RU RMT 02 Skeletal
Lecture 11
Pectoral Girdle

Clavicle

- Ossifies through intramembranous ossification
- It connects the axial skeleton and the upper limb
- Classified as a long bone
- The shaft of the clavicle is “S” shaped
- The lateral 1/3 is concave anteriorly (Acromial End) and articulates with the acromion of the scapula, known as the **Acromioclavicular** joint
- The medial 2/3 is convex anteriorly (Sternal End) and articulates with the manubrium of the sternum, known as the **Sternoclavicular** joint

Clavicle

- The inferior surface of the clavicle has from lateral to medial:
- **Trapezoid Line**: Attachment for the trapezoid ligament (which is the 2nd ligament that makes up the coracoclavicular ligament)
- **Conoid Tubercle**: Attachment for the conoid ligament (which is 1 of the 2 ligaments that make up the coracoclavicular ligament)
- **Subclavian Groove**: Attachment for the subclavius muscle
- **Impression:** For the costoclavicular ligament

CLAVICL

Scapula

Triangular shaped bone with an anterior and posterior

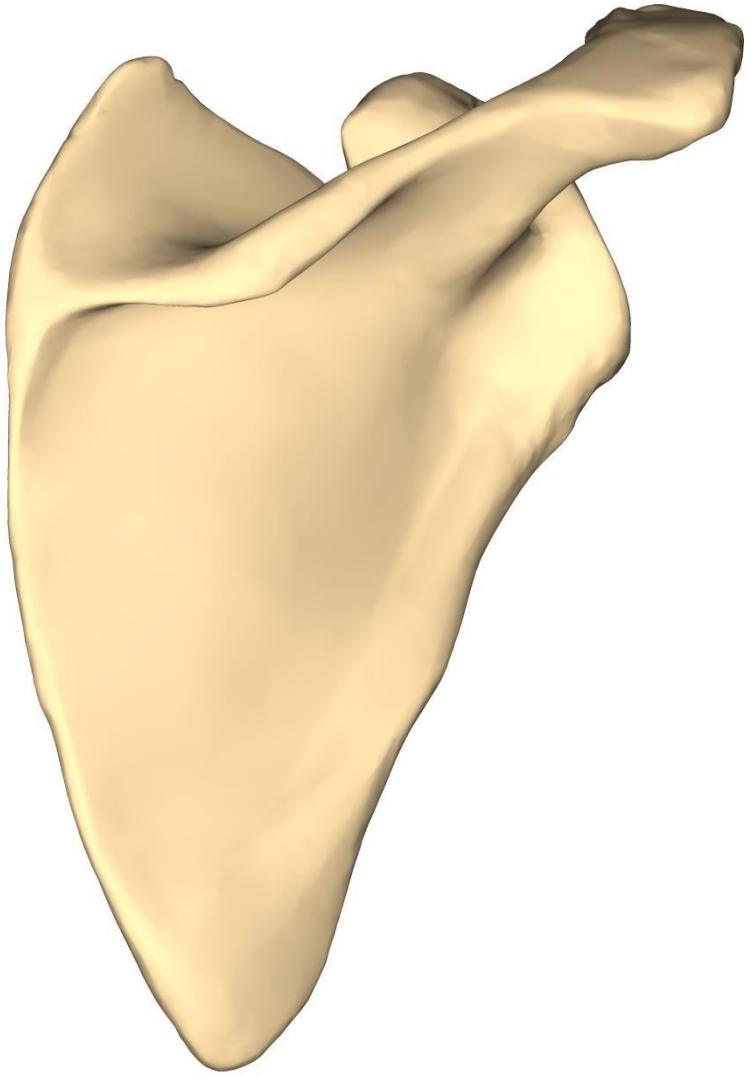
surface There are 3 angles and 3 borders:

- **Superior Angle**: highest point in the scapula, buried under thick muscle
- **Superior Border**: Extends laterally from the superior angle
- **Medial Border:** Aka Vertebral Border
- **Inferior Angle:** lowest point of scapula, often sticks out
- **Lateral Border:** Aka Axillary Border
- **Lateral Angle:** Found superior to the lateral border and includes
  the Glenoid Fossa

SCAPULA = POSTERIOR VIEW

- ***Spine of the Scapula*** = it extends from the medial border and projects out laterally to a flattened end known as the ***acromion***.
  - The ***acromial angle*** is the sharp change in direction between the spine of the scapula and the acromion.
- The spine of the scapula divides the posterior surface into 2 shallow depressions:
  - Supraspinous Fossa: Attachment for Supraspinatus muscle
  - Infraspinous Fossa: Attachment for Infraspinatus muscle

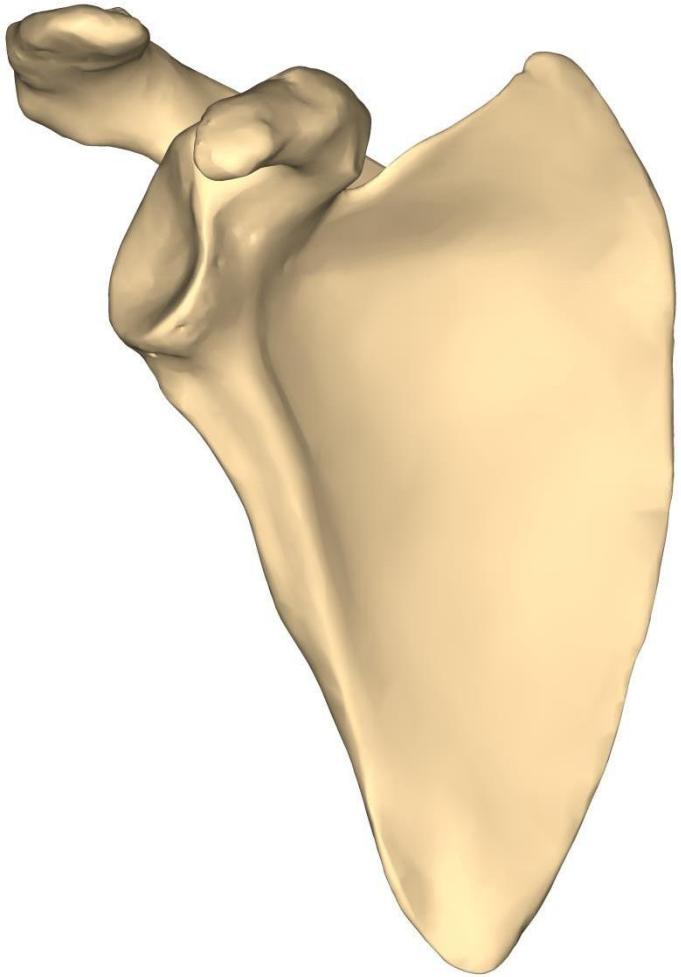
