

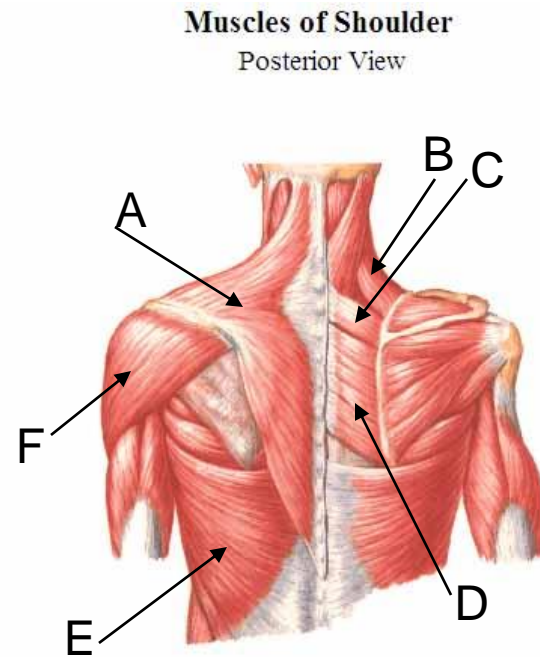
Anatomy and Physiology II

Shoulder Girdle

Review

Questions From Last Lecture

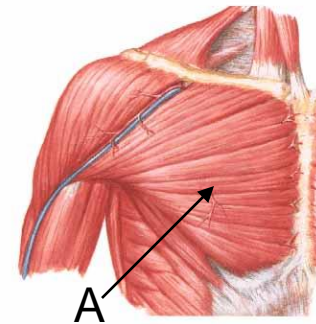
- Can you identify the following muscles?
 - Trapezius
 - A
 - Rhomboid major
 - D
 - Rhomboid minor
 - C
 - Which is more superficial, rhomboids or trapezius?
 - Trapezius
 - Levator scapula
 - B
 - Deltoids
 - F
 - Latissimus dorsi
 - E



Questions From Last Lecture

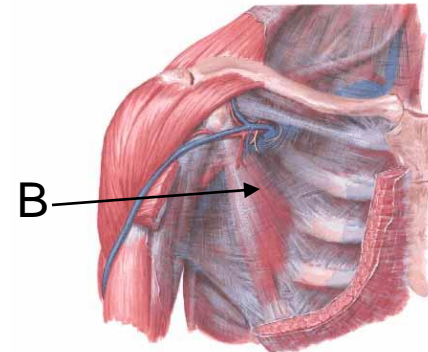
- What structures can you recognize in this image that were in the last?
 - Deltoids and Trapezius
- Can you identify the following muscles?
 - Pectoralis major
 - A
 - Pectoralis minor
 - B
 - Which is the deeper of the two?
 - Pectoralis minor

Muscles of Shoulder
Anterior View




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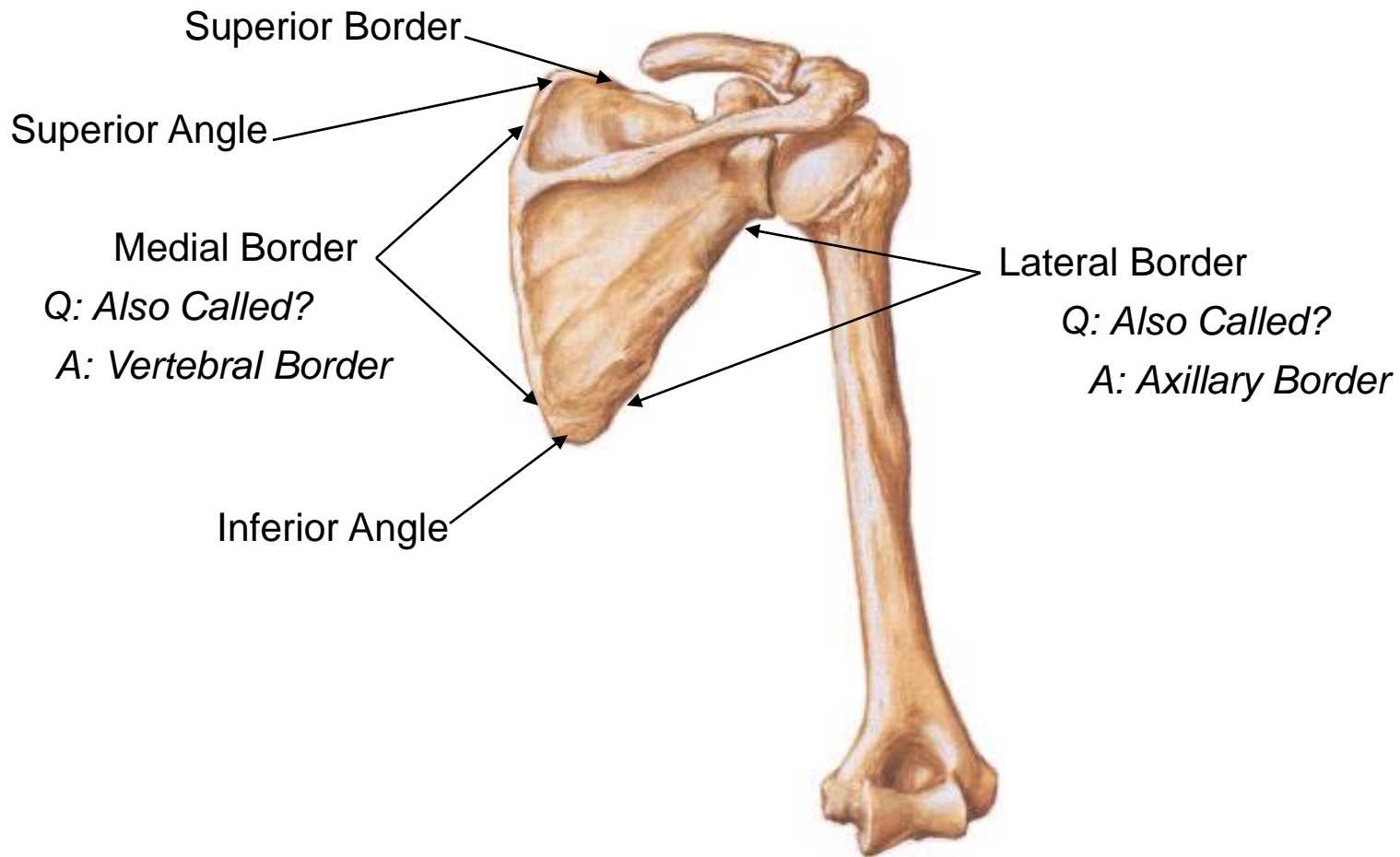
Pectoral, Clavipectoral and Axillary Fasciae
Anterior View




