

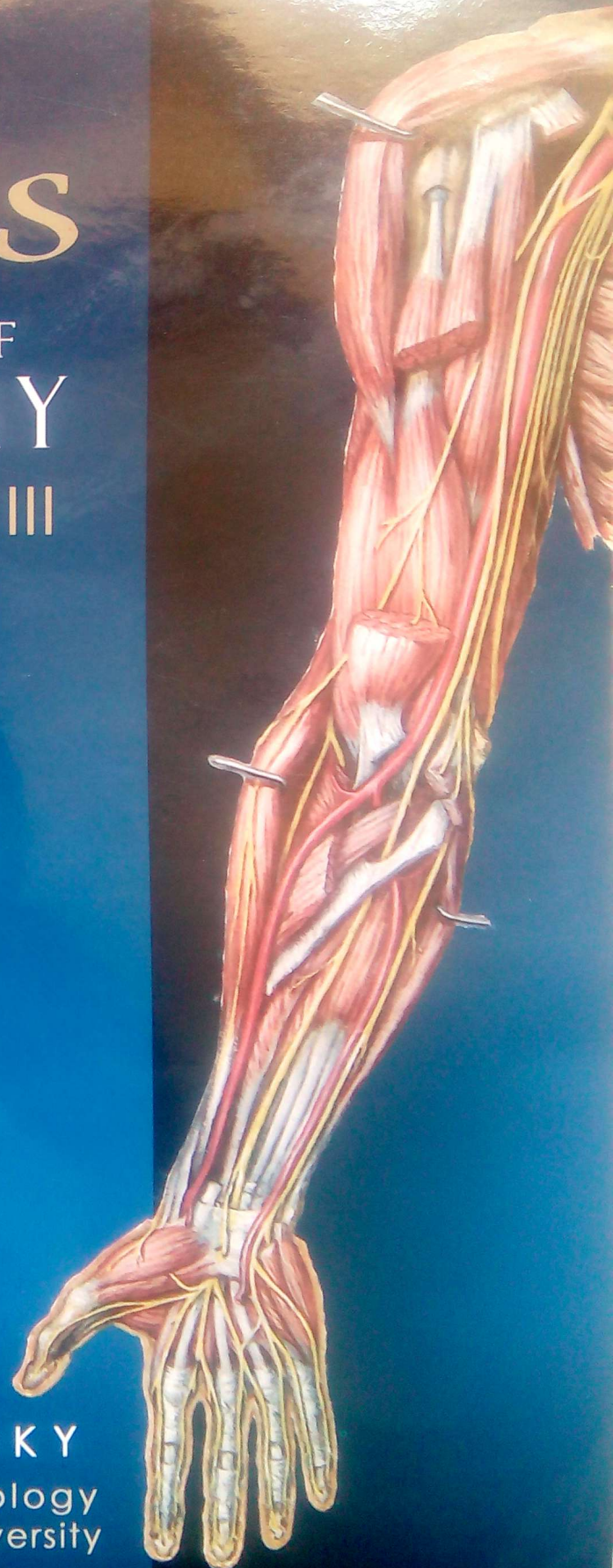
# El-Fiky's

MINI ATLAS OF  
ANATOMY

PART III

## UPPER LIMB

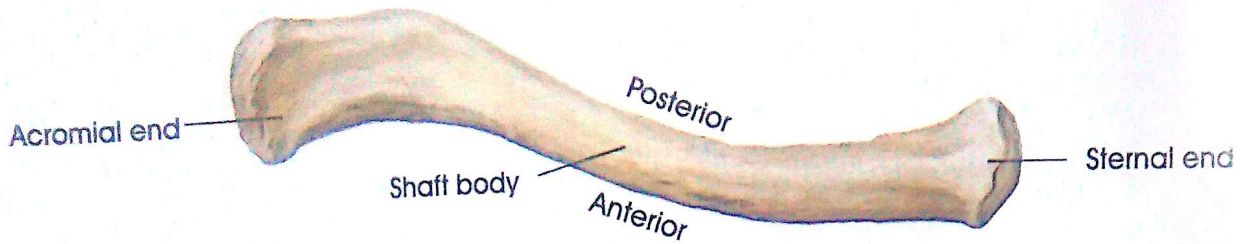
DR. MOHAMED EL-FIKY  
Professor of Anatomy & Embryology  
Faculty of Medicine Menoufia university  
EGYPT



