

Introduction to Clinical Skills

Practical – Elbow Osteology and ROM

Recap

- Osteology

- Olecranon
- Radial Head
- Medial Epicondyle
- Lateral Epicondyle
- Lateral (Radial) Collateral Ligament
- Medial (Ulna) Collateral Ligament
- Anterior Joint Capsule

- AROM

- Flexion in pronation
- Flexion in mid-prone
- Flexion in supination (145-160°)
- Extension (0°)
- Pronation at 90° flexion (90°)
- Supination at 90° flexion (80-85°)

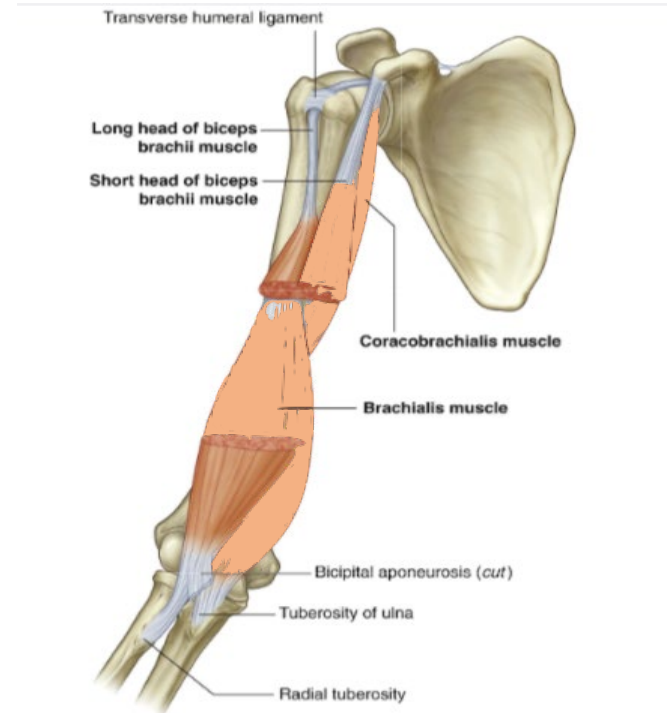
- PROM

- Flexion in pronation
- Flexion in mid-prone
- Flexion in supination (145-160°)
- Flexion has a soft, springy end feel
- Extension (0°)
- Extension has a firm end feel
- Pronation at 90° flexion (90°)
 - Springy
- Supination at 90° flexion (80-85°)
 - Springy
- 5 to 10° greater than active motion

- RROM

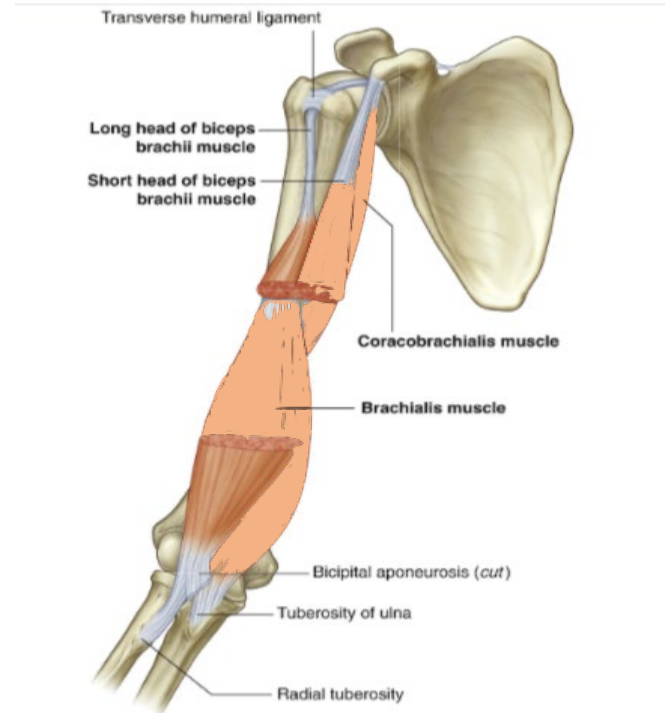
Biceps Brachii

- O:
 - long head – supraglenoid tubercle
 - Short head – apex of coracoid process of scapula
- I: two head fuse, insert on to radial tuberosity and bicipital aponeurosis (deep arm fascia)
- A: flexes elbow and supinates forearm