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Humerus and Scapula - Borders

Posterior View



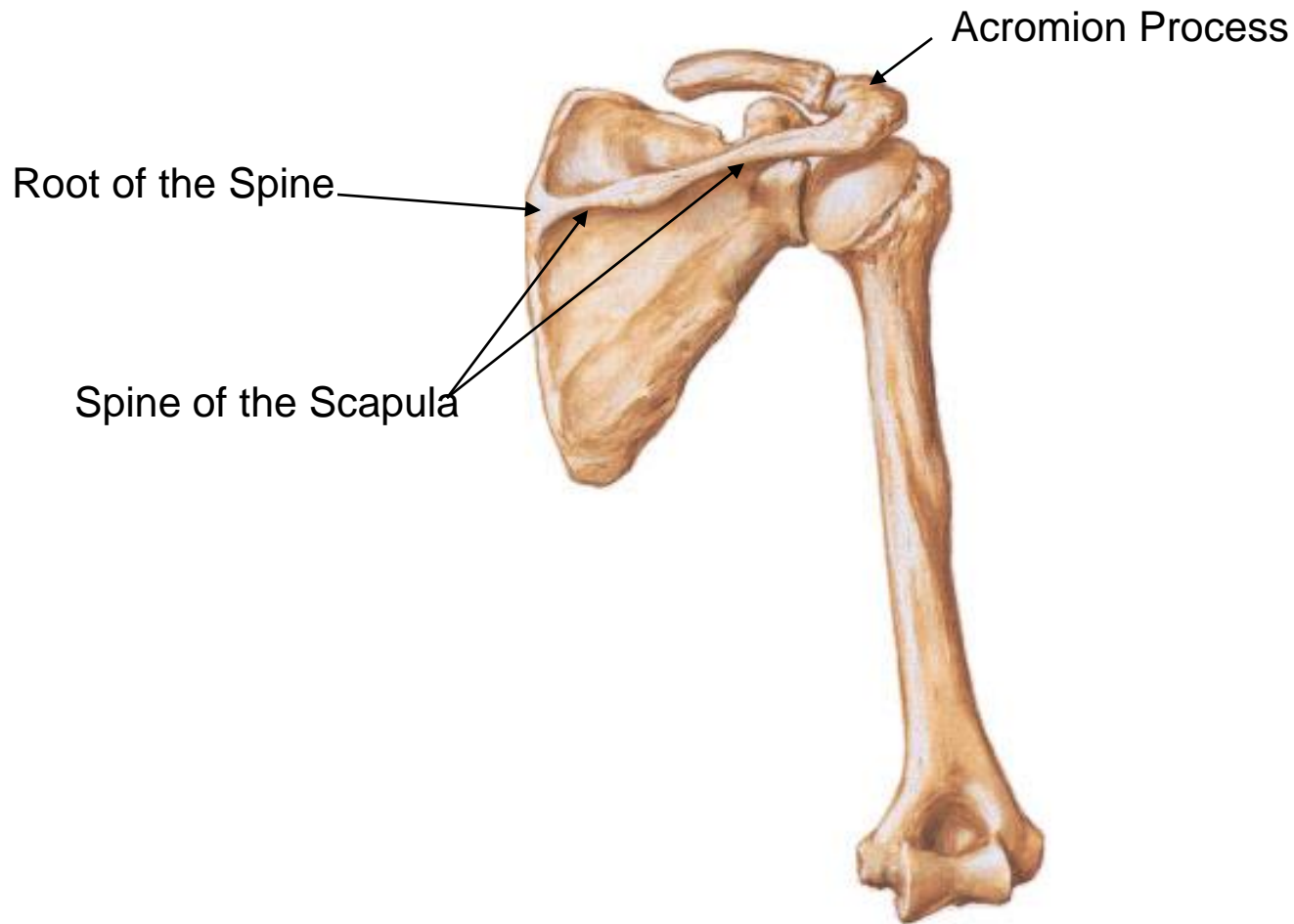
Humerus and Scapula - Borders

Posterior View

- Which two muscles introduced last week had attachments on the medial border of the scapula?
 - Rhomboids
 - Levator scapula
- Rhomboids
 - From what bones and landmarks on the axial skeleton did the rhomboids attach?
 - Spinous processes of the vertebra
 - What are the specific attachments?
 - Spinous processes of C7-T5 *to the* medial border of the scapula from the root of the spine of the scapula to the inferior angle
 - What was its action?
 - Retraction of the scapula (*also elevates and downwardly rotates the scapula*)
- Levator Scapula
 - From what bones and landmarks on the axial skeleton did the levator scapula attach?
 - Transverse processes of the vertebra
 - What are the specific attachments?
 - Transverse processes of C1-C4 *to the* medial border of the scapula from the root of the spine of the scapula to the superior angle
 - What was its action?
 - Elevation of the scapula (*also downwardly rotates the scapula*)