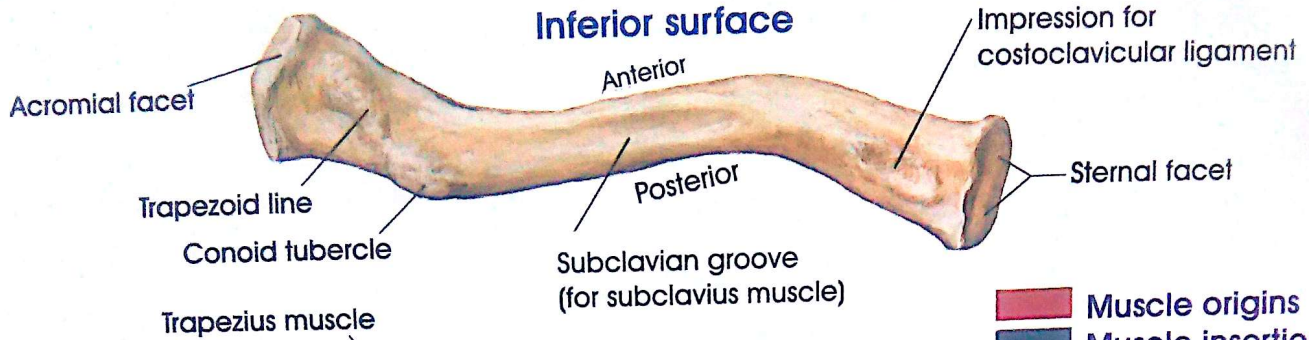


# Right clavicle

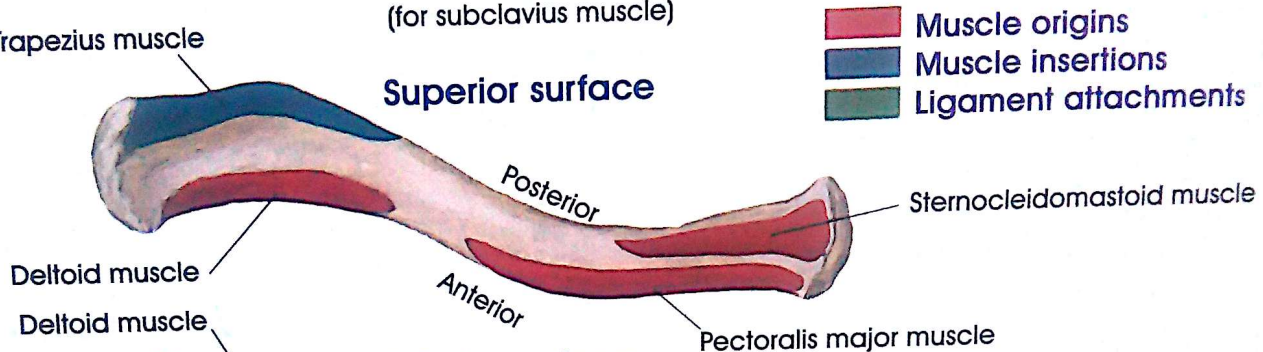
## Superior surface



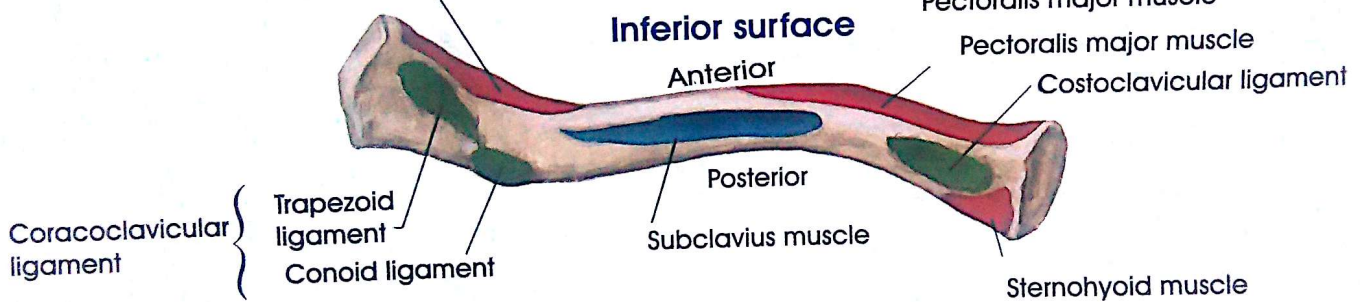
## Inferior surface



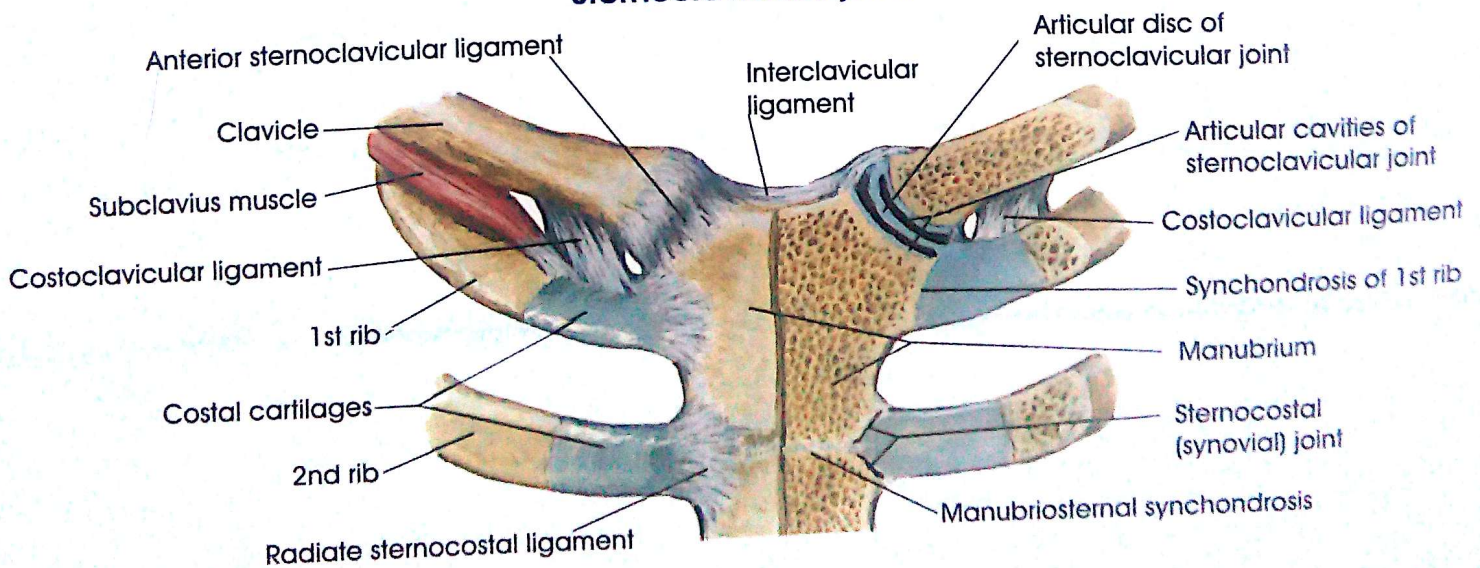
## Superior surface



## Inferior surface



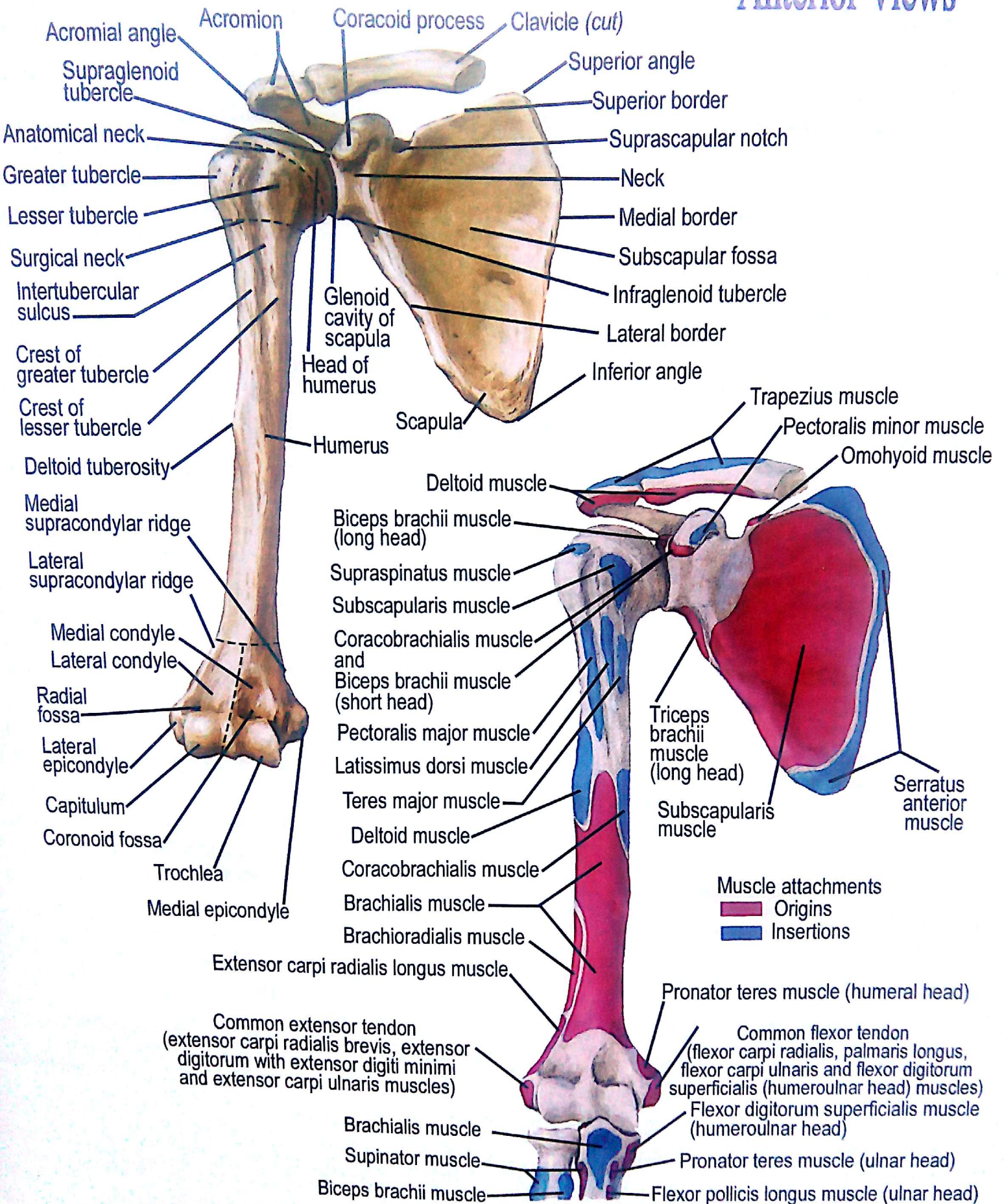
