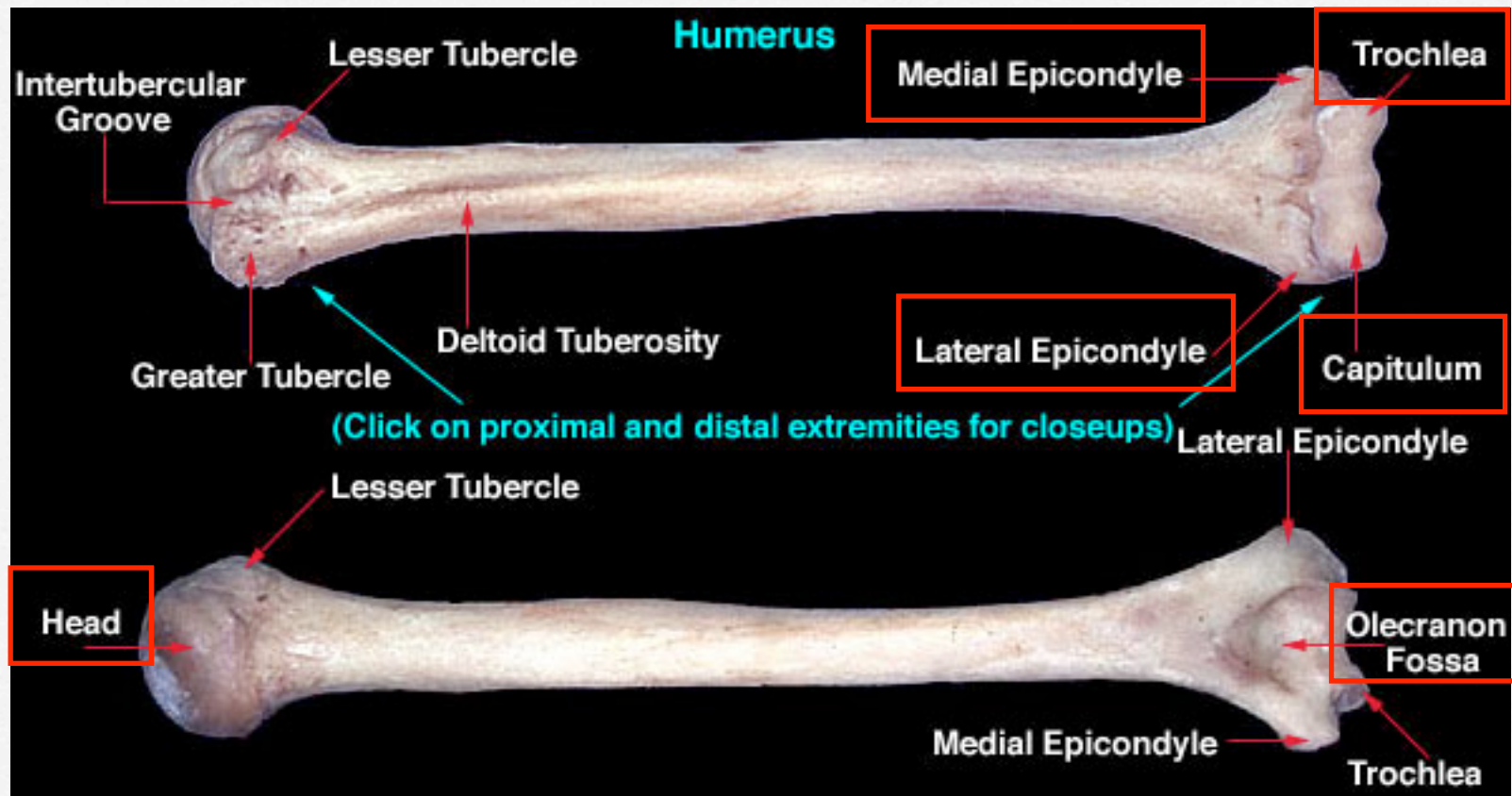
Ulna



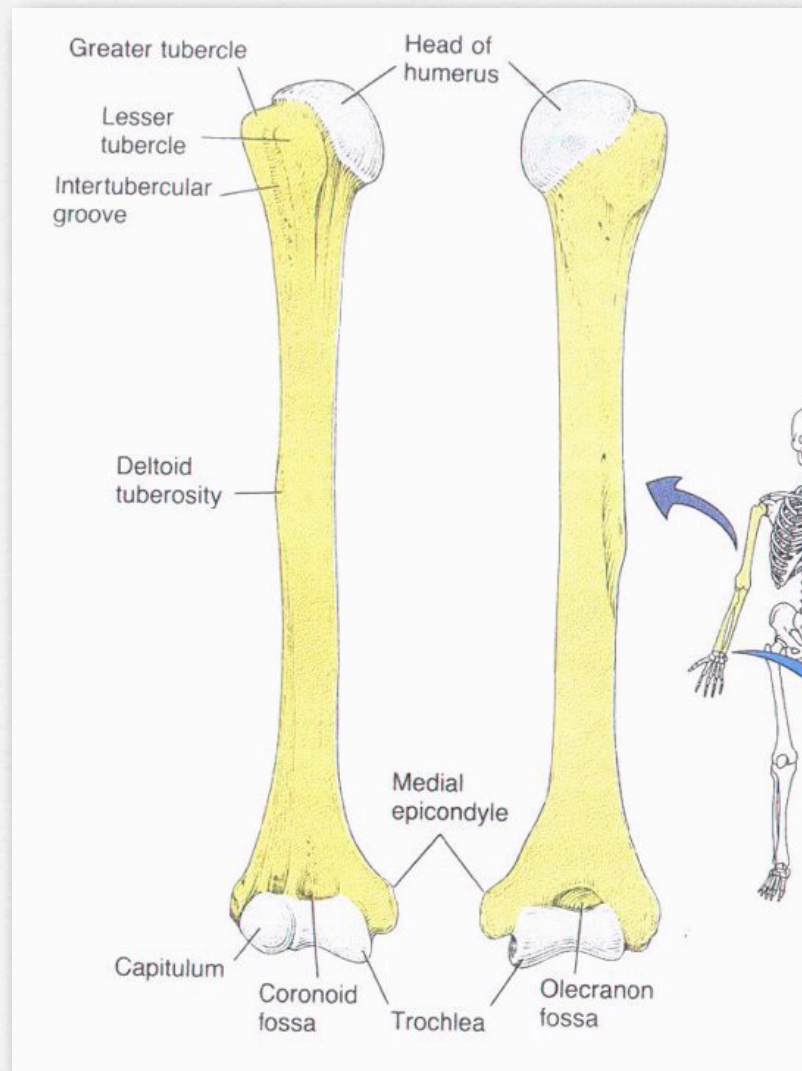
1. olecranon process
2. trochlear (semilunar) notch
3. coronoid process

Humerus

- ☐ medial epicondyle
- ☐ lateral epicondyle
- ☐ trochlea
- ☐ capitulum
- ☐ olecranon fossa
- ☐ head