Humerus and Scapula - Processes Posterior View



Humerus and Scapula

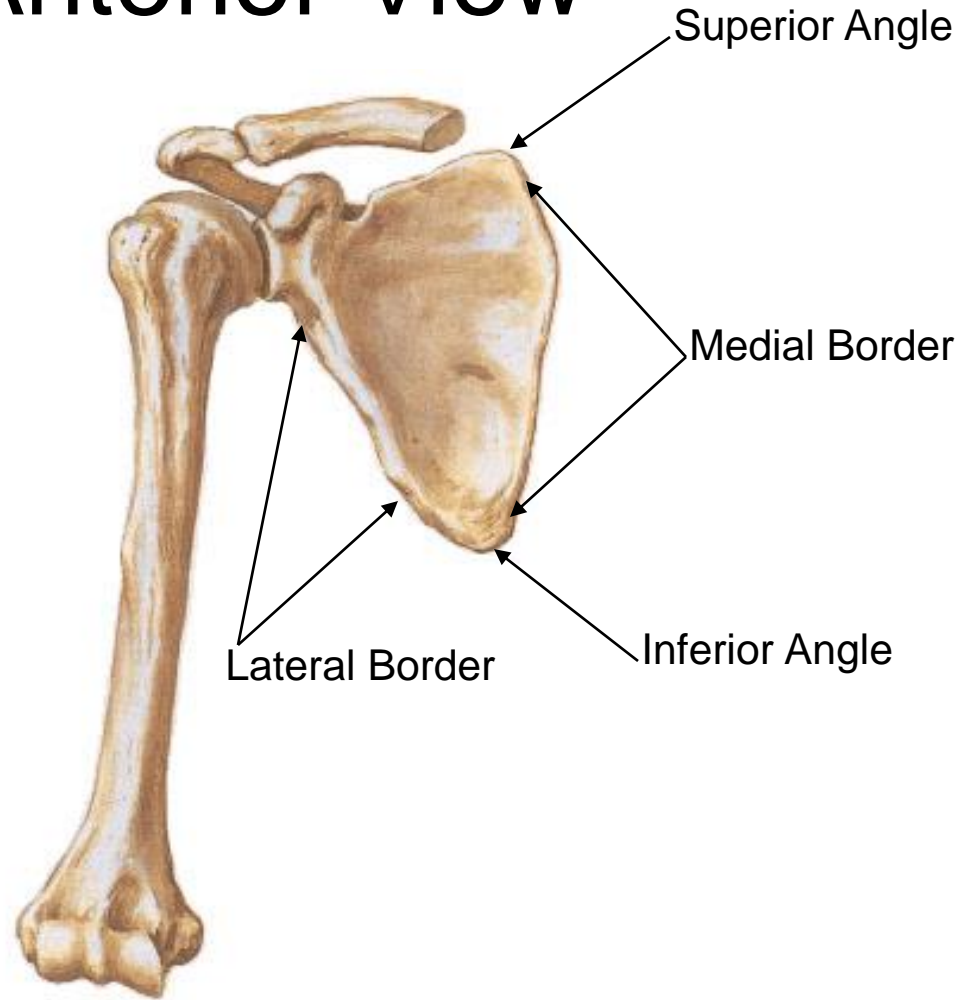
Posterior View

- What muscles introduced had attachments on the acromion and spine of the scapula?
 - Trapezius and Deltoids
- What might be said about the appendicular attachment (insertion) of the trapezius and the proximal attachment (origin) of the deltoids?
 - They are the same
- Trapezius
 - What are its attachments?
 - External occipital protuberance (EOP), medial 1/3rd of the superior nuchal line, nuchal ligament, spinous processes of C7-T12 *to the lateral 1/3rd of the clavicle, acromion process, and spine of the scapula*
 - What are its actions?
- Deltoids
 - What are its attachments?
 - **Lateral 1/3rd of the clavicle, acromion process, and spine of the scapula** *to the* deltoid tuberosity of the humerus
 - What are its actions?

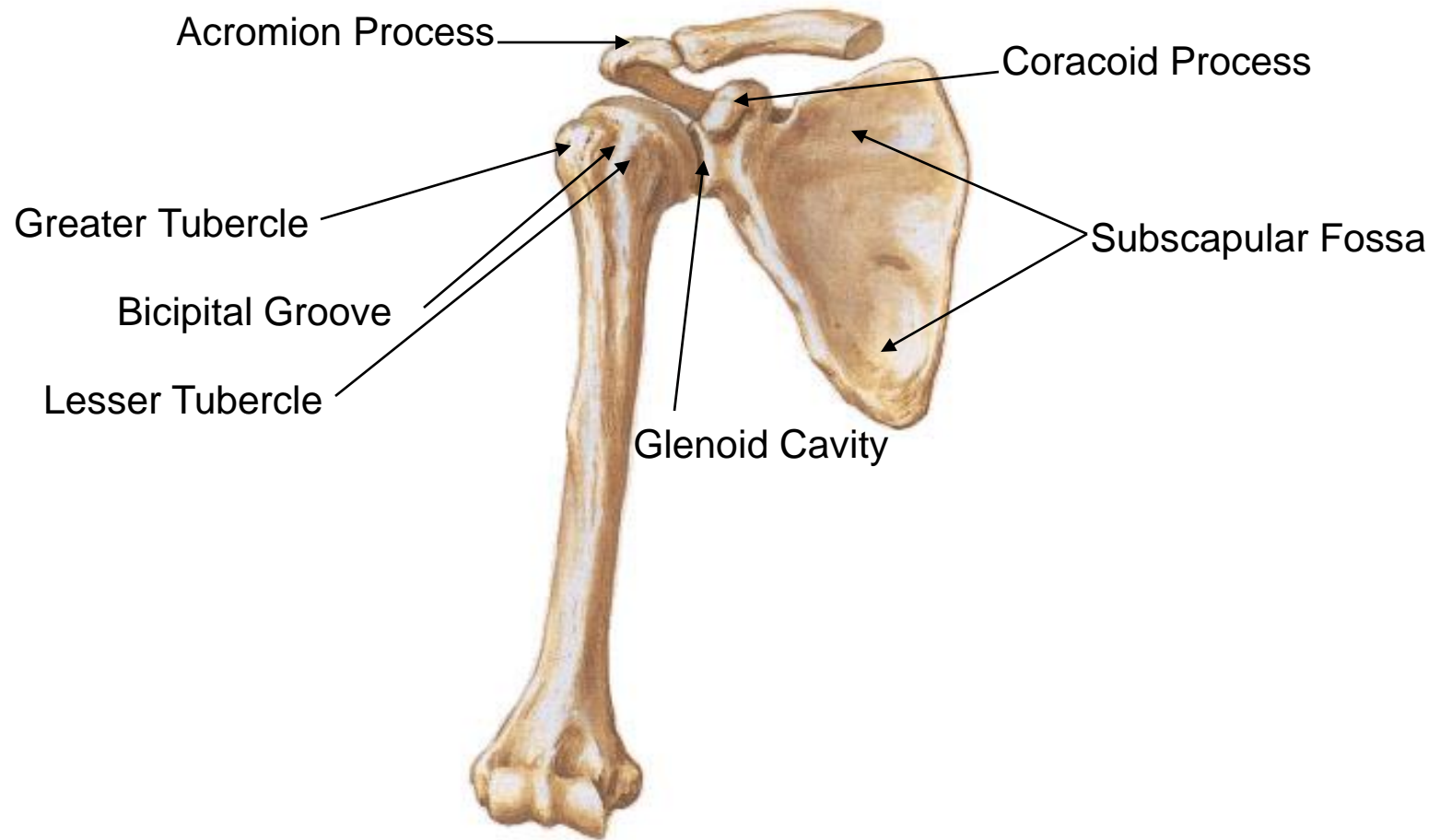


Humerus and Scapula - Borders

Anterior View



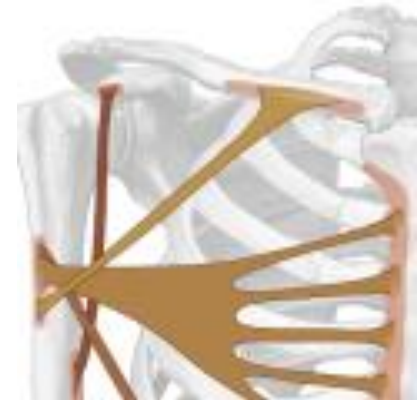
Humerus and Scapula – Processes and Depressions Anterior View