Brachialis

- O: distal 2/3rds anterior surface of humerus
- I: coronoid process and tuberosity of ulna
- A: Main flexor of the elbow



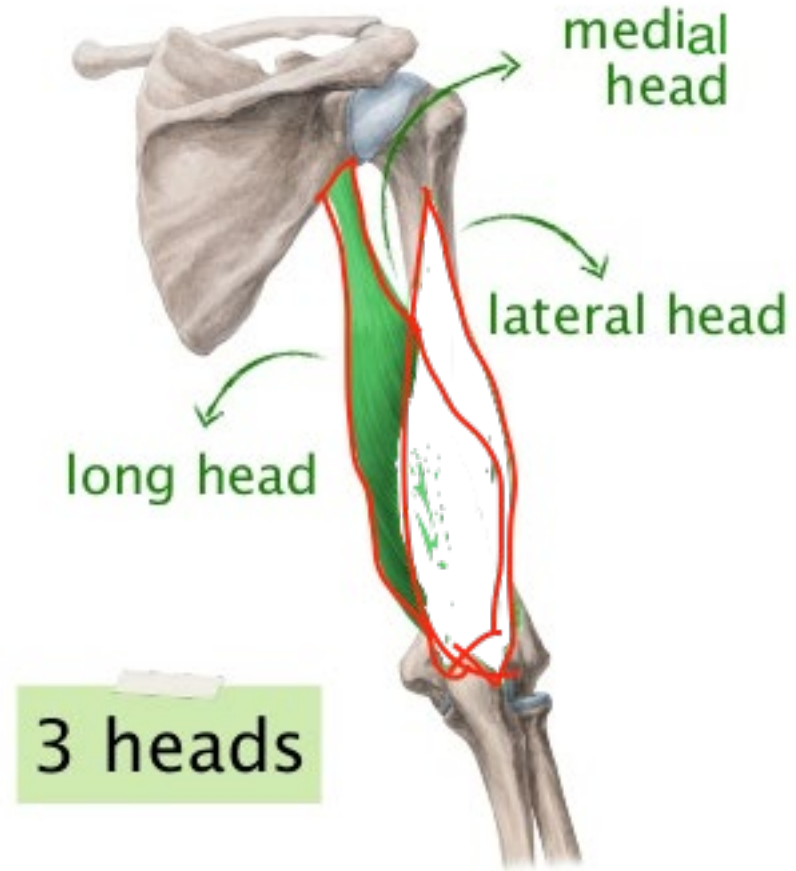
Brachoradialis

- O: upper 2/3rds anterior supracondylar ridge of humerus
- I: Lateral surface of radius
- A: flexor in mid- prone



Triceps Brachii

- O: long head – infraglenoid tubercle of scapula (and labrum)
- Lateral head – posterior surface of humerus (above and lateral to spiral groove)
- Medial head – posterior surface of humerus (below and medial to spiral groove)
- I: olecranon
- A: main elbow extensor