Humerus



Humerus

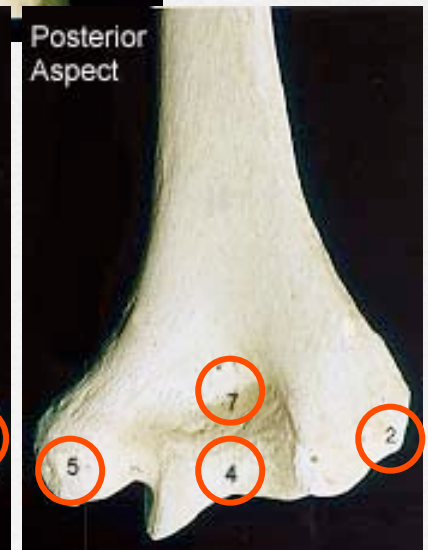
2. lateral epicondyle

3. capitulum

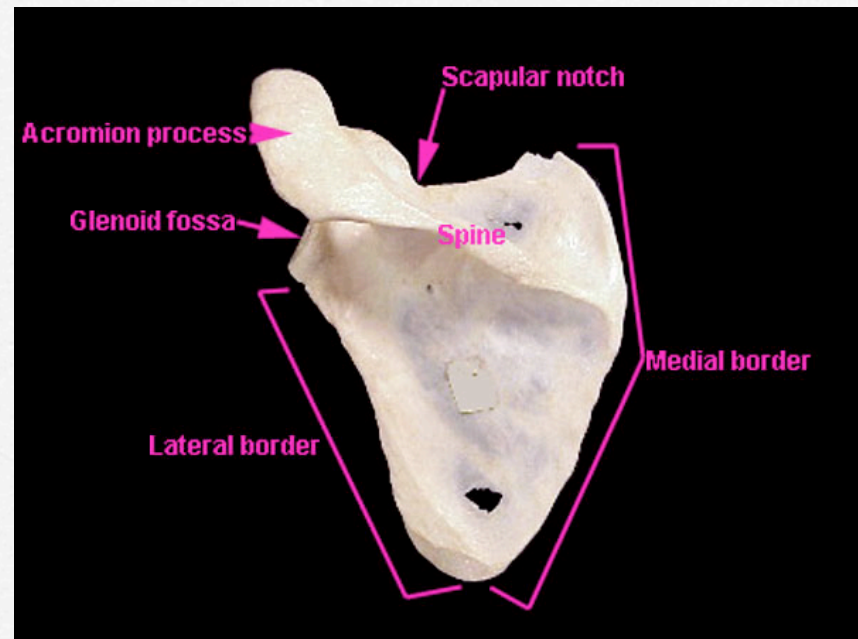
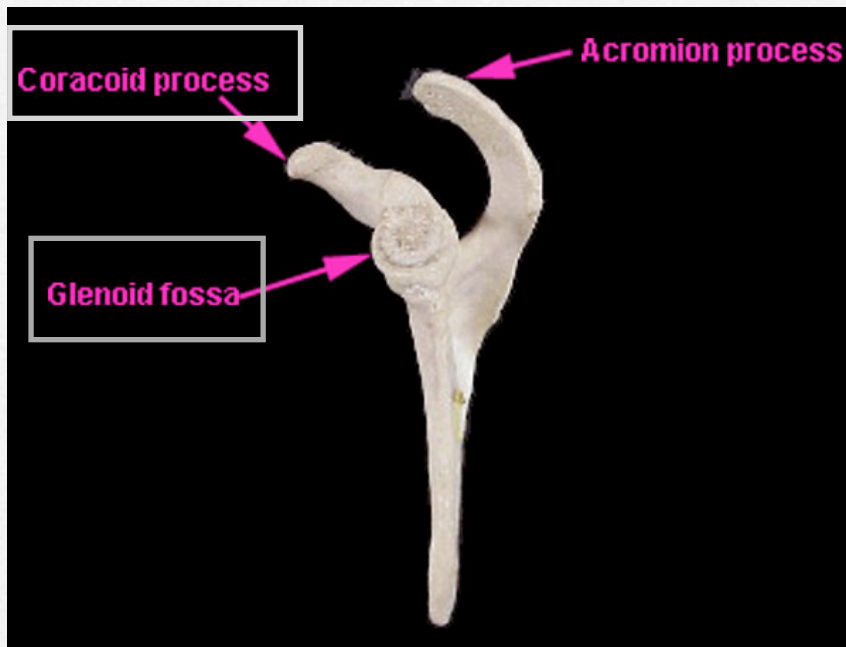
4. trochlea