Humerus and Scapula

Anterior View

- Pectoralis Major
 - Is it superficial or deep to the pectoralis minor?
 - Superficial
 - What are its attachments?
 - Medial half of the clavicle, sternum, and costal cartilage of the ribs *to the* lateral lip of the bicipital groove of the humerus
 - What are its major actions?
 - Entire muscle: adducts, medially rotates, and horizontally flexes the arm at the shoulder joint; protracts the scapula
 - *Clavicular head: flexes the arm at the shoulder joint*
 - *Sternocostal head: extends the arm at the shoulder joint (from position of flexion), depresses the scapula*



Humerus and Scapula

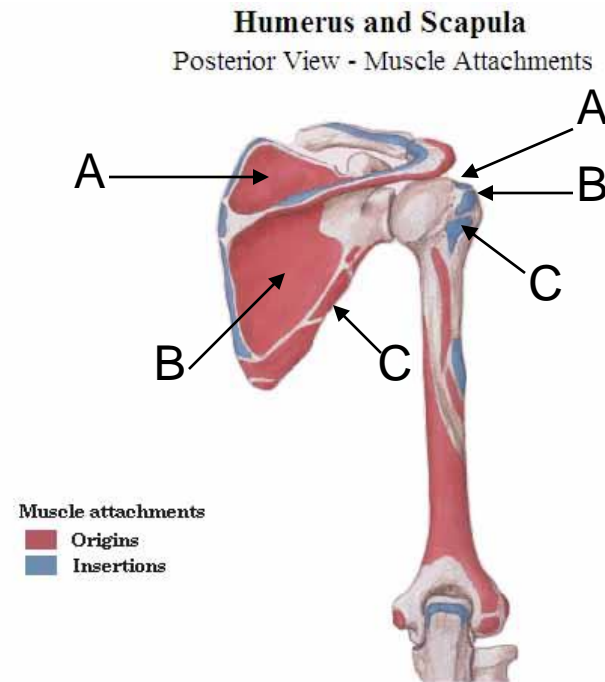
Anterior View

- What muscle introduced attaches to the coracoid process of the scapula?
 - Pectoralis minor
 - Is it deep or superficial to the pectoralis major?
 - Deep
 - What are its attachments?
 - » Ribs 3-5 *to the* coracoid process of the scapula
 - What are its action on the ribs?
 - It elevates ribs 3-5 (and it is often considered an accessory breathing muscle)



Rotator Cuff Muscle Review

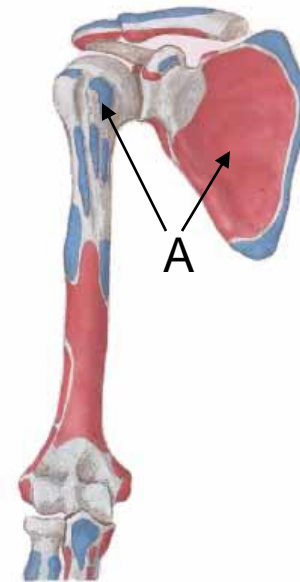
- Rotator Cuff Muscles?
 - What are the four rotator cuff muscles
 - Supraspinatus
 - Infraspinatus
 - Teres Minor
 - Supscapularis
 - Which origin and insertion is indicated by A
 - Supraspinatus
 - What bony landmark does it attach to on the scapula?
 - Supraspinous fossa
 - What is its primary action?
 - Abduction of the shoulder
 - Which by B
 - Infraspinatus
 - What bony landmark does it attach to on the scapula?
 - Infraspinous fossa
 - What is its primary action?
 - Lateral rotation of the shoulder
 - And by C
 - Teres Minor
 - What is its primary action?
 - Lateral Rotation of the shoulder



Rotator Cuff Muscle Review

- Rotator cuff muscles (cont.)
 - What origin and insertion is indicated by A
 - Subscapularis
 - What bony landmark does it attach to on the scapula?
 - Subscapular fossa
 - What is its primary action?
 - Medial rotation of the shoulder

Humerus and Scapula
Anterior View - Muscle Attachments



Muscle attachments
■ Origins
■ Insertions

Rotator Cuff Muscle Review

- Rotator cuff muscles (cont.)
 - Where do supraspinatus, infraspinatus and teres minor attach to?
 - Greater tubercle
 - Where does subscapularis attach to?
 - Lesser tubercle
 - Which two perform lateral rotation at the shoulder?
 - Infraspinatus and teres minor
 - Which does medial rotation?
 - Subscapularis
 - Which does abduction?
 - Supraspinatus

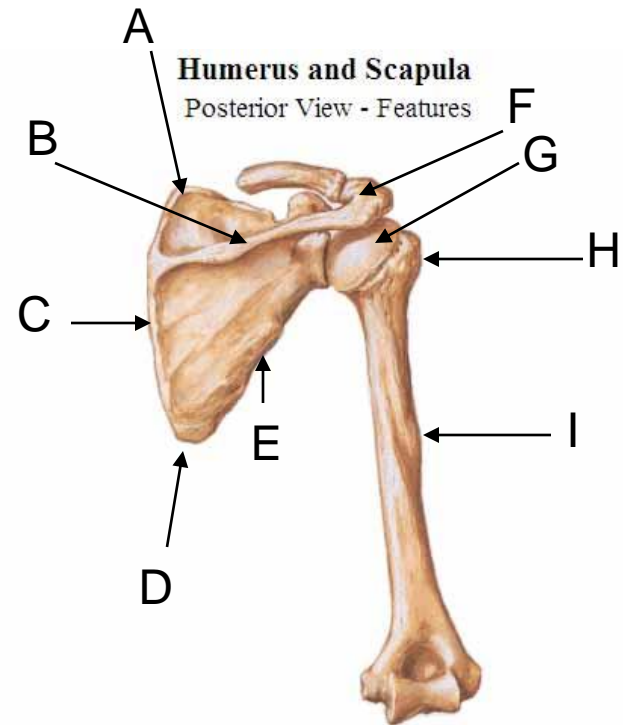
Anatomy and Physiology II

Review

Bones of the Upper Extremities

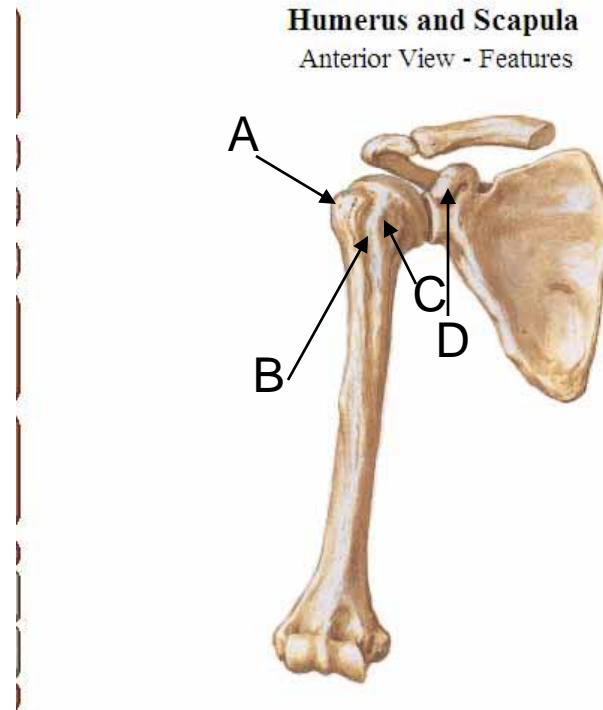
Questions From Shoulder Girdle Lecture

- Can you name the following structures?
 - F
 - Acromion
 - B
 - Spine of the Scapula
 - C
 - Medial (Vertebral) Border
 - E
 - Lateral (Axillary) Border
 - A
 - Superior Angle
 - D
 - Inferior Angle
 - G
 - Head of the Humerus
 - H
 - Greater Tubercle of Humerus
 - I
 - Deltoid Tuberosity