## Sternoclavicular joint



# Clavicle and Sternoclavicular Joint



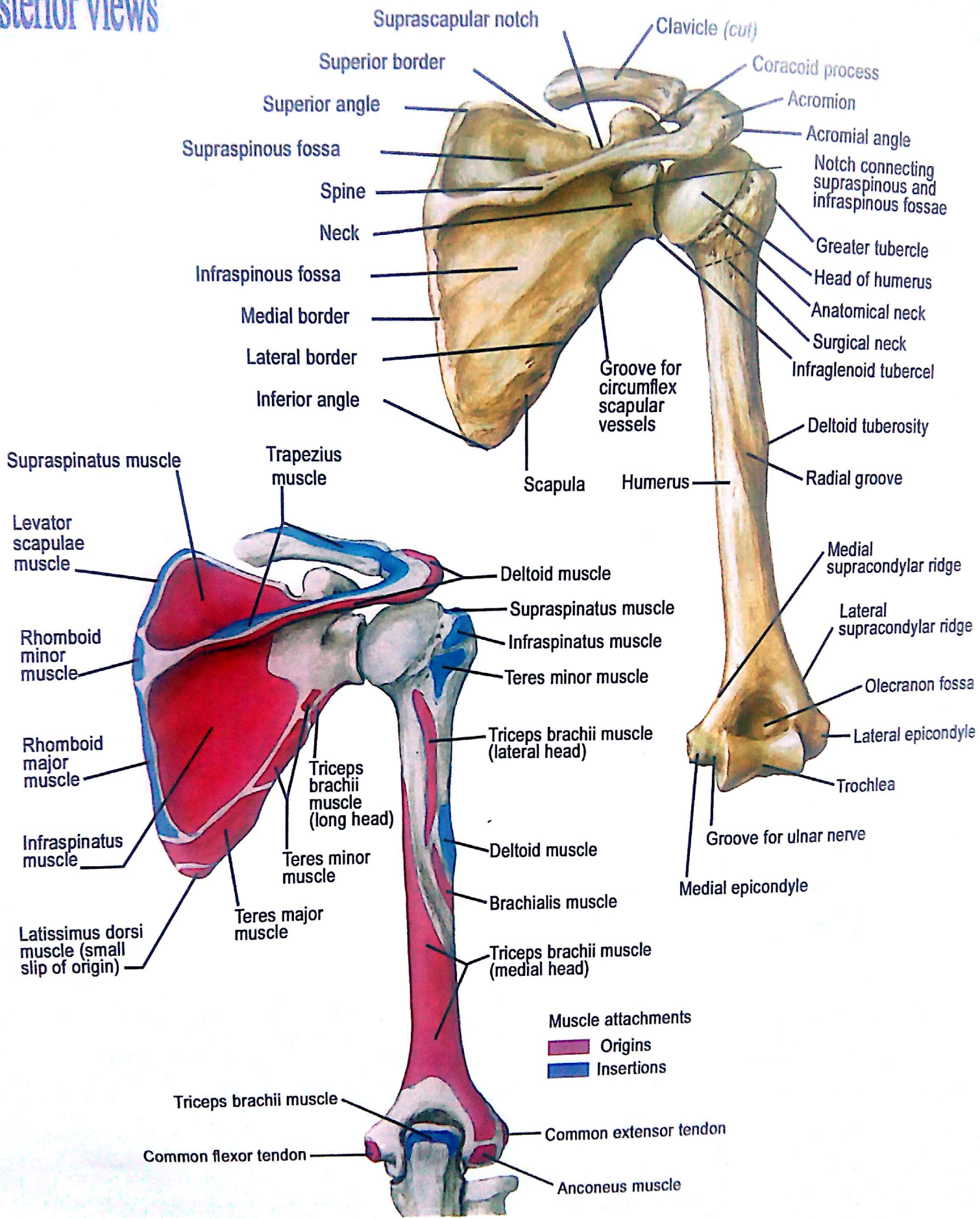
# Anterior Views



## Humerus and Scapula



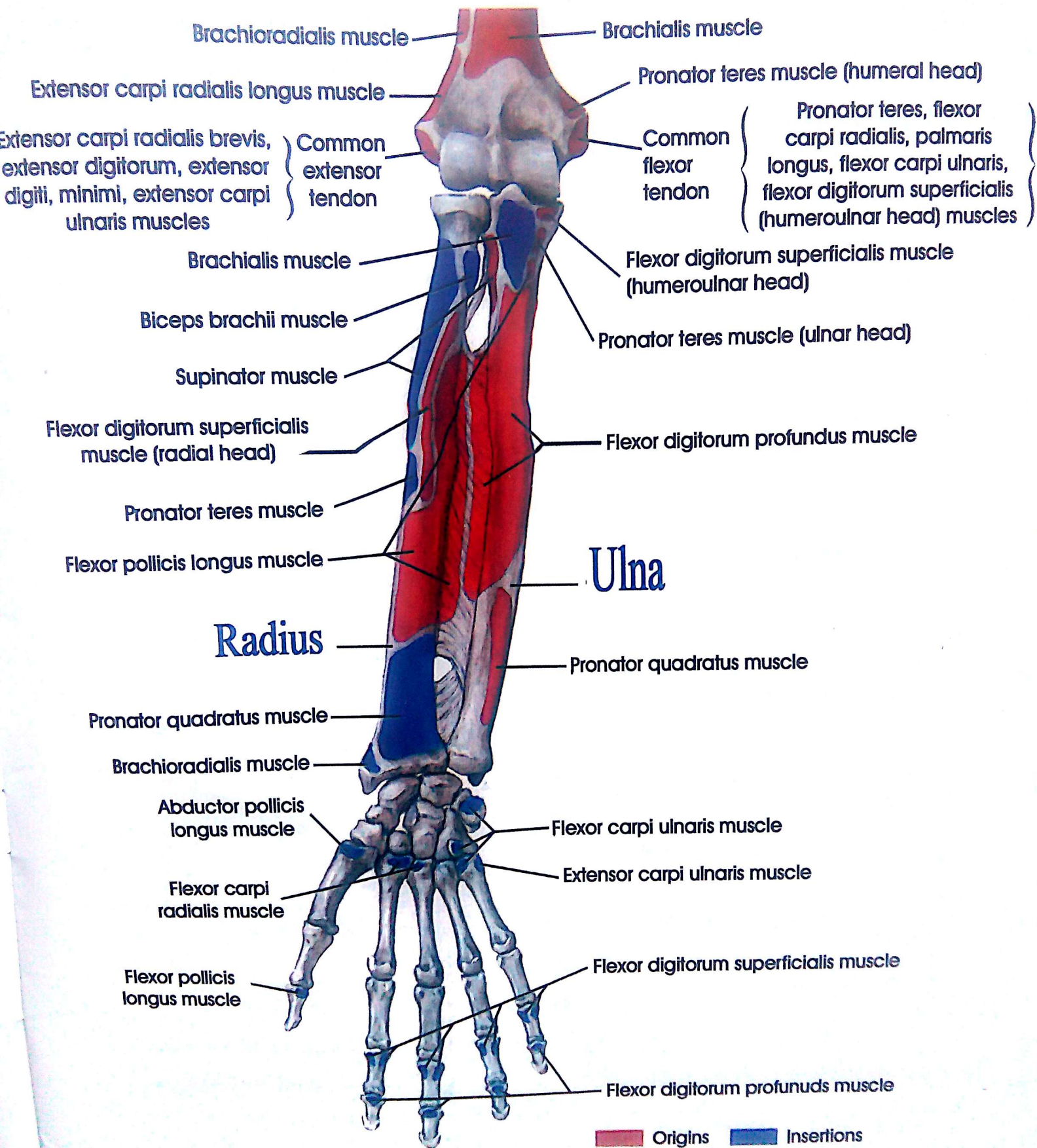
# Posterior views



## Humerus and Scapula



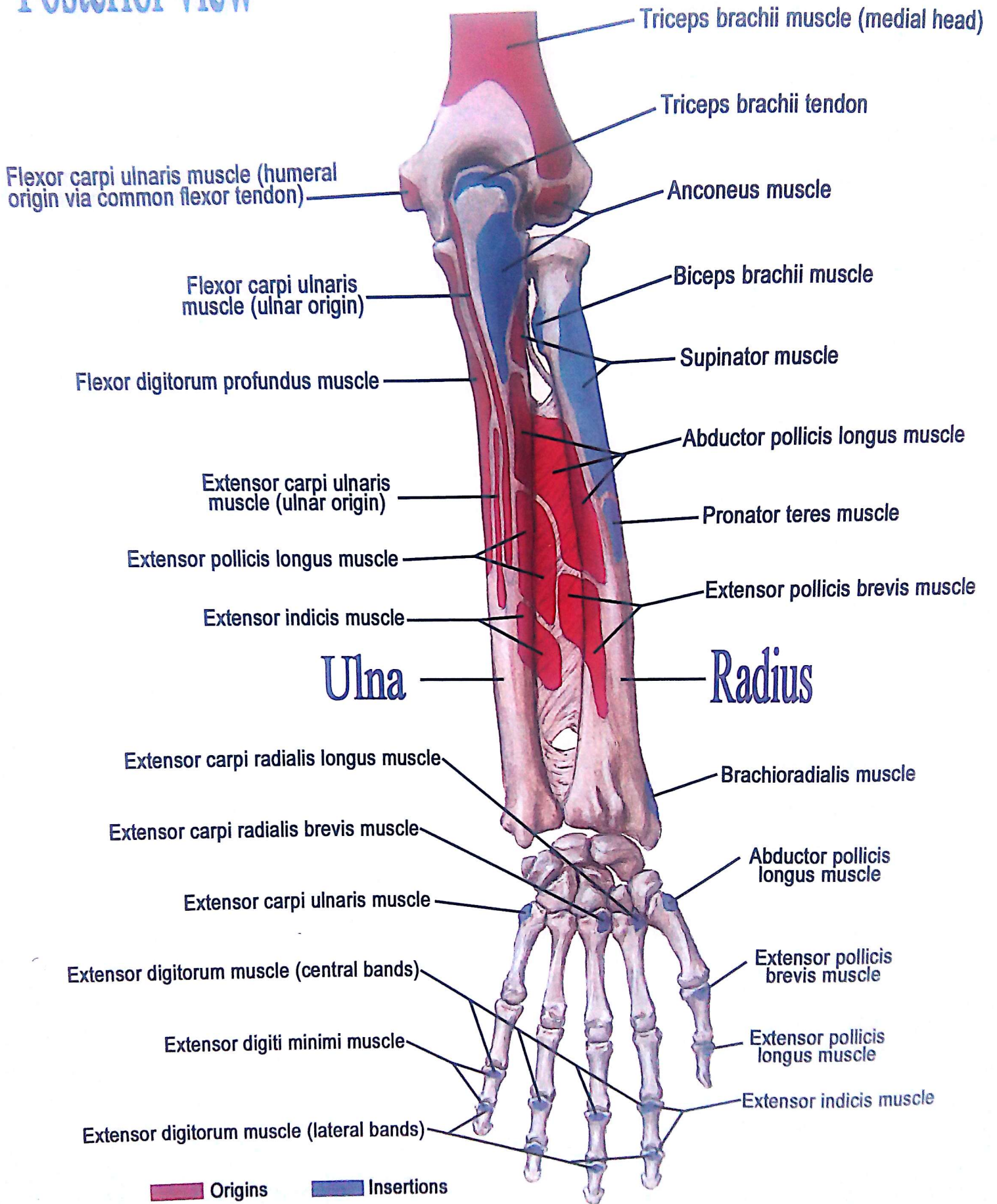
# Anterior View



## Attachments of Muscles of Forearm

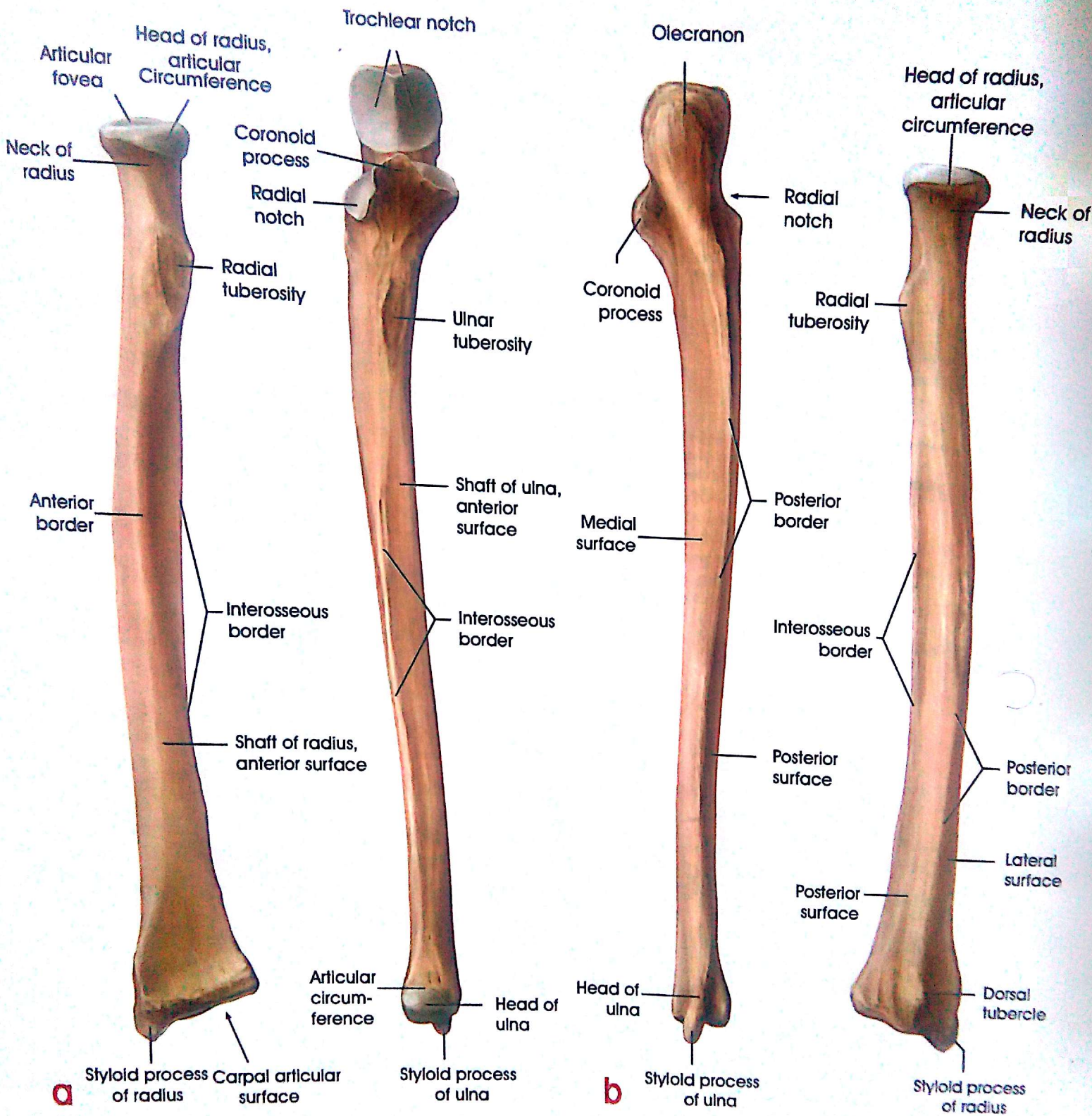