5. medial epicondyle

7. olecranon fossa



Scapula



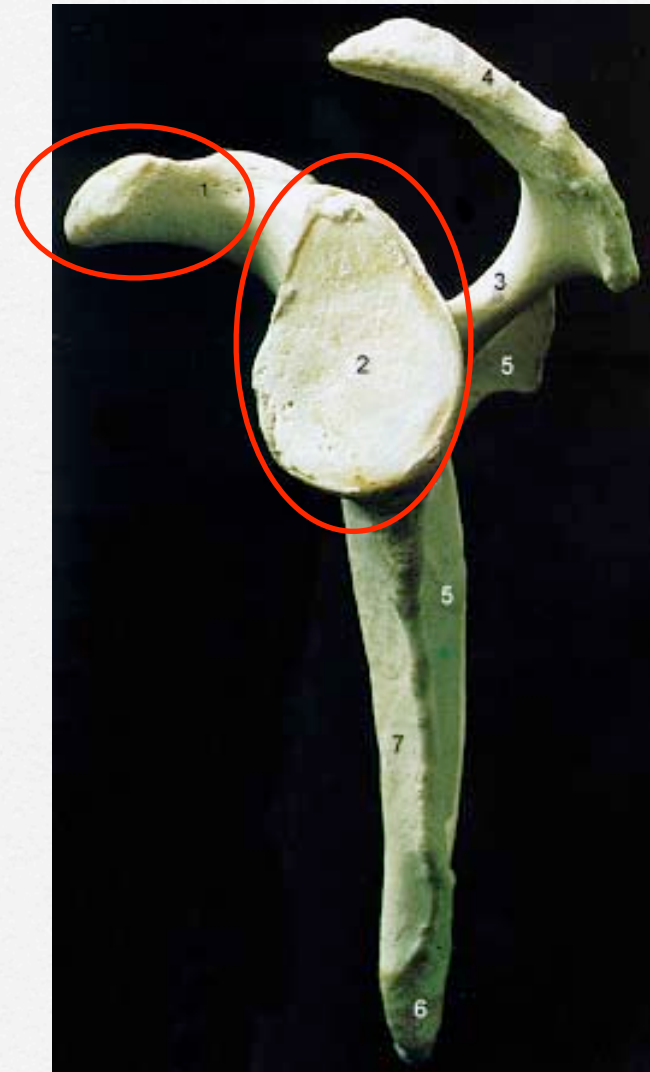
- ❑ glenoid fossa
- ❑ coracoid process

Scapula



2. glenoid fossa

1. coracoid process



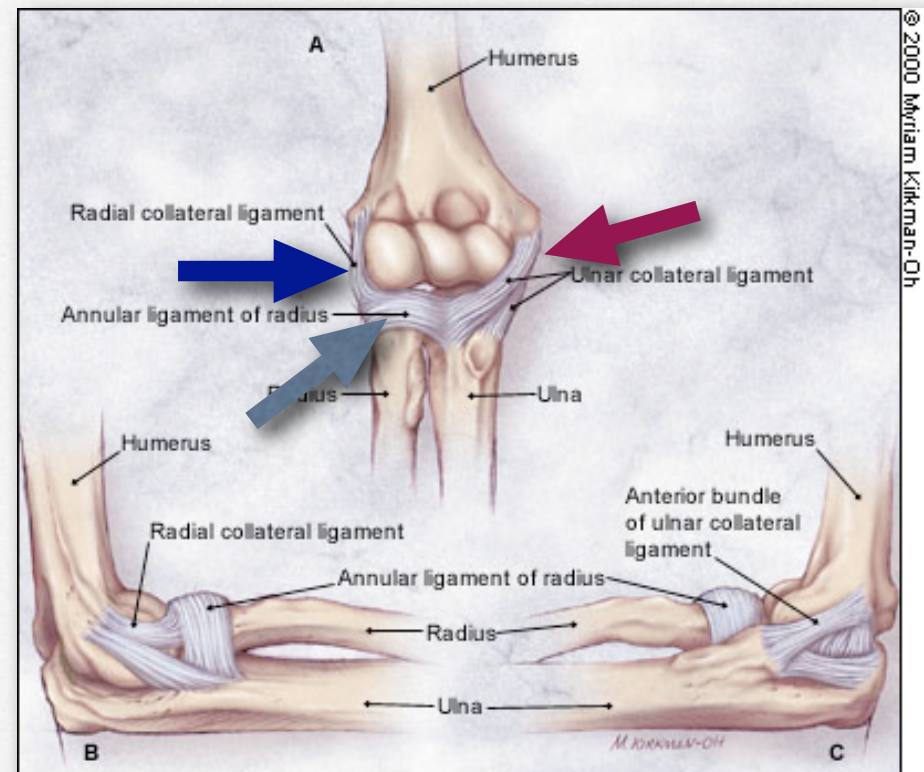
Joints

- Humeroulnar (elbow)
 - humerus (trochlea) and ulna (trochlear notch)
 - hinge joint
- Radioulnar
 - radius (head) and ulna
 - pivot joint
- Radiohumeral