Questions From Shoulder Girdle Lecture

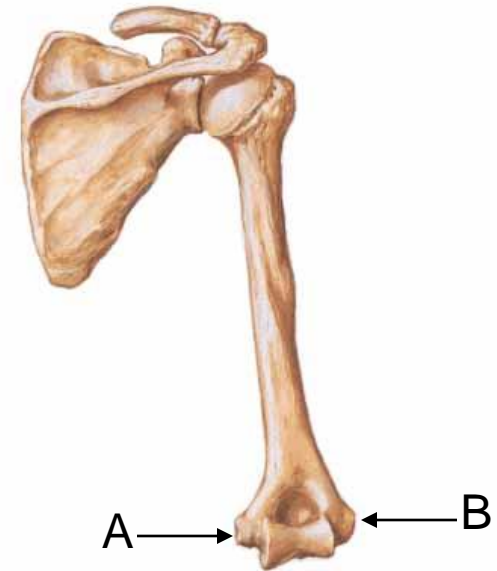
- Would you be able to find the many of the same landmarks on this view (angles, borders, etc)?
- Can you name the following?
 - D
 - Coracoid process of scapula
 - C
 - Lesser Tubercle
 - A
 - Greater Tubercle
 - B
 - Bicipital Groove
(Intertubercular groove)



Questions From Upper Extremities Lecture

- Can you name the following structures?
 - B
 - Lateral epicondyle
 - A
 - Medial epicondyle

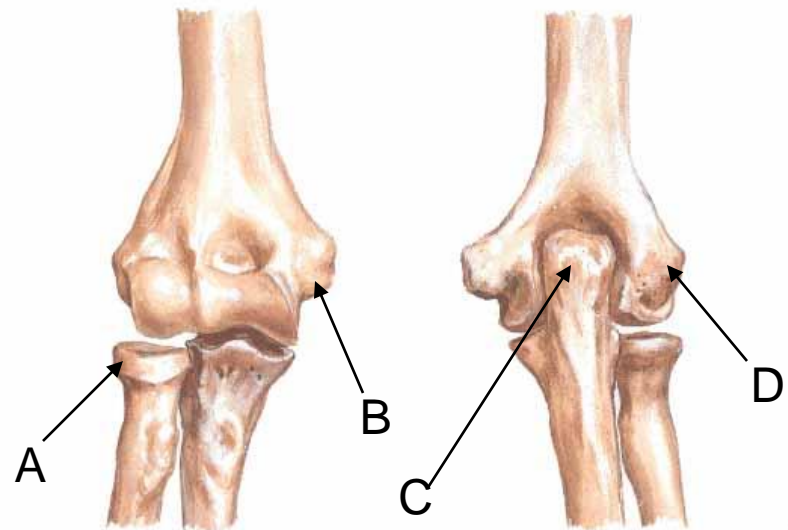
Humerus and Scapula
Posterior View - Features



Questions From Upper Extremities Lecture

- Can you name the following landmarks?
 - C
 - Olecranon process
 - A
 - Head of the radius
 - B
 - Medial epicondyle
 - D
 - Lateral epicondyle

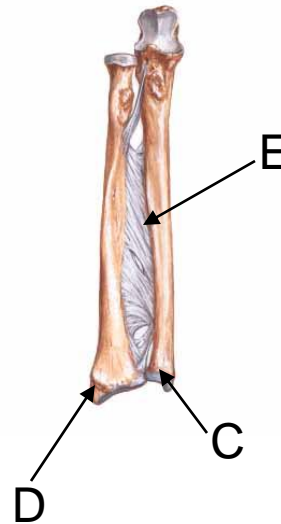
Bones of Elbow in Extension
Anterior and Posterior Views



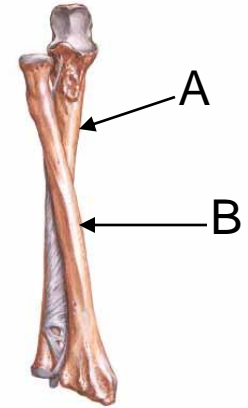
Questions From Upper Extremities Lecture

- Can you name the following bones and landmarks?
 - Which bone is A pointing to?
 - Ulna
 - Which bone is B pointing to?
 - Radius
 - C
 - Styloid process of the ulna
 - D
 - Styloid process of the radius
 - E
 - Interosseous membrane of forearm

Right Radius and Ulna in Supination
Anterior View



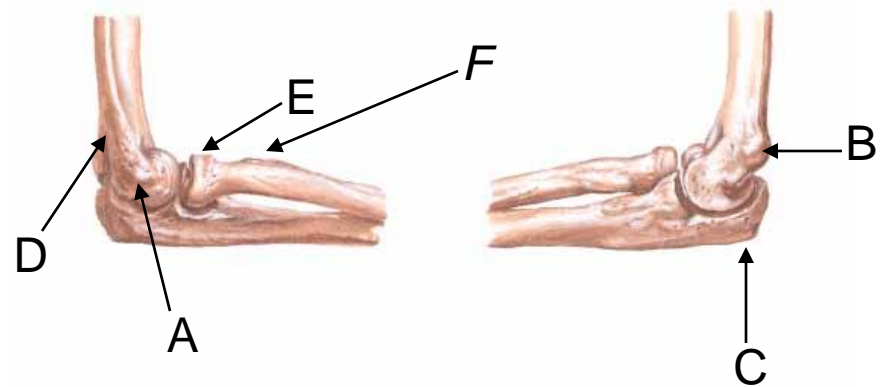
Right Radius and Ulna in Pronation
Anterior View



Questions From Upper Extremities Lecture

- Can you name the following bony landmarks?
 - Which landmark is A pointing to?
 - Lateral epicondyle of humerus
 - Which bone is B pointing to?
 - Medial epicondyle of humerus
 - C
 - Olecranon process of the ulna
 - D
 - Lateral supracondylar ridge of humerus
 - E
 - Interosseous membrane of forearm
 - F
 - *Radial tuberosity*