# Posterior view



## Attachments of Muscles of Forearm



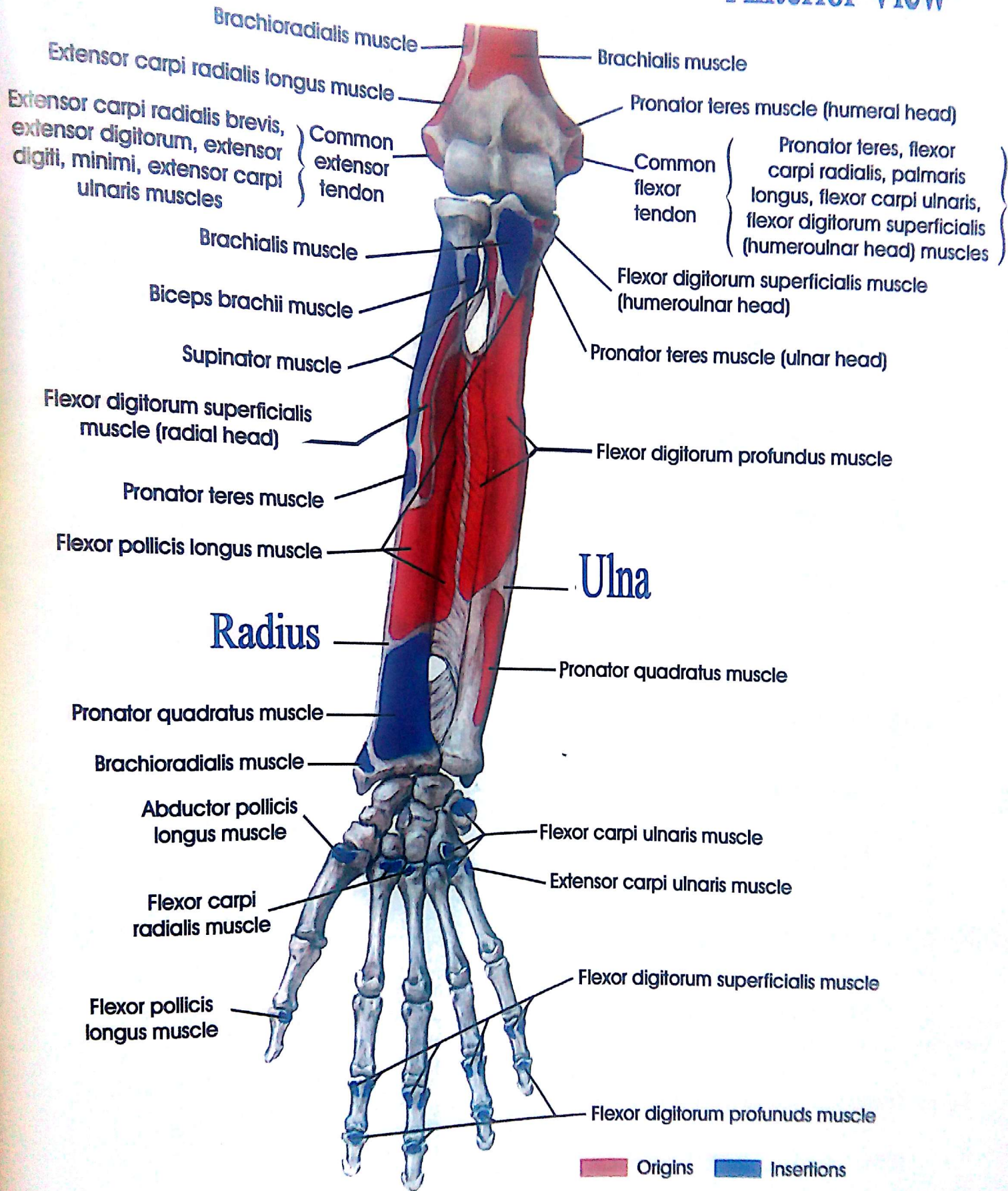


**a** Anterior View, **b** Posterior View.

# The Radius and Ulna



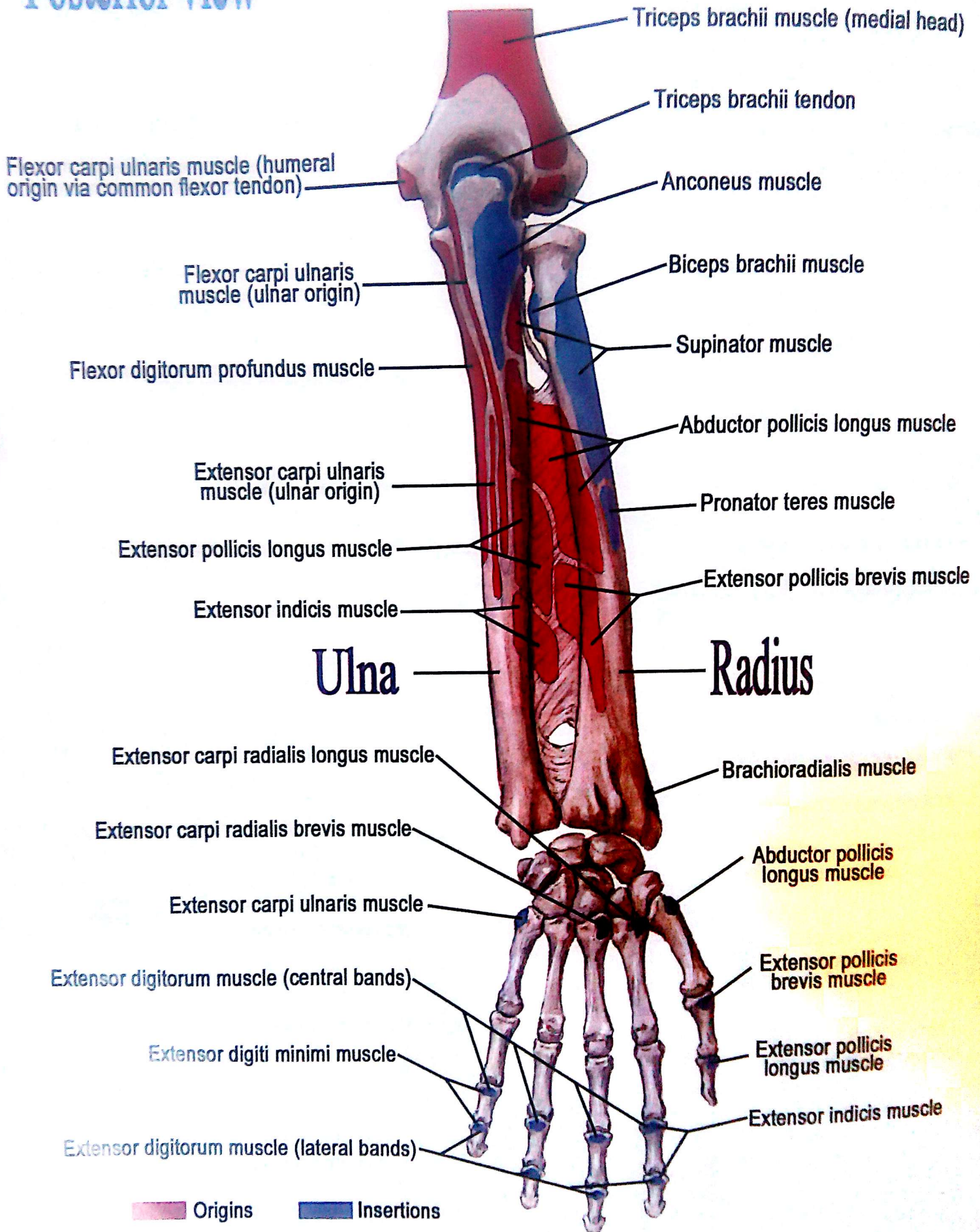
# Anterior View



## Attachments of Muscles of Forearm

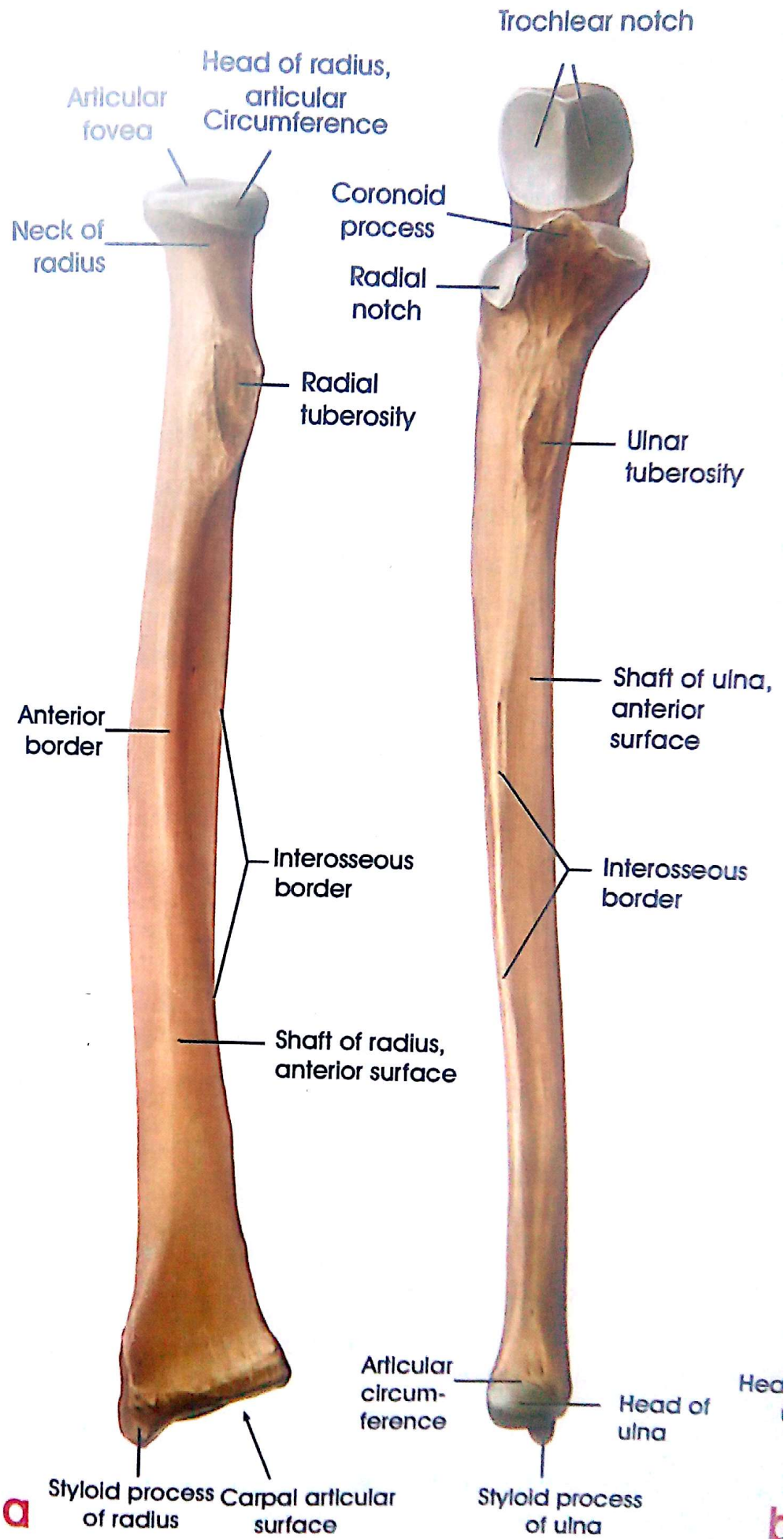