Ligaments

- Radial collateral
- ulnar collateral
- Annular



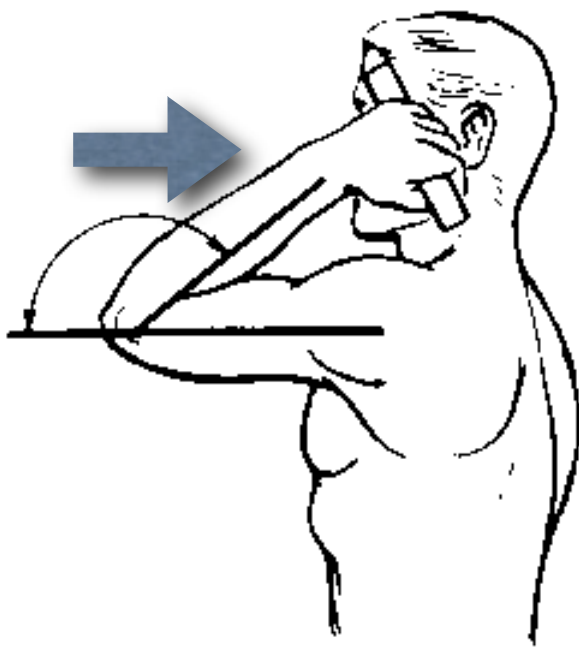
Ligaments



Actions

- Flexion and Extension
 - Elbow or Humeroulnar Joint
 - Sagittal plane
- Supination and Pronation
 - Radioulnar
 - Transverse plane

Actions



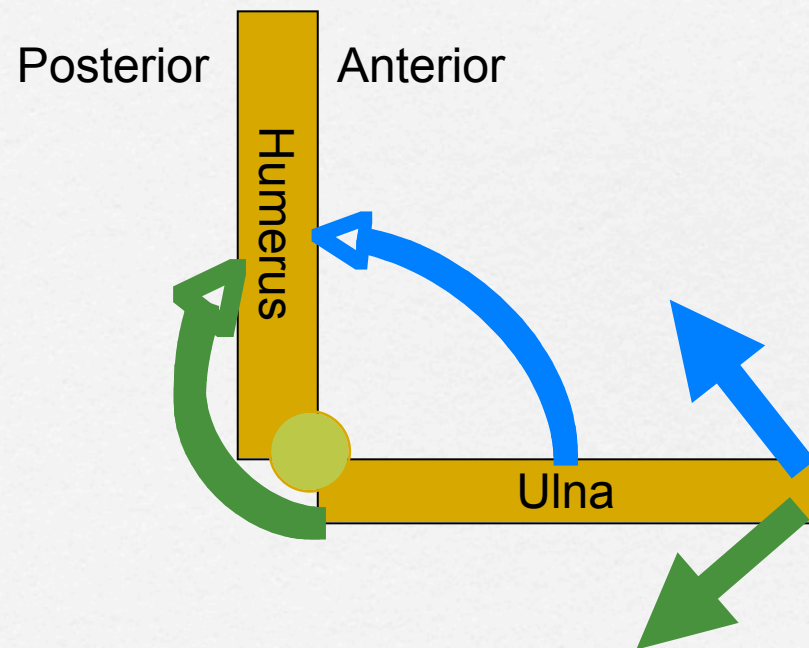
ELBOW FLEXION



ELBOW EXTENSION

Actions

- What is the action when an anterior muscle contracts?
- What is the action when a posterior muscle contracts?