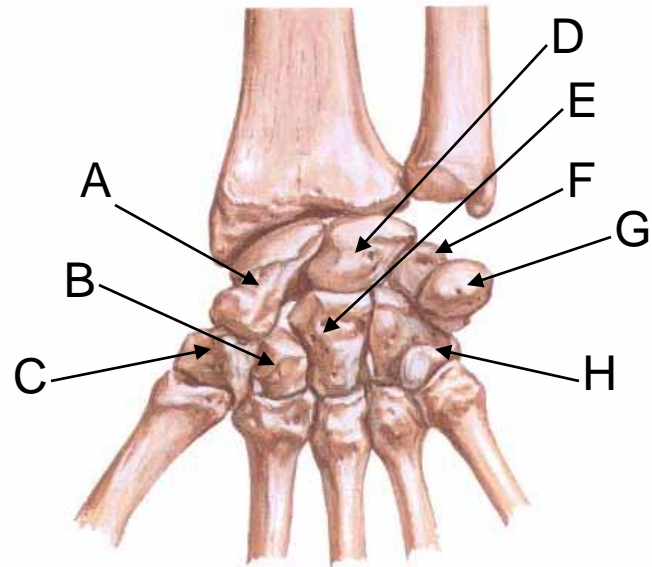
Bones of Elbow in 90° Flexion
Lateral and Medial Views



- Name the following carpal bones

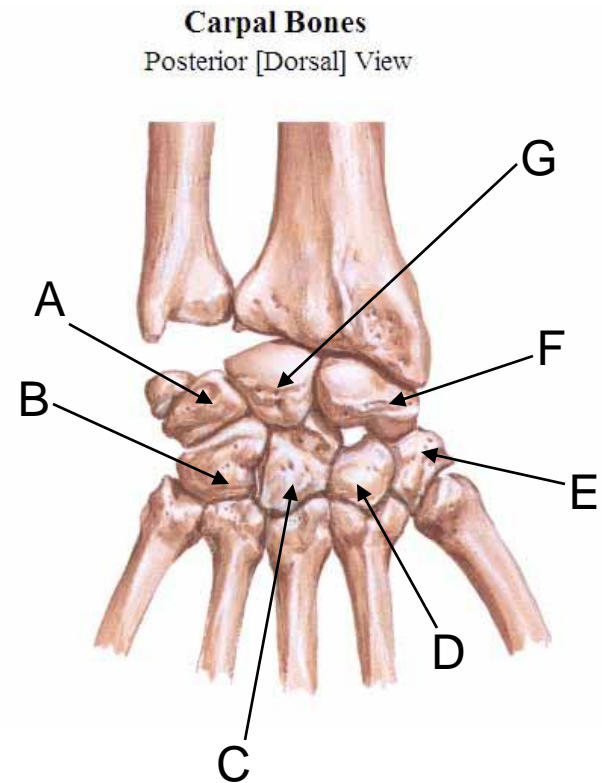
- A
 - Scaphoid
- B
 - Trapezoid
- C
 - Trapezium
- D
 - Lunate
- E
 - Capitate
- F
 - Triquetrum
- G
 - Pisiform
- H
 - Hamate

Carpal Bones
Anterior [Palmar] View



- Name the following carpal bones

- A
 - Triquetrum
- B
 - Hamate
- C
 - Capitate
- D
 - Trapezoid
- E
 - Trapezium
- F
 - Scaphoid
- G
 - Lunate



Anatomy and Physiology II

Review Upper Extremity Muscles

Identification and Application

- Can you name the following structures?