SCAPULA = POSTERIOR VIEW



SCAPULA = ANTERIOR VIEW

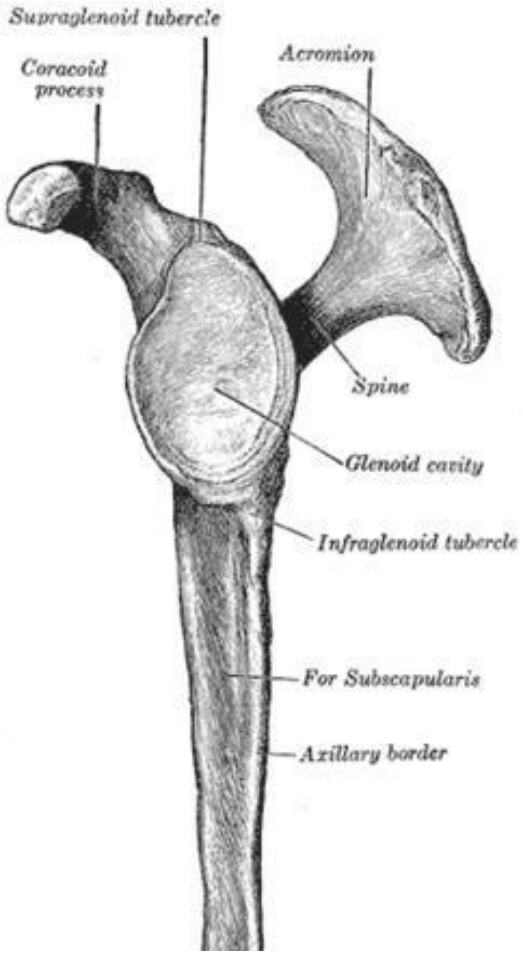
- **Subscapular Fossa** – a large shallow depression, houses the subscapularis muscle originates
- **Coracoid Process** **-** bony projection off of the anterior scapula (a tender palpation point in most people)
  - Just medial to the coracoid process on the superior border of the scapula, there is a notch known as the **Suprascapular Notch**

SCAPULA = ANTERIOR VIEW

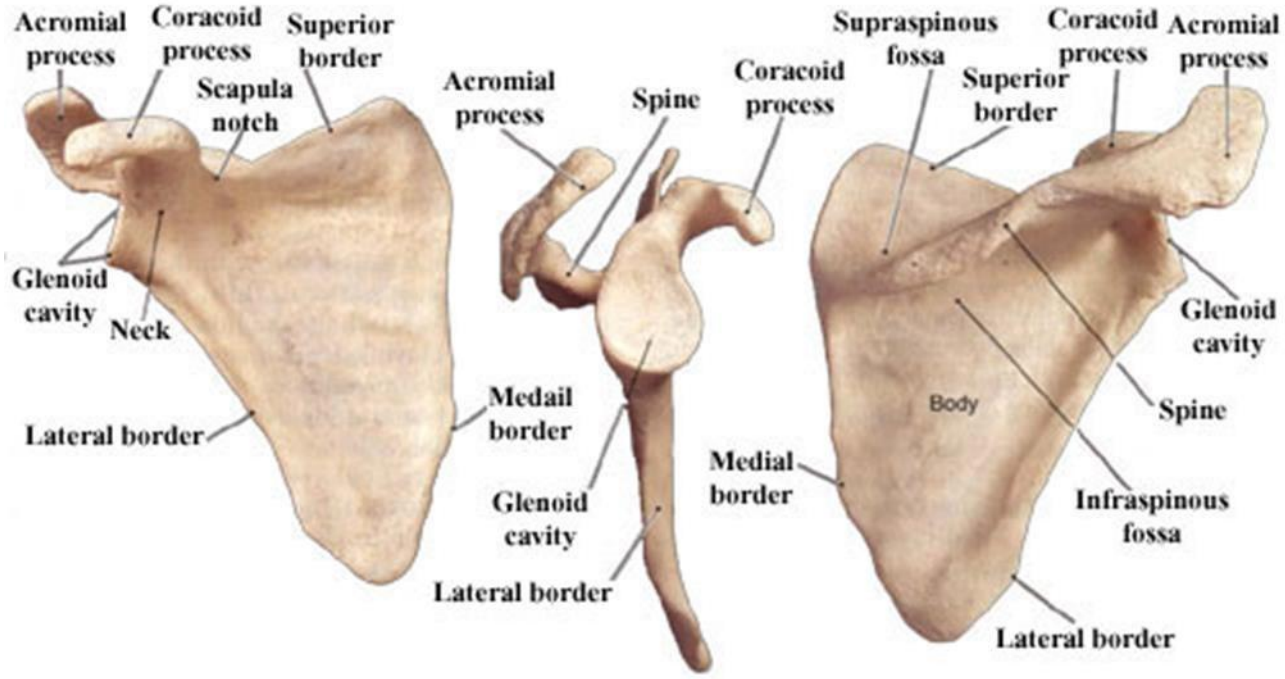


SCAPULA = LATERAL VIEW

- GLENOID FOSSA = found on the lateral border of the scapula (at the lateral angle)
  - This is where the humerus articulates with the scapula (makes up the glenohumeral joint)
- The Glenoid Fossa has two tubercles:
  - Supraglenoid Tubercle: Found at the superior aspect of the glenoid fossa
  - Infraglenoid Tubercle: Located at the inferior aspect of the glenoid fossa