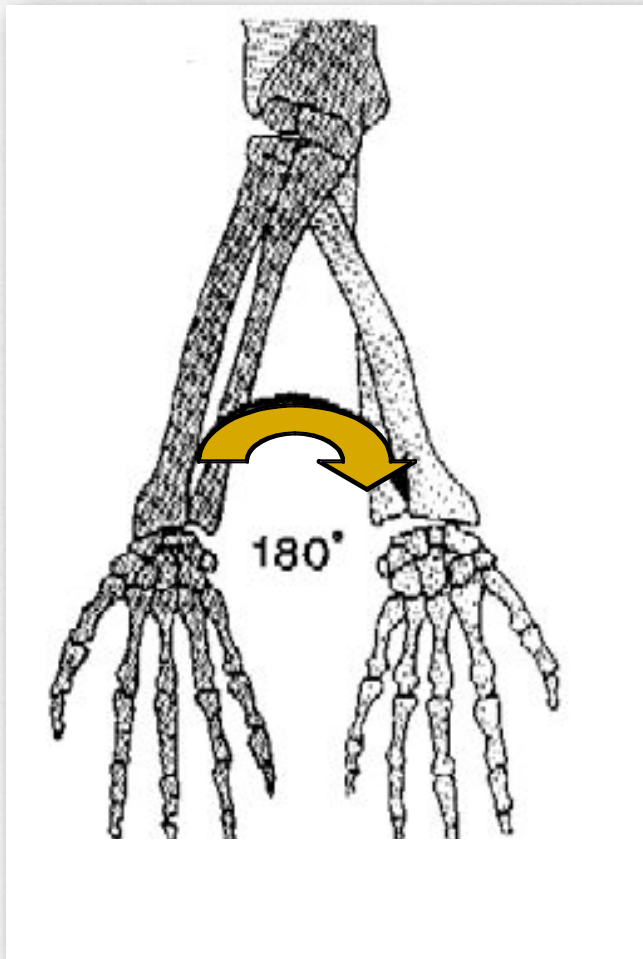


Actions



Pronation & Supination

Pronation



Radius moves
medially

Ends up crossing
the ulna

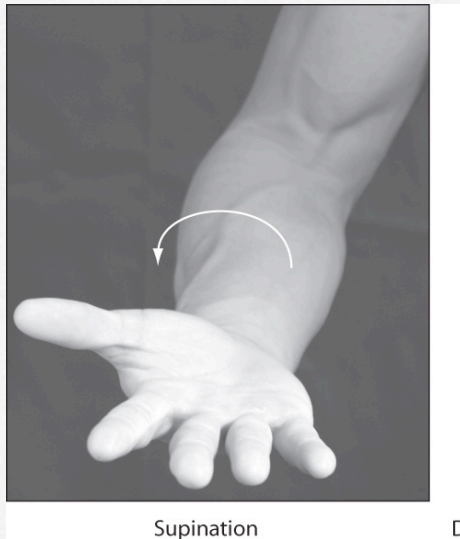


Pronation

Supination

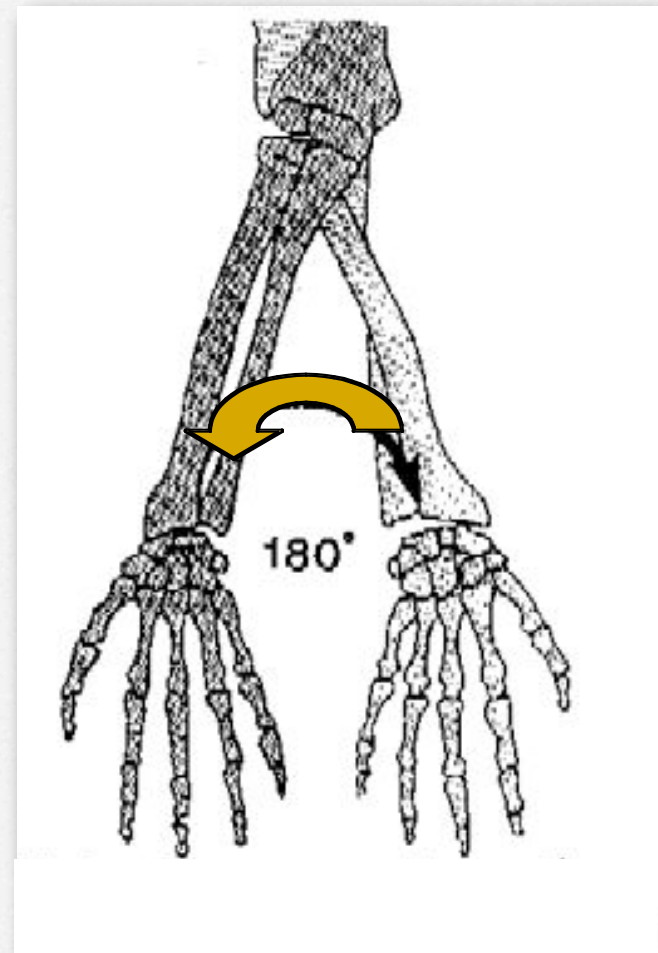
Radius moves laterally

Ends up parallel to the ulna

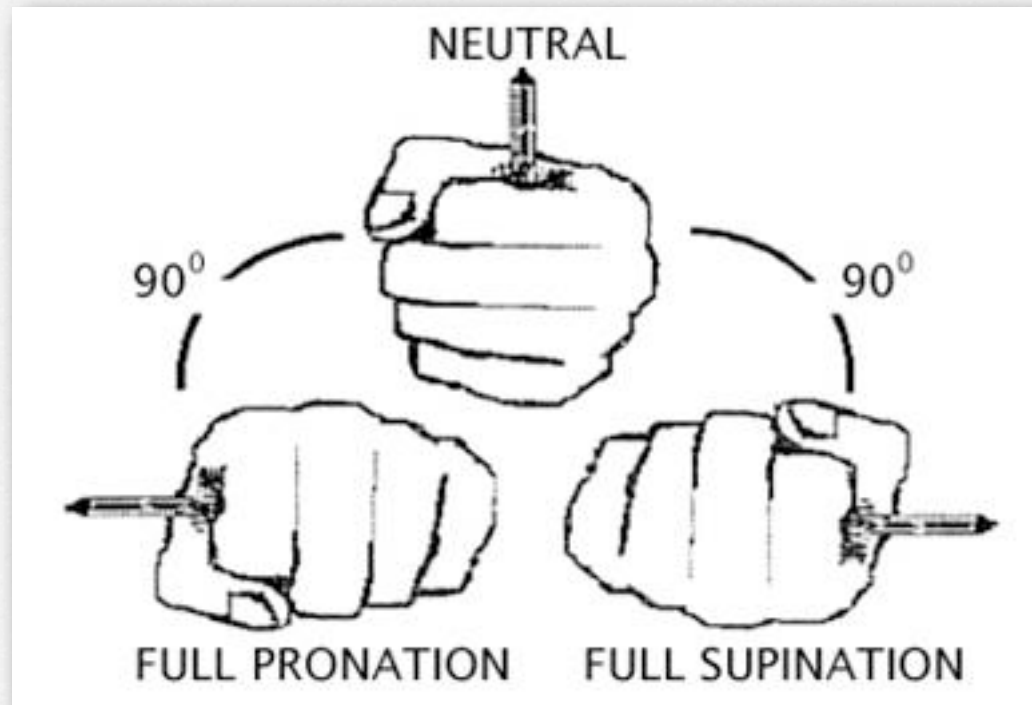


Supination

D



Neutral Position



Actions



Synergy between joints