# Posterior view



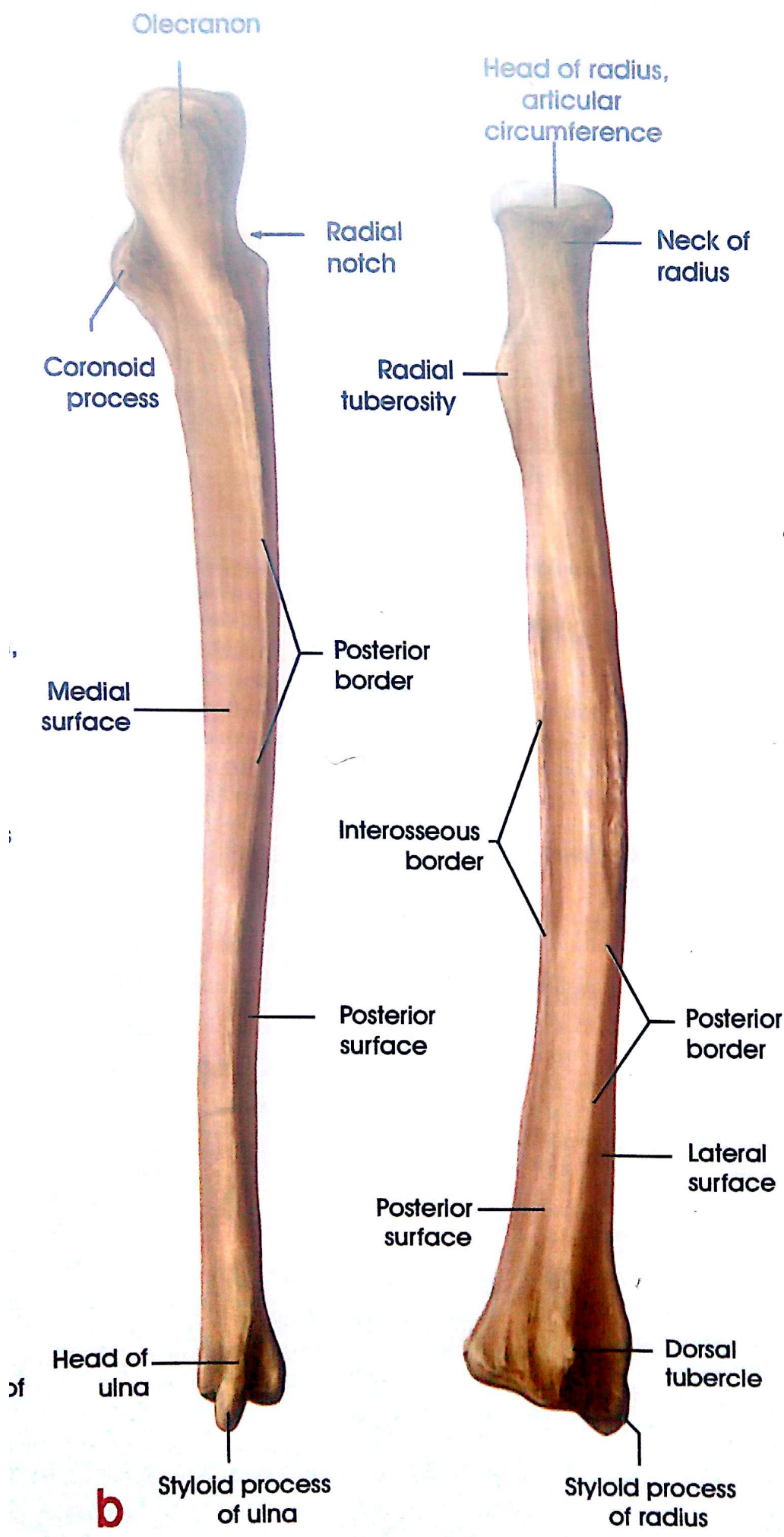
## Attachments of Muscles of Forearm





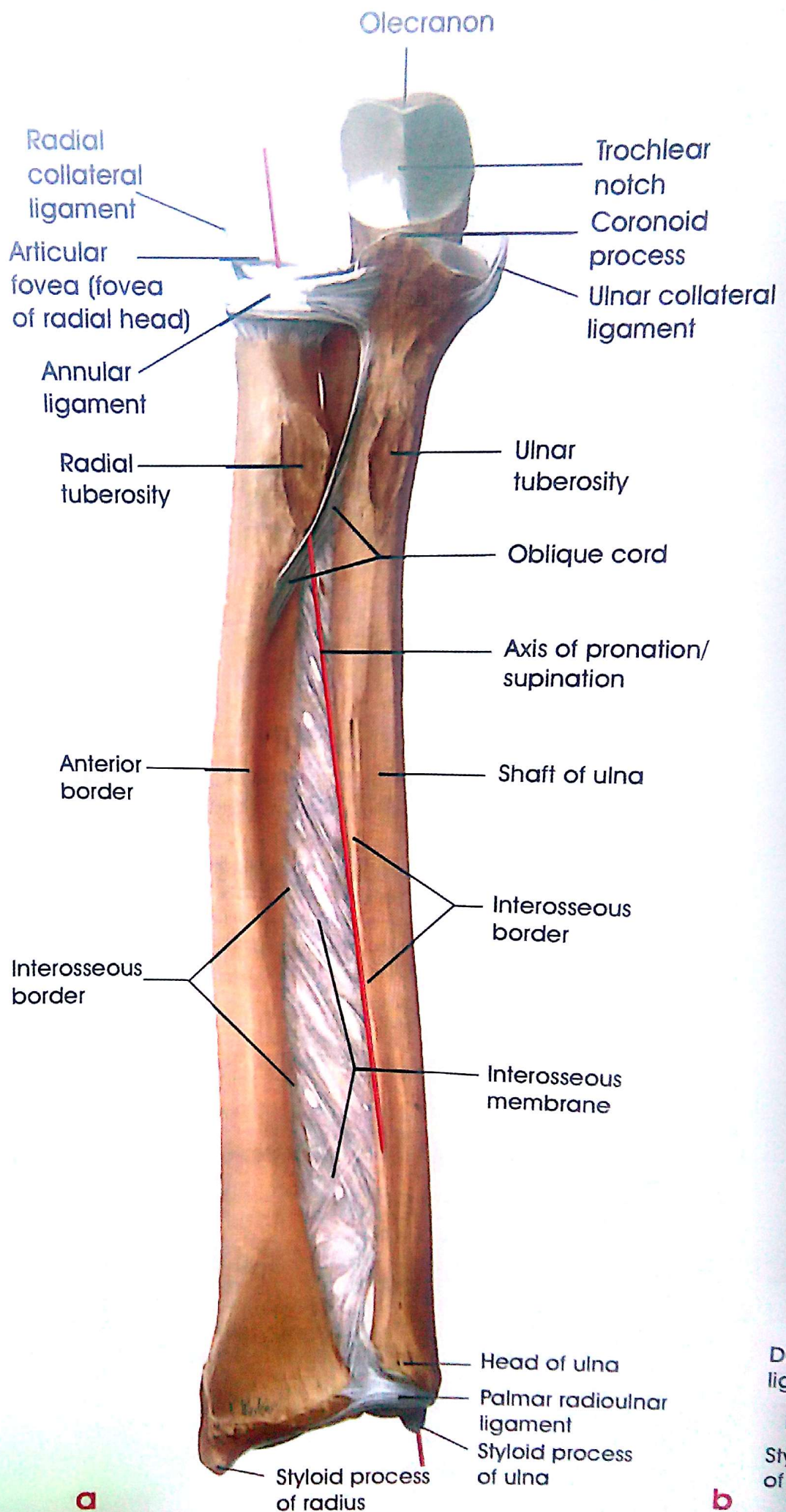
**a Anterior View, b Posterior View.**





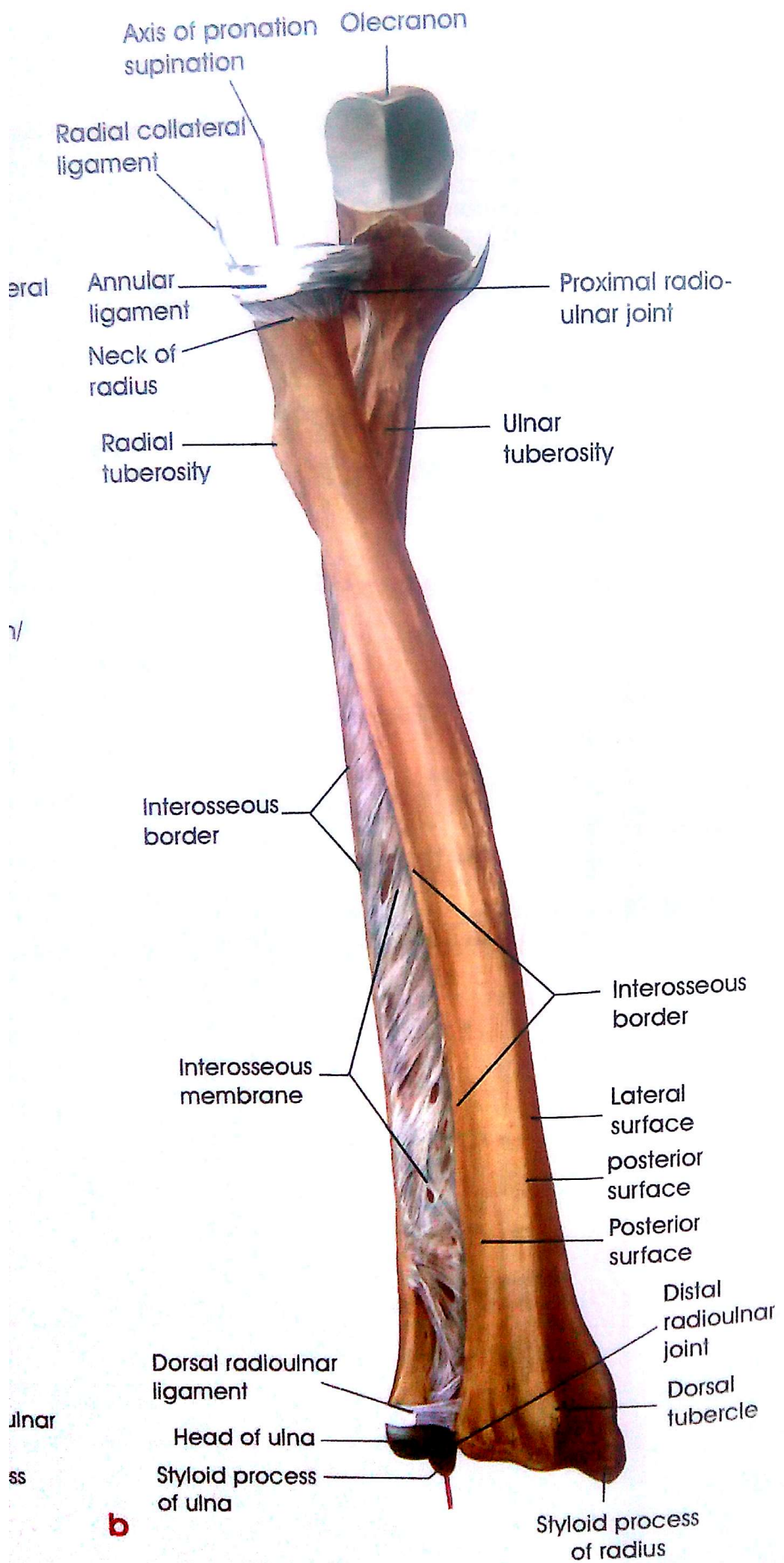
**b**





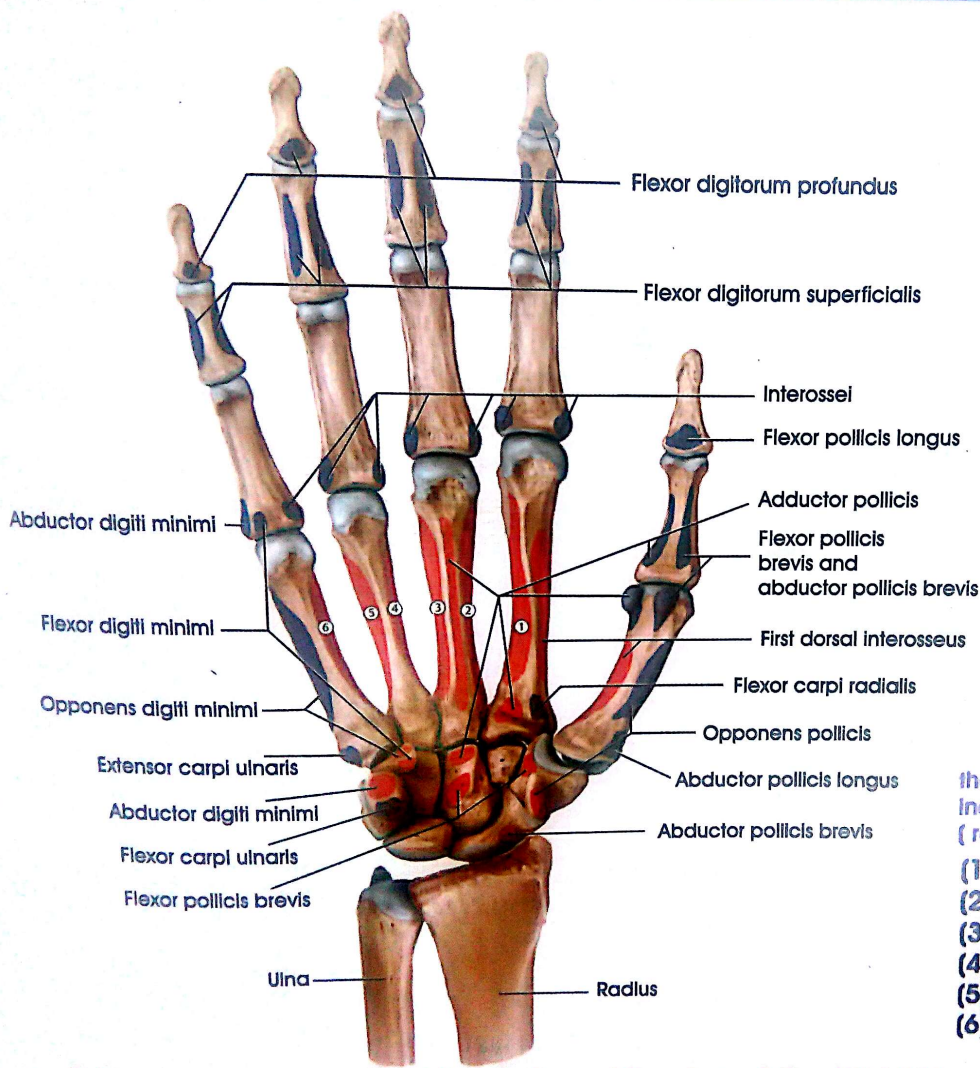
Ligaments and axis for pronation and supination