– A

- Medial Epicondyle of the humerus

– B

- Flexor carpi radialis

– C

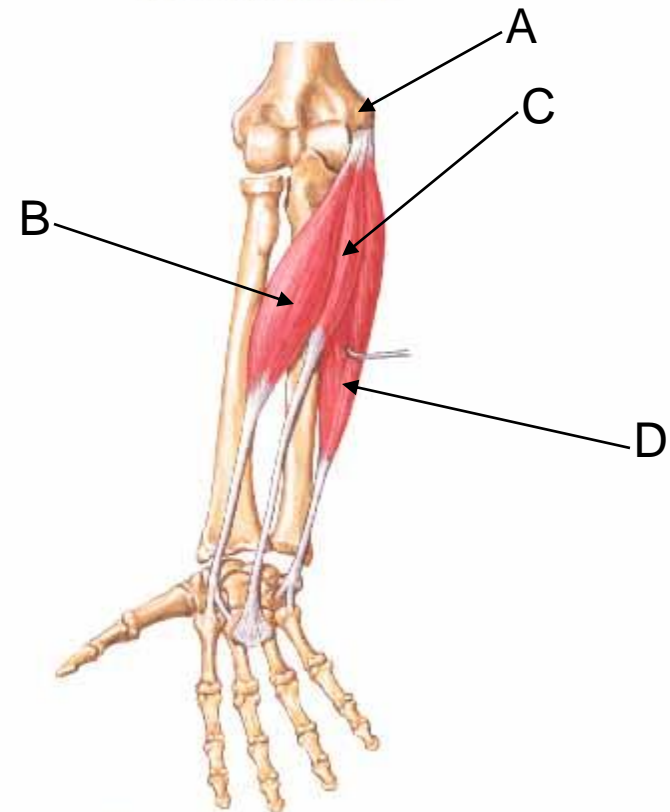
- Palmaris longus

– D

- Flexor carpi ulnaris

Individual Muscles of Forearm

Flexors of Wrist

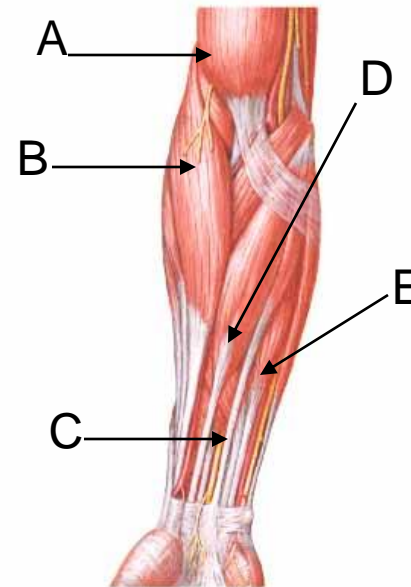


Right forearm: anterior (palmar) view

Identification and Application

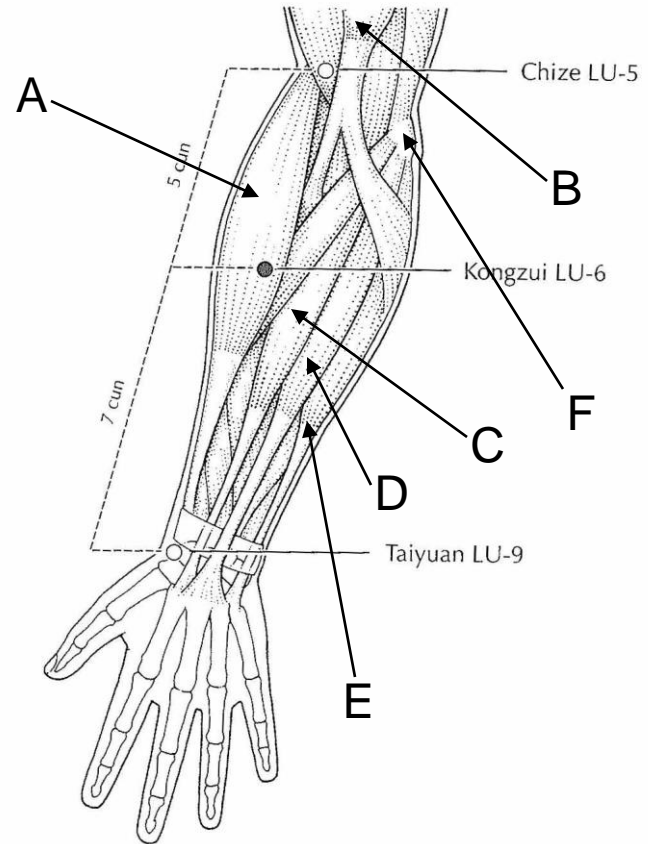
- Name the following muscles
 - A
 - Biceps brachii
 - B
 - Brachioradialis
 - C
 - Palmaris longus
 - D
 - Flexor carpi radialis
 - E
 - Flexor carpi ulnaris

Muscles of Forearm [Superficial Layer]
Anterior View



Identification and Application

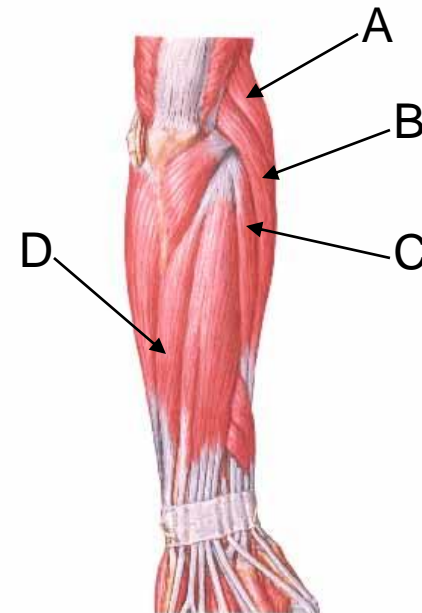
- Can you name the following structures?
 - A
 - Brachioradialis
 - B
 - Biceps brachii
 - C
 - Flexor carpi radialis
 - D
 - Palmaris longus
 - E
 - Flexor carpi ulnaris
 - What bony landmark is F pointing to?
 - Medial epicondyle



Identification and Application

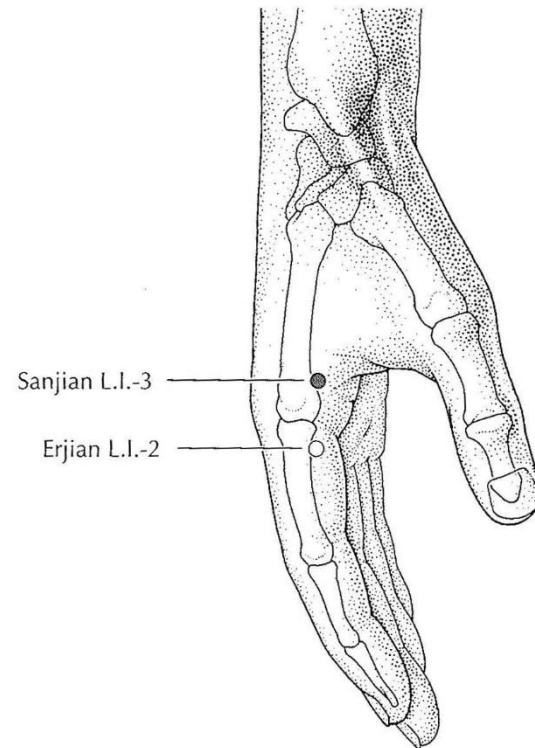
- Name the following structures
 - A
 - Brachioradialis
 - B
 - Extensor carpi radialis longus
 - C
 - Extensor carpi radialis brevis
 - D
 - Extensor carpi ulnaris

Muscles of Forearm [Superficial Layer]
Posterior View



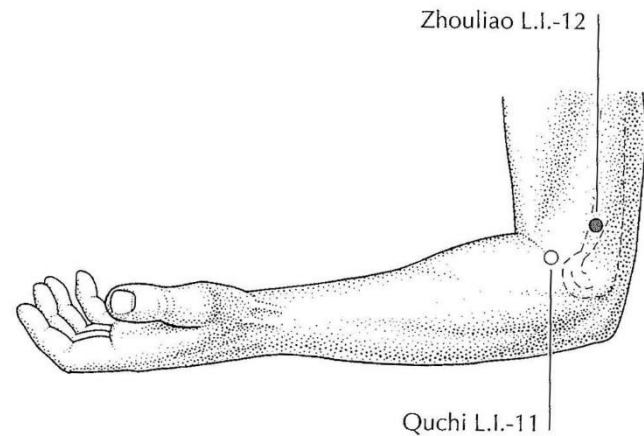
Identification and Application

- Which is true about LI-3?
 - It is directly proximal to the base of the second metacarpal
 - It is directly proximal to the base of the distal phalanx of the second finger
 - It is directly proximal to the head of the second metacarpal
 - It is directly proximal to the head of the first metacarpal



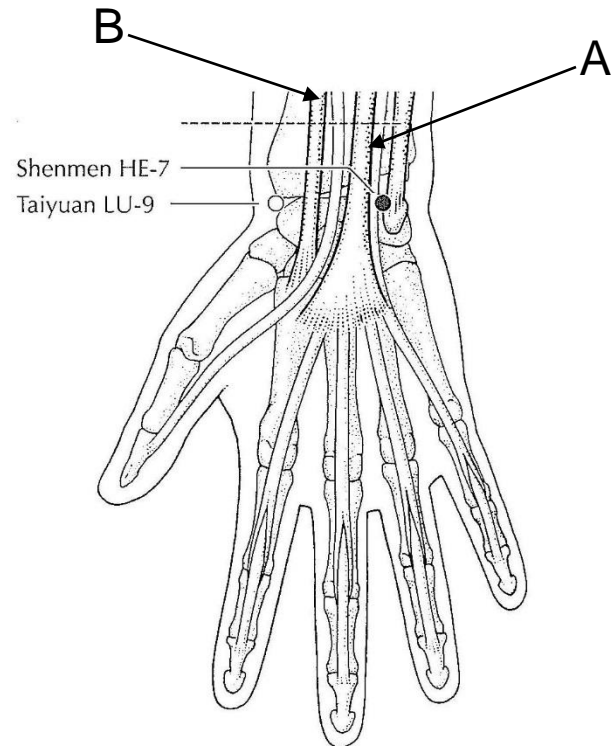
Identification and Application

- What boney landmark is LI-12 anterior to?
 - The lateral supracondylar ridge
- What landmark is LI-11 anterior to?
 - The lateral epicondyle