GLENOID FOSSA



- Acromial angle
- Acromion
- Suprascapular notch
- Coracoid process
- Supraspinous fossa

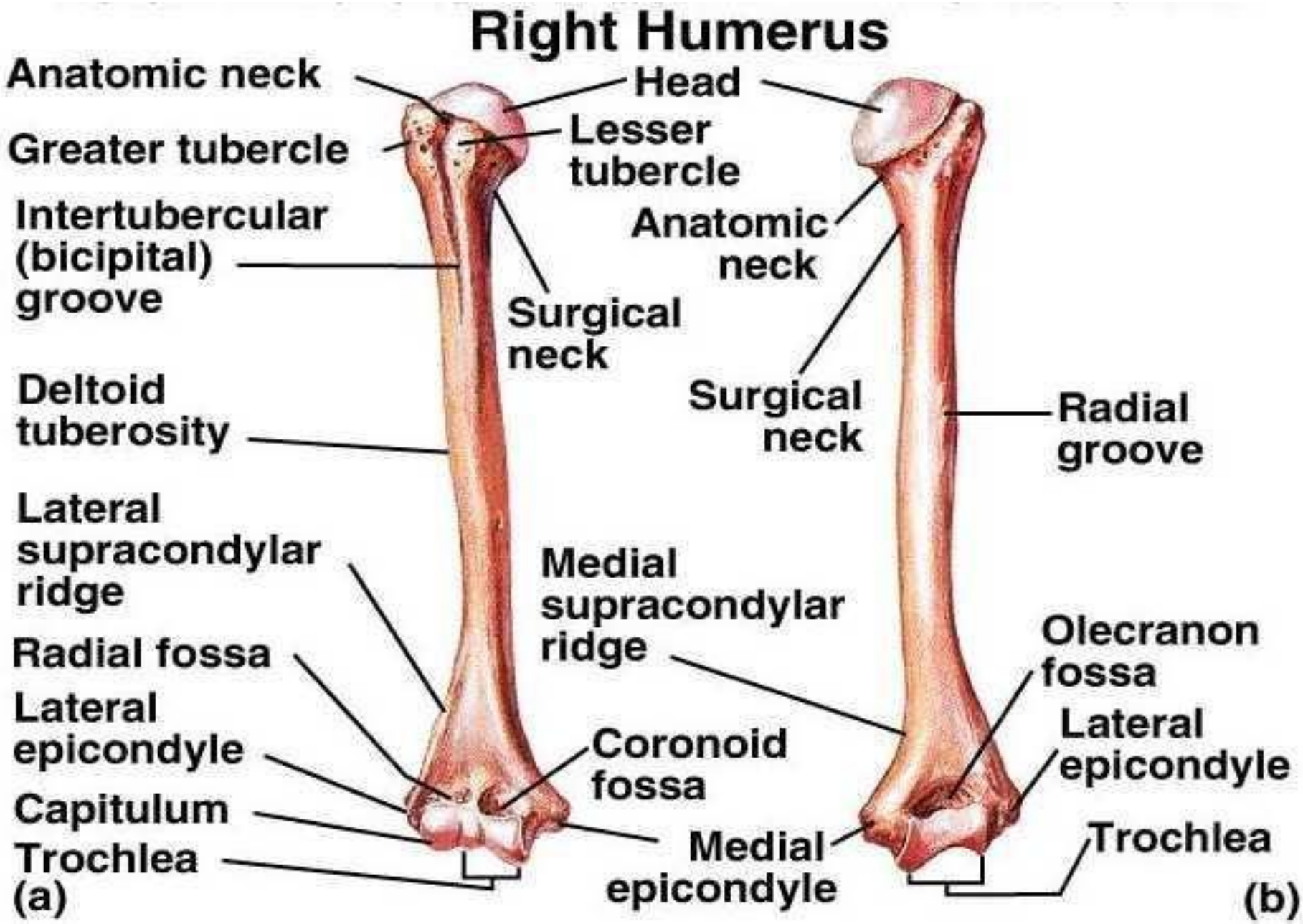
- Superior angle
- Inferior angle
- Lateral angle
- Medial border
- Superior border
- Lateral border
- Spine of scapula