**b**



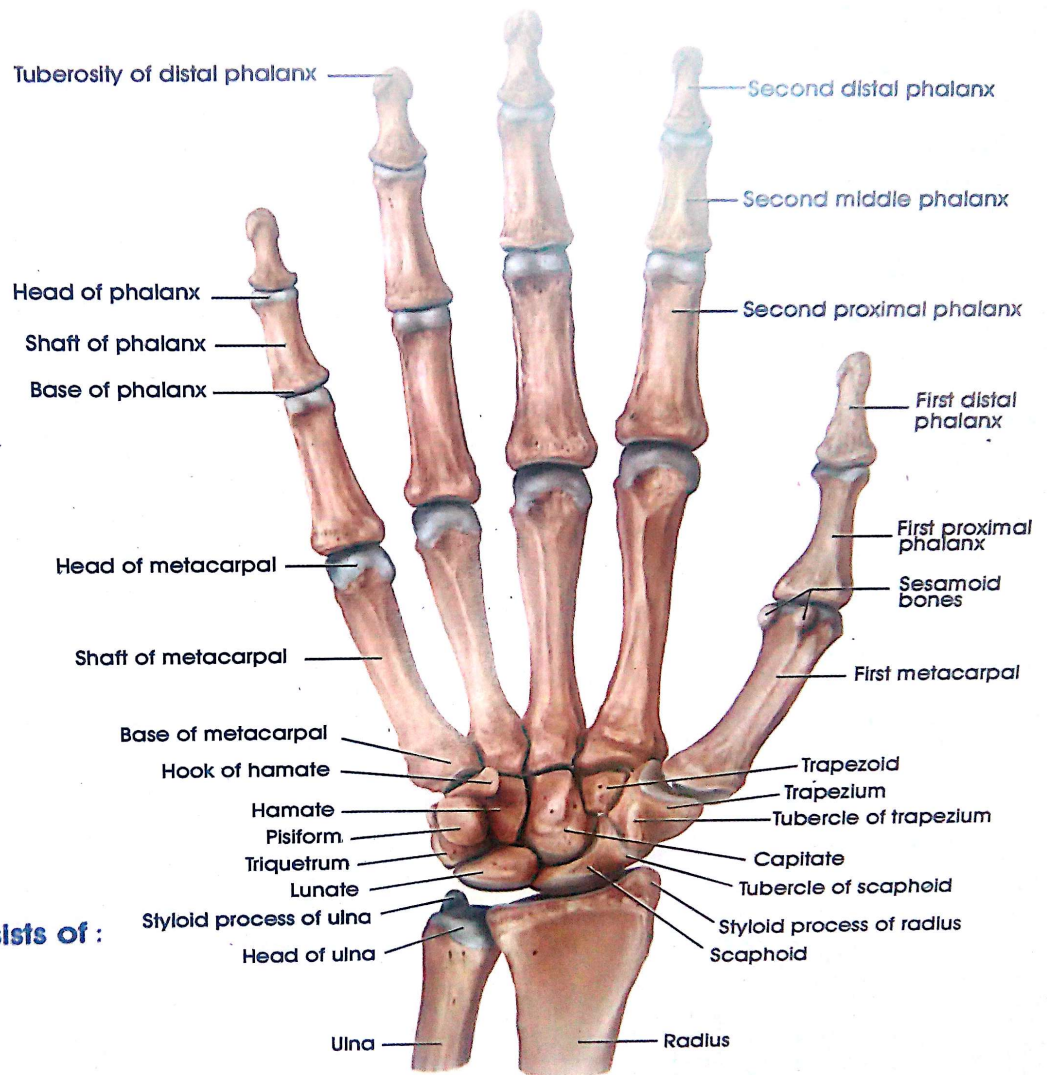


the origins and insertions of the muscles are indicated by color shading (red origin, blue = insertion).

- (1) First palmar interosseus
- (2) Second dorsal interosseus
- (3) Third dorsal interosseus
- (4) Second palmar interosseus
- (5) Fourth dorsal interosseus
- (6) Third palmar interosseus