- Tightening a screw: supination and flexion
- Loosening a screw: pronation and extension



What position
his right elbow
in? His right
forearm? His
left elbow?



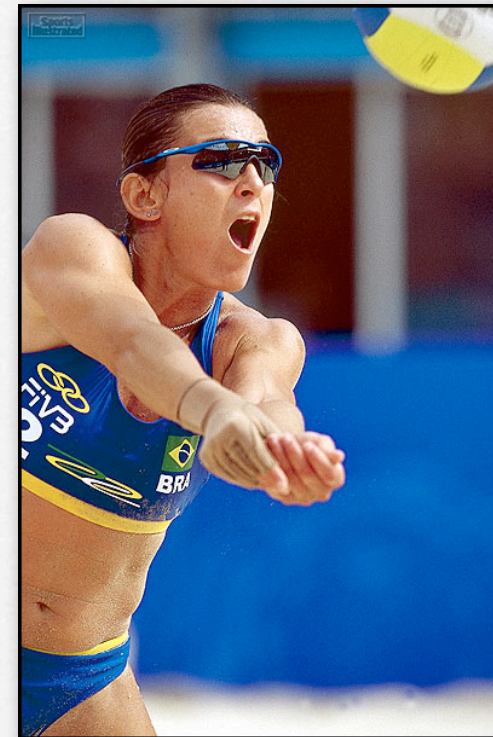
What position
is his right
forearm in?
What is his
name?



What position
is his left elbow
in?



What positions are her right elbow and forearm in?



What positions are her left elbow and forearm in?