Palpation of the Scapula

Before palpating the scapula, we are going to first locate a landmark at the base of your neck: Spinous process of C7 This is the most prominent landmark in your neck and a common starting point for most palpation trails.

C7 Spinous Process

- Partner seated
- Starting Landmark: Place two finger pads on the **external occipital protuberance** and slide inferiorly along the cervical spinous processes.
- At base of neck, finger will bump into a prominent spinous process
- Place one finger on C6 and one on C7 to distinguish between them. C6 will feel as if it disappears with full neck extension
- Reposition fingers if both stay palpable under your fingers. Description:

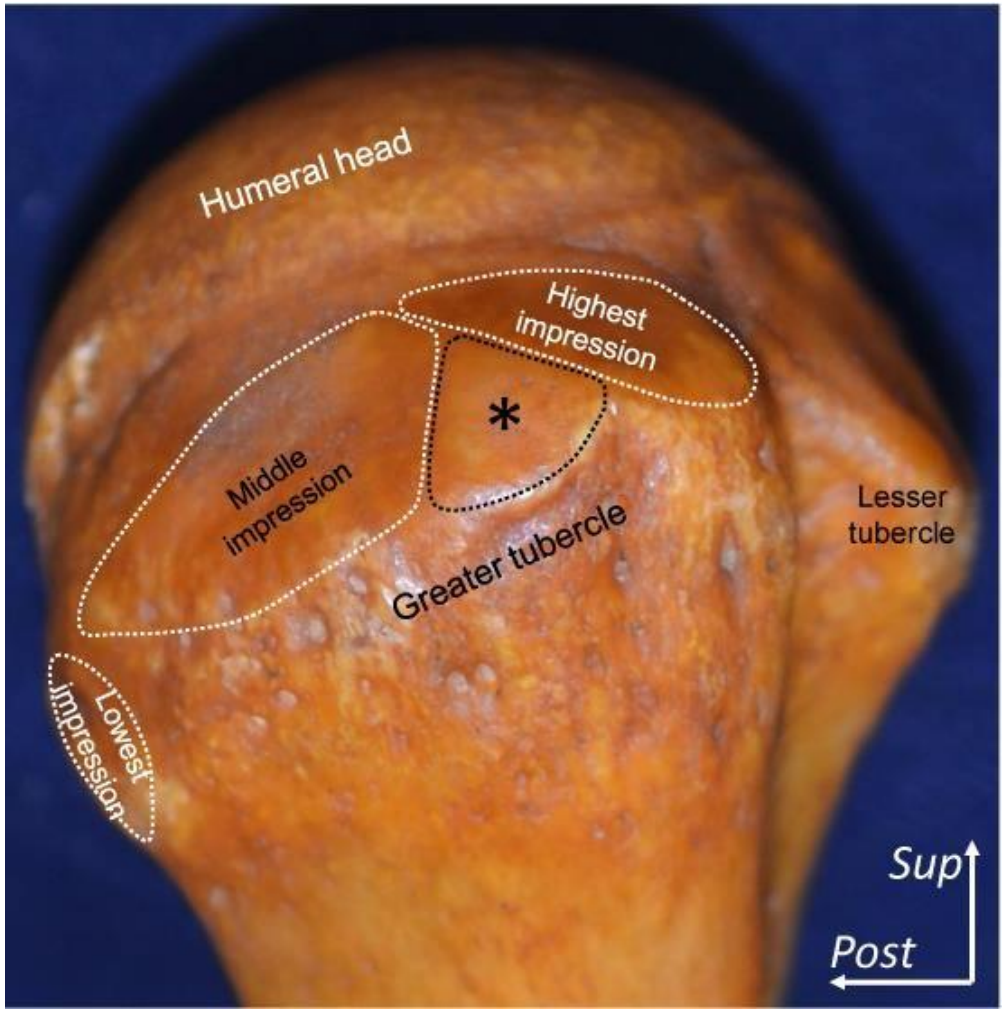

Right Humerus
Anatomic neck
Head
Greater tubercle
Lesser tubercle
Intertubercular (bicipital) groove
Surgical neck
Deltoid tuberosity
Lateral supracondylar ridge
Radial fossa
Lateral epicondyle
Capitulum
Trochlea
(a)
Coronoid fossa
Medial epicondyle
Anatomic neck
Surgical neck
Radial groove
Medial supracondylar ridge
Olecranon fossa
Lateral epicondyle
Trochlea
(b)

Humerus – Arm Bone

- A long bone between the scapula and the elbow
- Has a head at it's proximal end and 2 condyles at it's distal end
- **Components:**
  - **Head** – Spherical shaped, articulates with the glenoid fossa of the scapula to make up the glenohumeral joint
  - **Anatomical Neck** – A demarcation that circumscribes the head of the humerus
  - **Greater Tubercle** – Large lateral projection at the proximal end of the humerus, has 3 facets for the following muscle insertions:

THE HUMERUS

- GREATER TUBERCLE FACETS
  - <u>Superior Facet</u> = **S**upraspinatus muscle
  - <u>Middle Facet</u> = **I**nfraspinatus muscle
  - <u>Inferior Facet</u> = **T**eres Minor muscle