## Origins and Insertions of the Palmar Muscles of the Right Hand



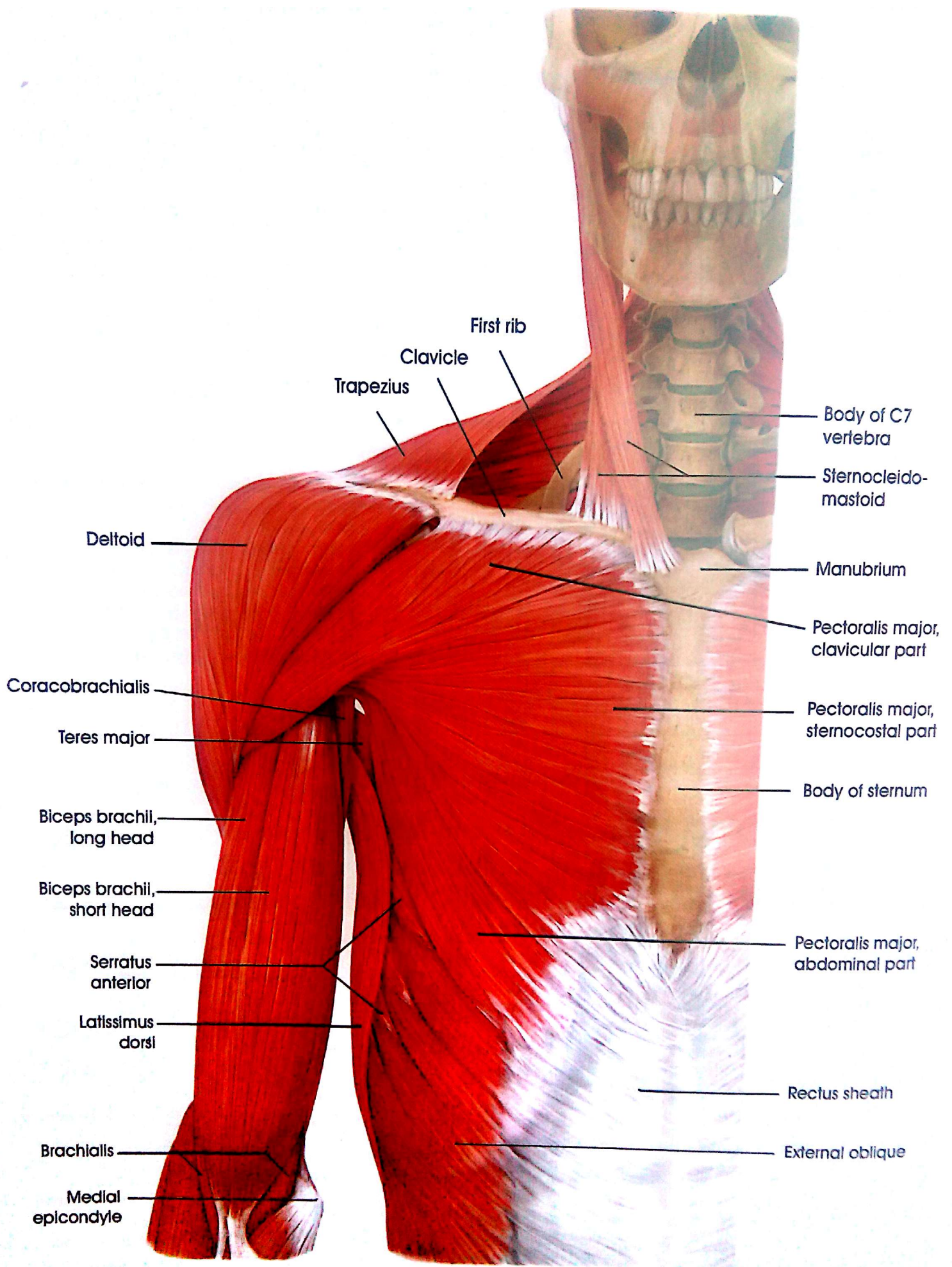


**the skeleton of the hand consists of :**

- \* the carpal bones
- \* the metacarpal bones
- \* the phalanges

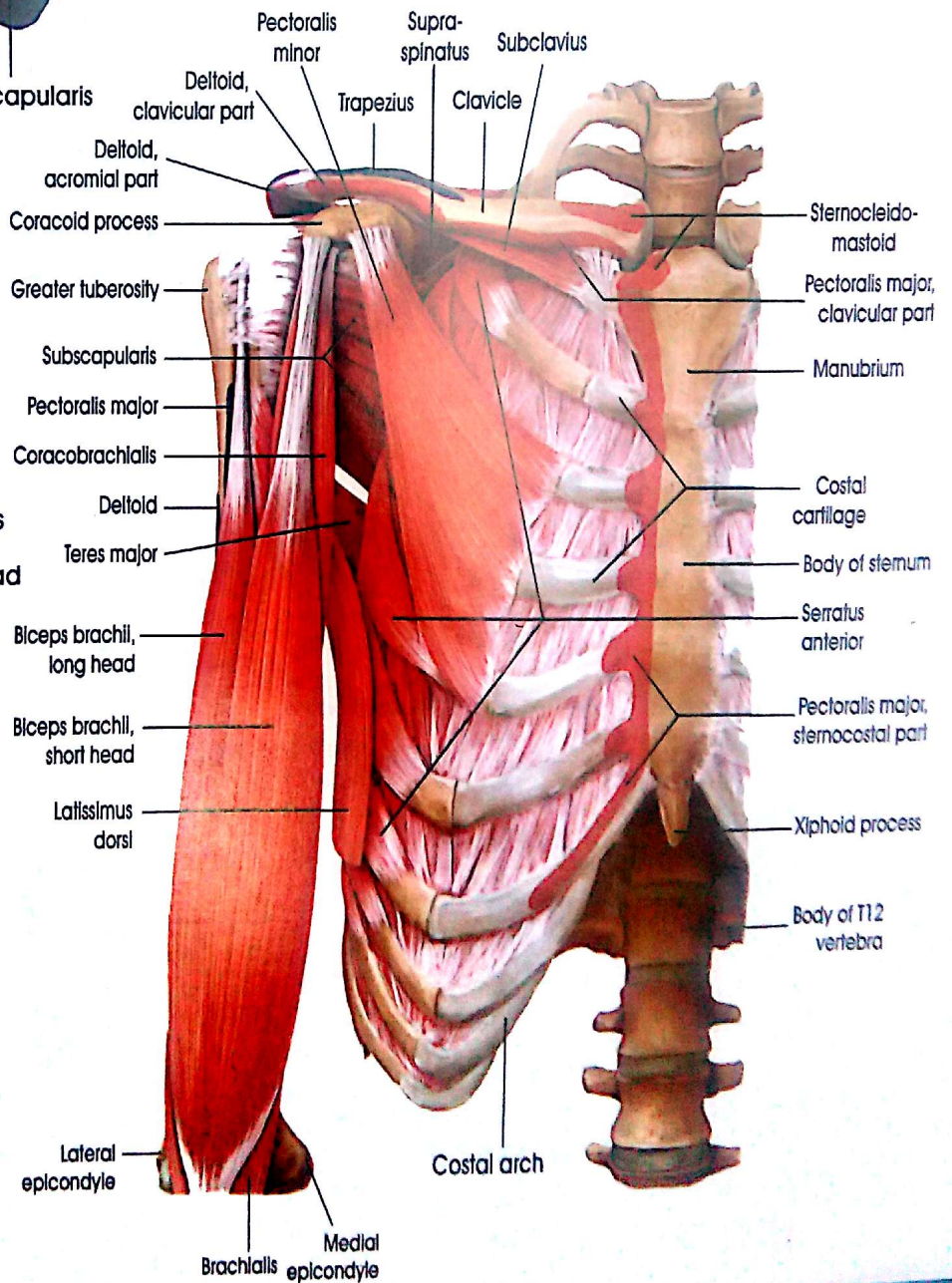
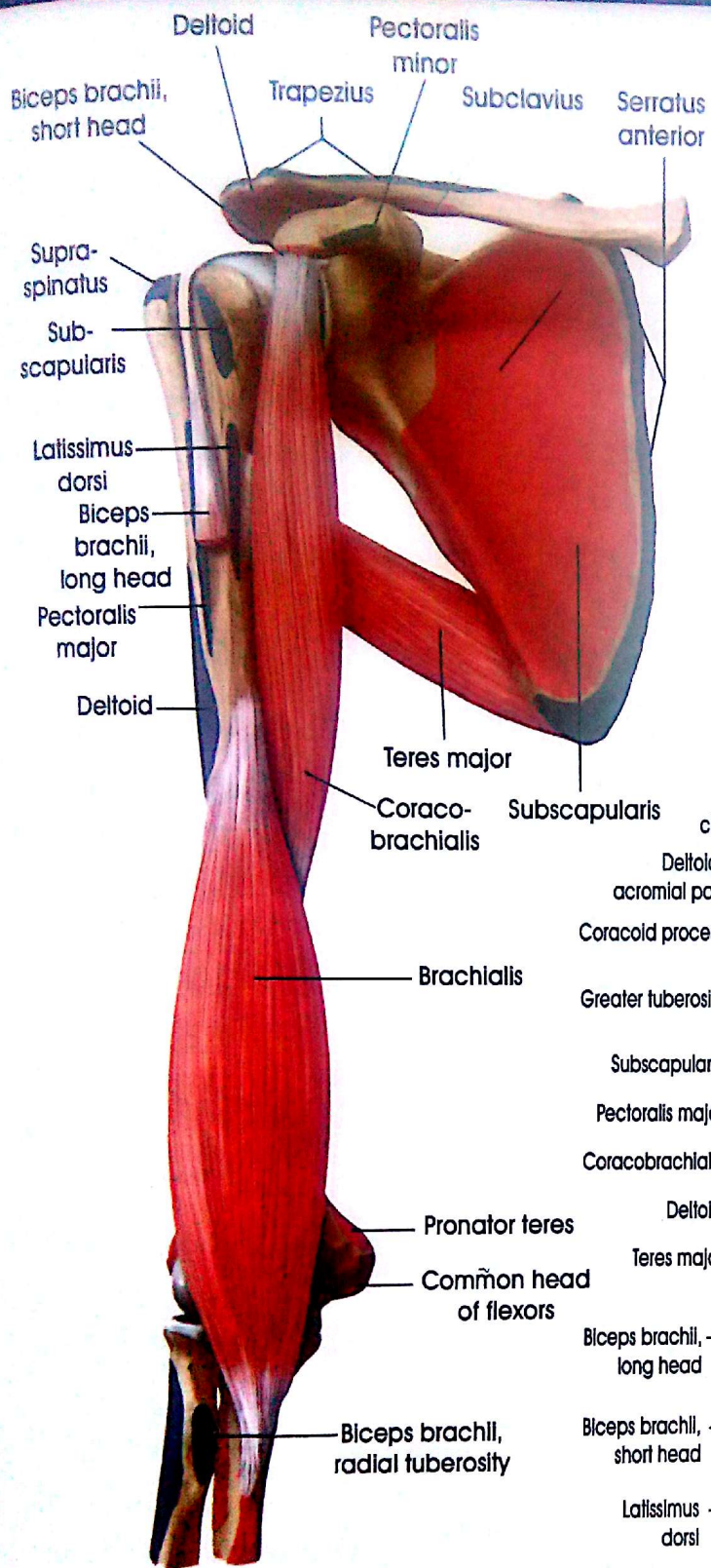
**The Bones of the Right Hand. Palmar View**