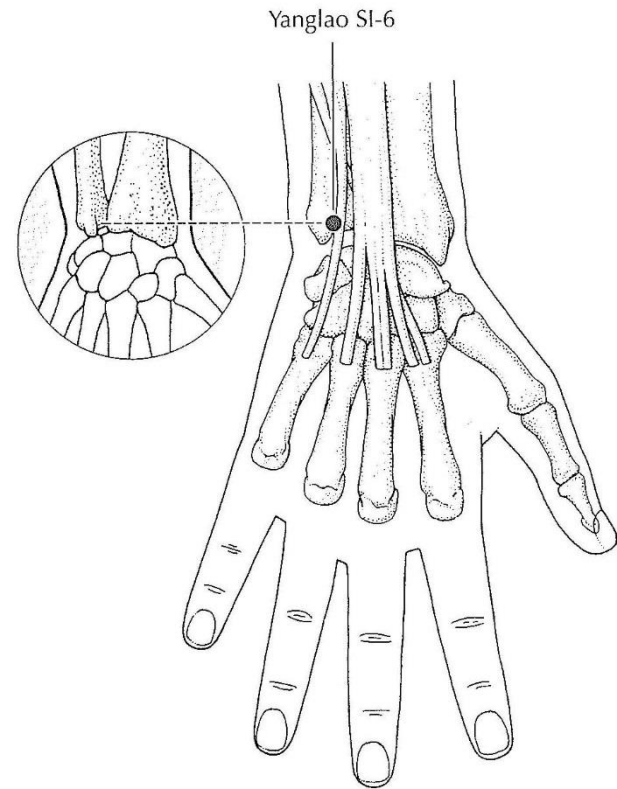
Identification and Application

- What point is described below?
- At the wrist joint, on the radial side of the flexor carpi ulnaris, in the depression at the proximal border of the pisiform bone.
 - HE-7
- What is A pointing to?
 - Palmaris longus
- What is B pointing to?
 - Flexor carpi radialis

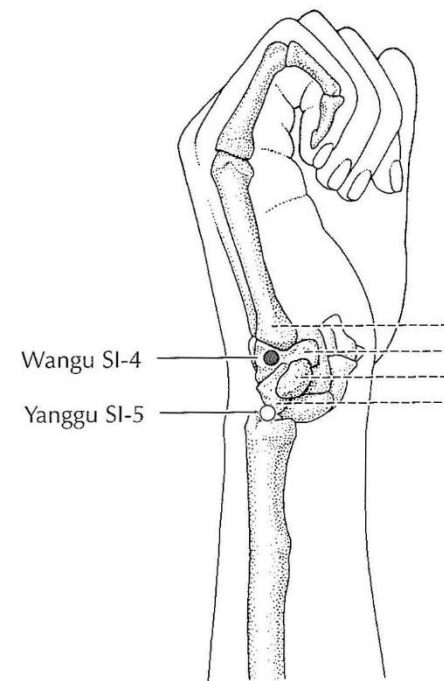


Identification and Application

- SI-6 is located on the radial side of what bony landmark?
 - Styloid process of the Ulna

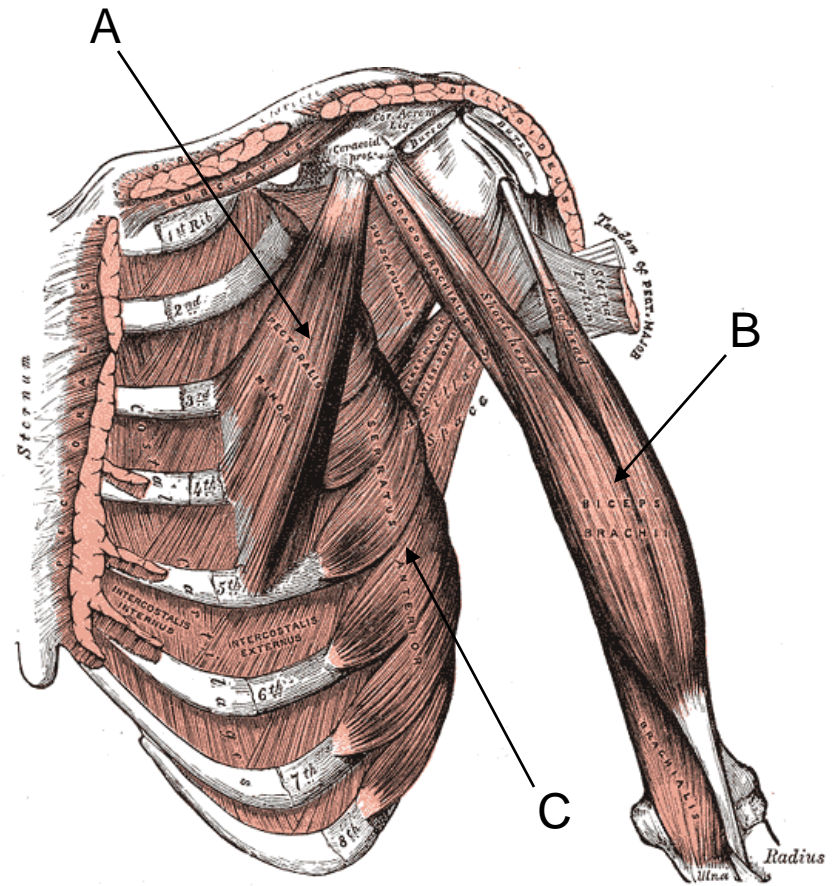


- SI-4 is located in the depression between the _____ of the fifth metacarpal and the _____ (carpal bone).
 - Base
 - Triquetrum
- What bone is it over?
 - Hamate
- SI-5 is located between the head of the _____ and the _____ (carpal bone).
 - Ulna
 - Triquetrum



Questions From Shoulder Girdle and Upper Extremities Lectures

- Can you name the following muscles?
 - A
 - Pectoralis minor
 - B
 - Biceps brachii
 - C
 - *Serratus anterior*



Questions From Shoulder Girdle and Upper Extremities Lectures

- Can you name this muscle?
 - Triceps brachii