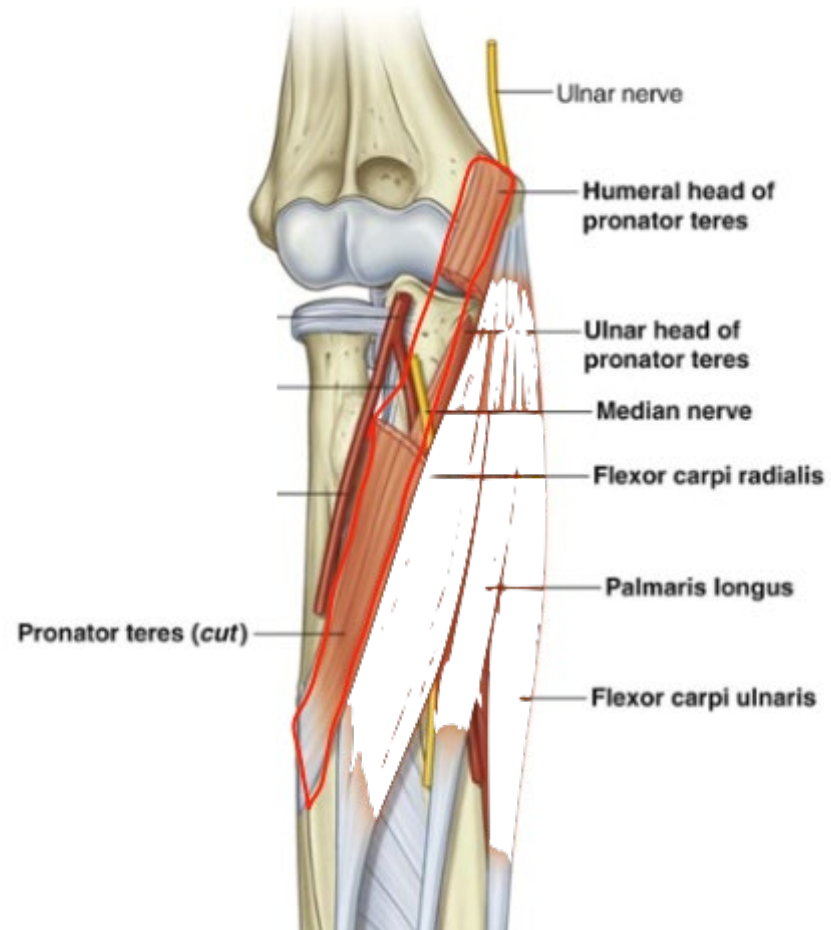
Anconeus

- O: posterior surface of lateral epicondyle of humerus
- I: lateral surface of olecranon and posterior surface of ulna
- A: assists elbow extension



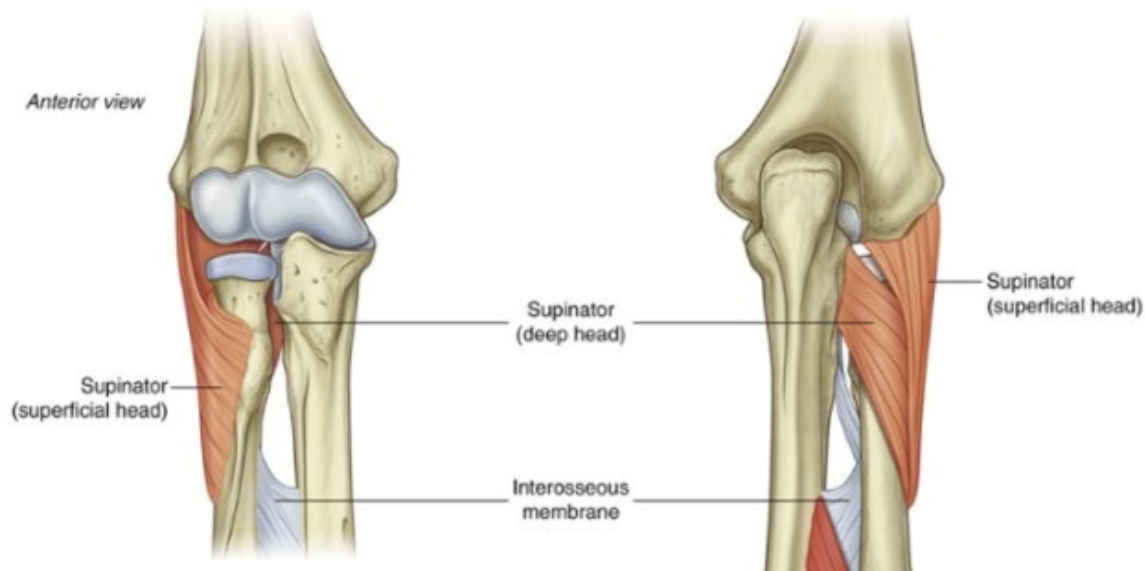
Pronator Teres

- O: common flexor origin (CFO)
medial epicondyle of humerus
AND pronator ridge of ulna
- I: Middle of lateral surface of
radius
- A: pronates forearm and weak
elbow flexor



Supinator

- O: lateral epicondyle of humerus (Common Extensor Origin CEO), radial collateral ligament, annular ligament, supinator crest of ulna
- I: posterior, lateral and anterior aspects of upper 1/3rd radius
- A: supinates forearm in all elbow positions



Other Muscles acting around Elbow

- Wrist mobilisers that attach at the elbow:
 - Extensor Carpi Radialis Brevis
 - Extensor Carpi Radialis Longus
 - Extensor Carpi Ulnaris
 - Flexor Carpi Ulnaris
 - Flexor Carpi Radialis

