

## Bones

- I. Sternum (G. sternon, the chest)
  - A. Manubrium (L. handle)
    - attachments – pectoralis major m.
    - 1. Clavicular notch (L. clavicular, small key)
      - function – articulates with clavicle
    - 2. Jugular notch (L. jugulum, throat)
  - B. Body
    - attachments – pectoralis major m.
  - C. Xiphoid process (G. xiphos, sword)

### II. Clavicle

- A. Acromial end (G. akromion, tip + osmos, shoulder)
  - function – articulates with acromion
- B. Sternal end
  - function – articulates with sternum
- C. Superior surface
  - attachments – sternocleidomastoid muscle m.
- D. Inferior surface
  - 1. Conoid tubercle (cone shaped; L. tuber, swelling)
    - attachments – conoid lig.
  - 2. Trapezoid line
    - attachments – trapezoid lig.
- E. Anterior border
  - attachments – pectoralis major & deltoid m.
- F. Posterior border
  - attachments – trapezius m.

### III. Scapula

- A. Borders
  - 1. Medial
    - attachments – rhomboids & serratus anterior m.
  - 2. Superior
    - attachments – omohyoid m. & transverse scapular lig.
      - a. Suprascapular notch (indentation at the edge of a bone)
        - function – transmits suprascapular n.
  - 3. Lateral
    - attachments – teres minor m.
- B. Angles
  - 1. Superior
    - attachments – levator scapulae m.
  - 2. Inferior
    - attachments – teres major m.
  - 3. Lateral
- C. Fossa (L. trench or ditch)
  - 1. Subscapular
    - attachments – subscapularis m.
  - 2. Supraspinous
    - attachments – supraspinatus m.
  - 3. Infraspinous
    - attachments – infraspinatus m.
- D. Spine (short, sharp thorn-like process of a bone)
  - 1. Crest (L. crista, bony ridge)
    - attachments – trapezius m.
  - 2. Acromion
    - attachments – deltoid m.
      - function – articulates with clavicle
  - 3. Spinoglenoid notch
    - function – transmits the suprascapular n., a. & v.
- E. Glenoid cavity (G. glenoeides, resembles eye)

function – articulates with head of humerus

1. Supraglenoid tubercle (L. tuber, swelling)

attachments – biceps (long) m.

2. Infraglenoid tubercle

attachments – triceps (long) m.

- F. Coracoid process (G. korakodes, like a raven's beak)

attachments – conoid & trapezoid lig., pectoralis minor, coracobrachialis & biceps (short) m.

#### IV. Humerus (L. shoulder)

##### A. Proximal end

1. Head

function – articulates with the glenoid cavity

2. Anatomical neck

attachments – glenoid capsule & glenohumeral lig.

3. Greater tubercle

attachments – supraspinatus, infraspinatus & teres minor m.

4. Lesser tubercle

attachments – subscapularis m.

5. Intertubercular sulcus (L. a furrow or ditch)

function – accommodates the biceps long head tendon

- a. Lateral lip

attachments – pectoralis major m.

- b. Medial lip

attachments – teres major & latissimus dorsi m.

##### B. Shaft

attachments – brachialis, coracobrachialis, triceps (lateral) & triceps (medial)

1. Surgical neck

2. Sulcus for the radial nerve (or spiral groove)

3. Deltoid tuberosity (G. deltoeides, shaped like the letter delta)

attachments – deltoid m.

##### C. Distal end

1. Capitulum (L. caput, head)

function – articulates with radius

2. Trochlea (L. pulley)

function – articulates with trochlear notch of ulna

3. Lateral epicondyle (G. kondylos, knuckle)

attachments – common extensor tendon & supinator m.

- a. Lateral supracondylar ridge

attachments – extensor carpi radialis longus & brachioradialis m.

4. Coronoid fossa (G. korone, hooked or curved)

function – accommodates the coronoid process

5. Medial epicondyle

attachments – common flexor tendon & pronator teres m.

- a. Medial supracondylar ridge

6. Olecranon fossa (G. olene, ulna + kranion, head)

function – accommodates the olecranon process of the ulna

#### V. Radius (L. spoke of wheel)

##### A. Proximal end

1. Head

function – articulates with capitulum of humerus

2. Neck

3. Radial tuberosity

attachments – biceps m.

##### B. Shaft

attachments – abductor pollicis longus, extensor pollicis brevis, flexor pollicis longus, pronator teres & supinator m.

1. Interosseous border

attachments – interosseous membrane

##### C. Distal end

attachments – pronator quadratus m.

1. Carpal articular surface

2. Styloid process (G. stylos, pillar or post)

- attachments – brachioradialis  
 3. Dorsal tubercle  
function – redirects tendon of extensor pollicis longus m.
- VI. Ulna (L. elbow)**
- A. Proximal end  
attachments – supinator m.
    - 1. Olecranon process  
attachments – triceps m.
    - 2. Trochlear notch  
function – articulates with trochlea
    - 3. Coronoid process  
attachments – brachialis & pronator teres m.
    - 4. Radial notch  
function – articulates with the head of the radius
    - 5. Ulnar tuberosity  
attachments – brachialis m.
  - B. Shaft  
attachments – abductor pollicis longus, extensor indicis, extensor pollicis longus, flexor carpi ulnaris & flexor digitorum profundus m.
    - 1. Interosseous border  
attachments – interosseous membrane
  - C. Distal end  
attachments – pronator quadratus m.
    - 1. Styloid process
- VII. Carpals (G. karpos, wrist)**
- A. Scaphoid (G. skaphe, skiff, boat)
    - 1. Radial surface
    - 2. function – articulates with radius
  - B. Lunate (L. luna, moon)
    - 1. Radial surface  
function – articulates with radius
  - C. Triquetral (L. triquetrus, triangular)
  - D. Pisiform (L. pisum, pea)  
attachments – abductor digiti minimi, flexor carpi ulnaris m. & flexor retinaculum
  - E. Trapezium (G. trapezion, four sided)  
attachments – abductor pollicis brevis, abductor pollicis longus, flexor pollicis brevis, opponens pollicis m. & flexor retinaculum
  - F. Trapezoid (G. trapezoides, table shaped)
  - G. Capitate  
attachments – adductor pollicis m.
  - H. Hamate (L. hook)
    - 1. Hamulus  
attachments – fl. digiti minimi, opponens digiti minimi m. & flexor retinaculum
- VIII. Metacarpal**
- A. Head  
function – articulates with phalangeal base
  - B. Shaft  
attachments – adductor pollicis (2–3), dorsal interossei (2–5), opponens digiti minimi (5), opponens pollicis (1) & palmar interossei (2,4,5) m.
  - C. Base  
function – articulates with carpal  
attachments – abductor pollicis longus (1), extensor carpi radialis brevis (3), extensor carpi radialis longus (2), extensor carpi ulnaris (5) & flexor carpi radialis (2–3) m.
- IX. Phalanges (G. phallanx, line of soldiers)**  
attachments – extensor digitorum (2–5), extensor digiti minimi (5) & extensor indicis (2) m.
- A. Head
  - B. Shaft  
attachments – flexor digitorum superficialis (2–5) m.
  - C. Base  
attachments – abductor digiti minimi (5), abductor pollicis brevis (1), adductor pollicis (1), dorsal interossei (2–4), extensor pollicis brevis (1), extensor pollicis longus (1), flexor digiti minimi (5), flexor

*digitorum profundus (2–5), flexor pollicis brevis & flexor pollicis longus (1) m.*