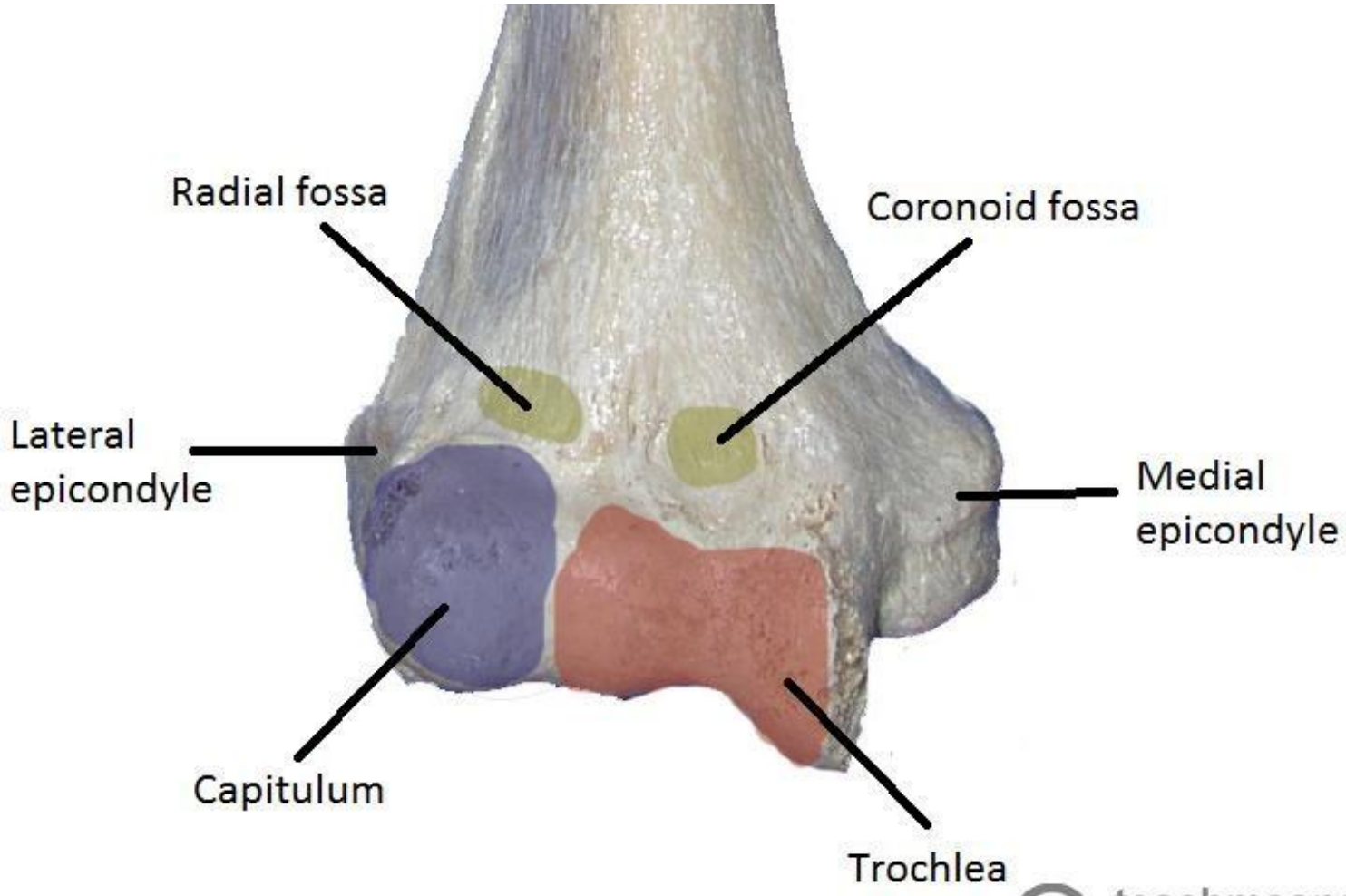
Humerus

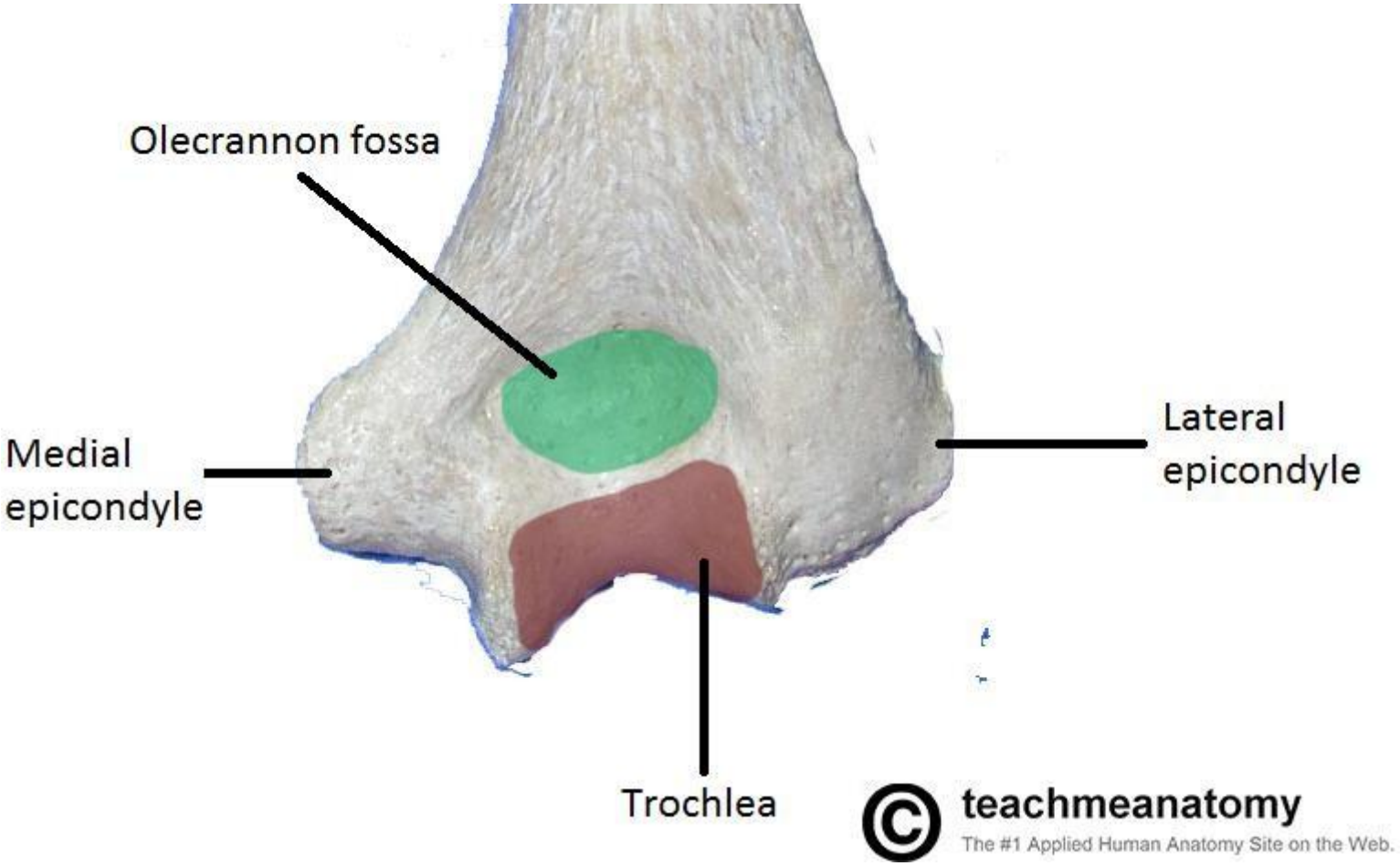
- **Lesser Tubercle** – An anterior projection, attachment site for the Subscapularis muscle
- **Surgical Neck** – Located where the tubercle meets the shaft of the humerus
- **Crest of the Lesser Tubercle** – aka the medial lip of the intertubercular groove
- **Crest of the Greater Tubercle** – aka the lateral lip of the intertubercular groove
- **Intertubercular Groove aka Bicipital Groove** – Attachment site for the Latissimus Dorsi muscle, the groove is created for the passage of the long head of the Biceps Brachii muscle

Humerus

- **Shaft** – Roughly cylindrical, has 2 important landmarks
- **Deltoid Tuberosity** - On the lateral aspect of the shaft for the insertion of the deltoid muscle
- **Radial Groove - aka Spiral Groove**, on the posterior aspect of the shaft of the humerus for the passage of the radial nerve and posterior branches of the brachial artery (found between the medial and lateral heads of the triceps brachii muscle)
- **Medial and Lateral Condyle –** rounded end of the distal humerus, each condyle has a variety of unique features – MEDIAL CONDYLE IS LARGER THAN THE LATERAL CONDYLE

HUMERUS – DISTAL




Olecrannon fossa
Medial epicondyle
Lateral epicondyle
Trochlea
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DISTAL END OF HUMERUS

MEDIAL CONDYLE	LATERAL CONDYLE
MEDIAL SUPRACONDYLAR RIDGE	LATERAL SUPRACONDYLAR RIDGE
MEDIAL EPICONDYLE *groove for the ulnar nerve	LATERAL EPICONDYLE
TROCHLEA	CAPITULUM
CORONOID FOSSA	RADIAL FOSSA

POSTERIORLY THE DISTAL HUMERUS IS MADE UP OF :
TROCHLEA AND OLECRANON FOSSA