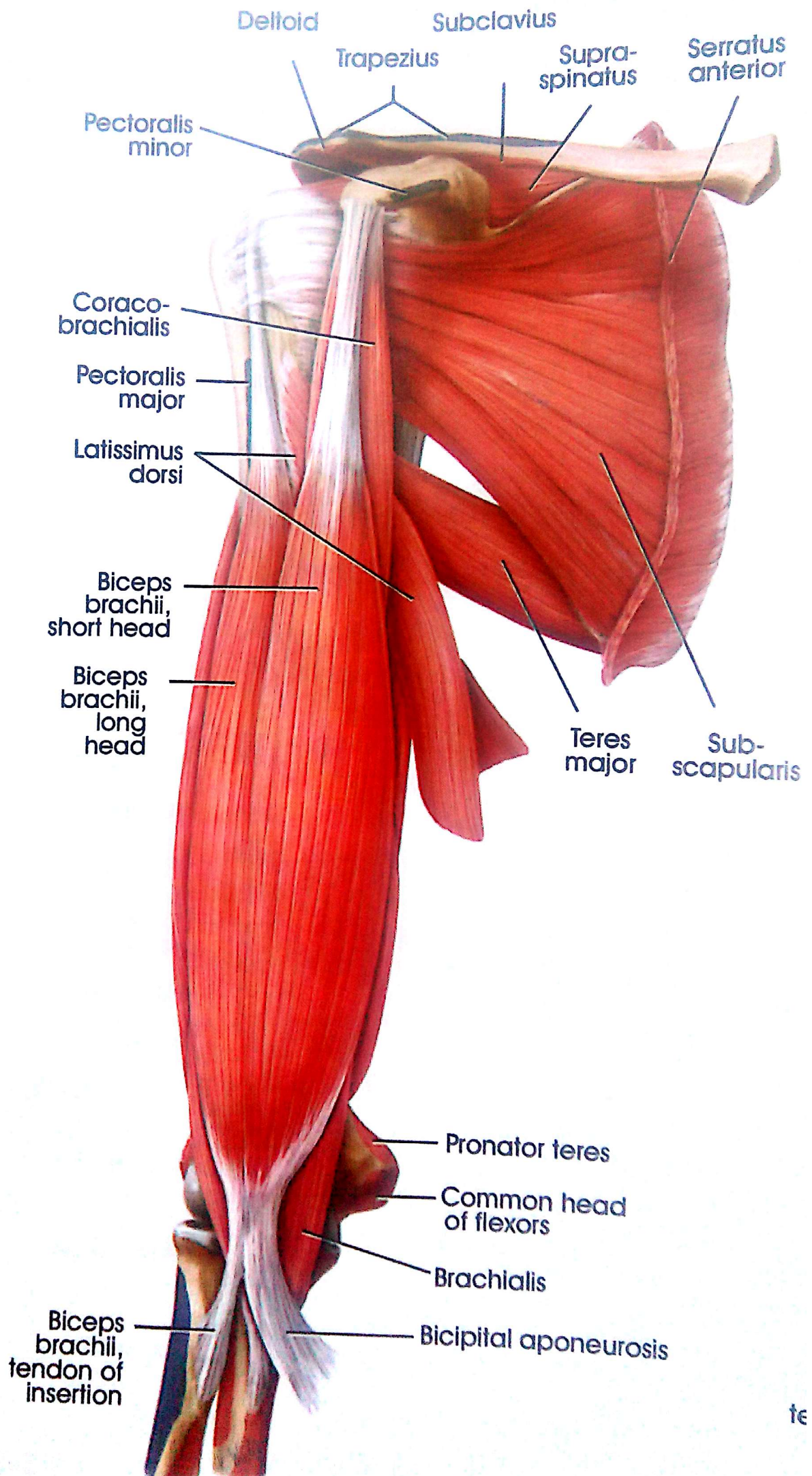
# The Anterior Muscles of the Shoulder Girdle and Shoulder Joint





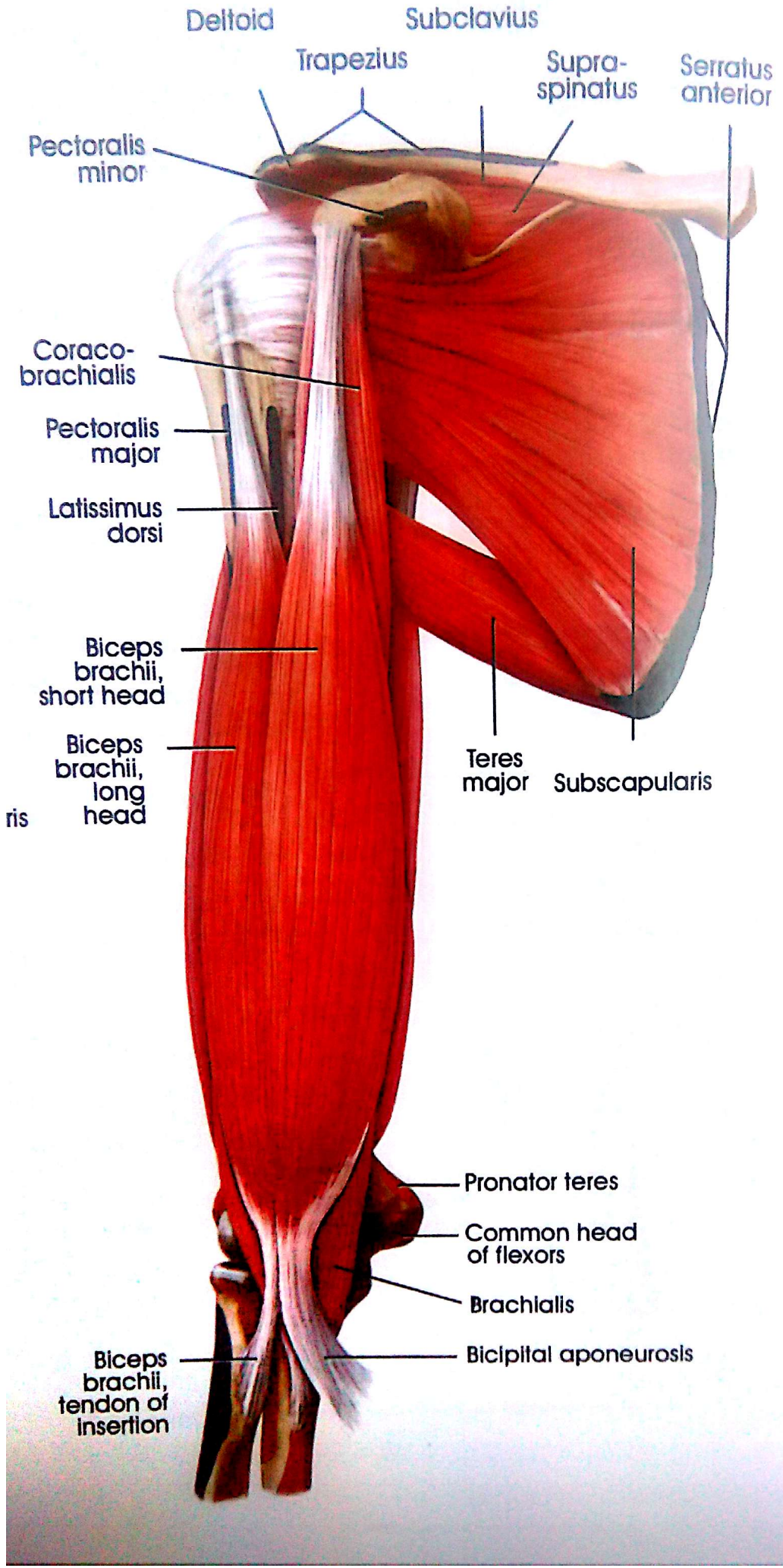
## The Anterior Muscles of the Right Shoulder and Arm



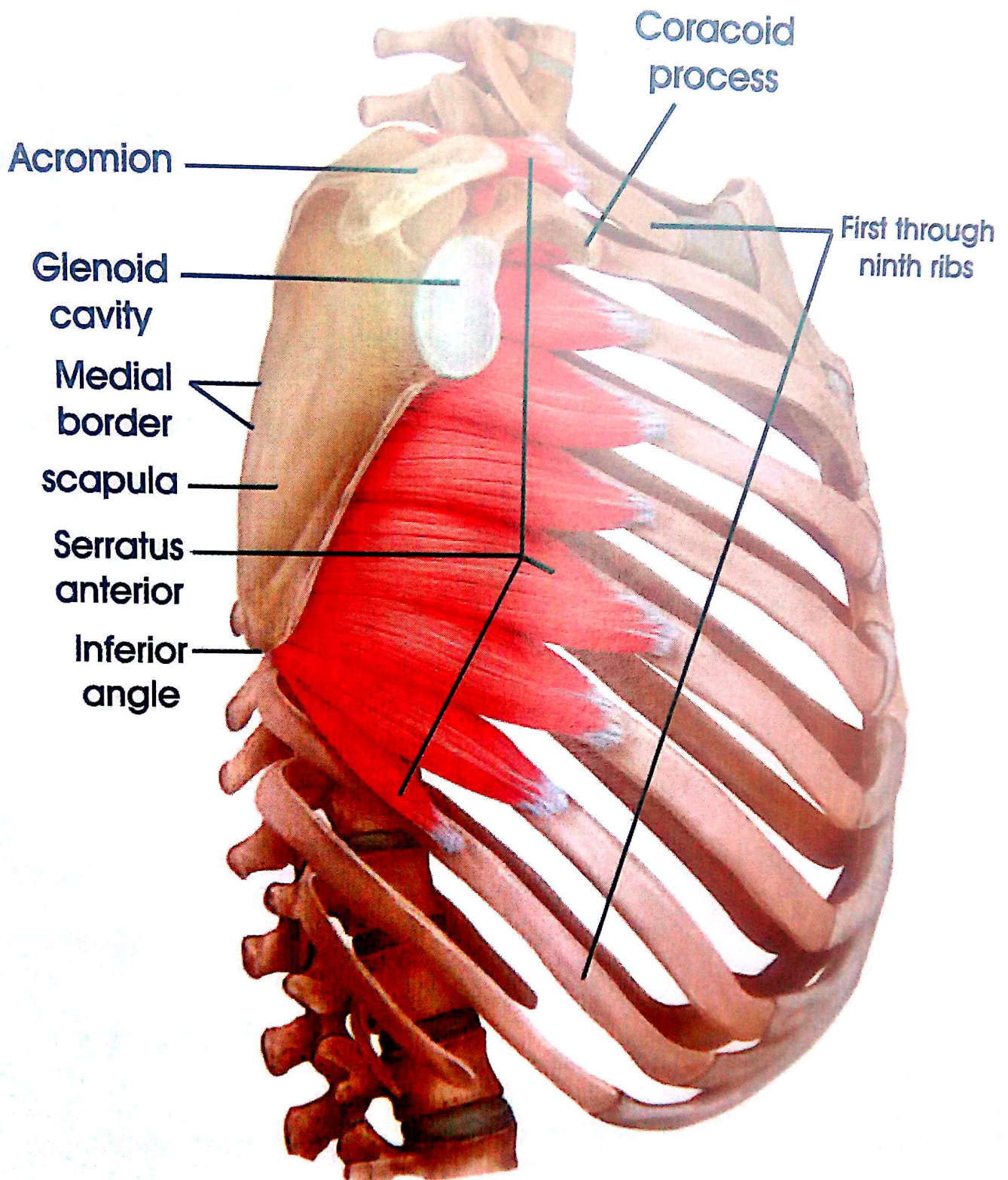


te



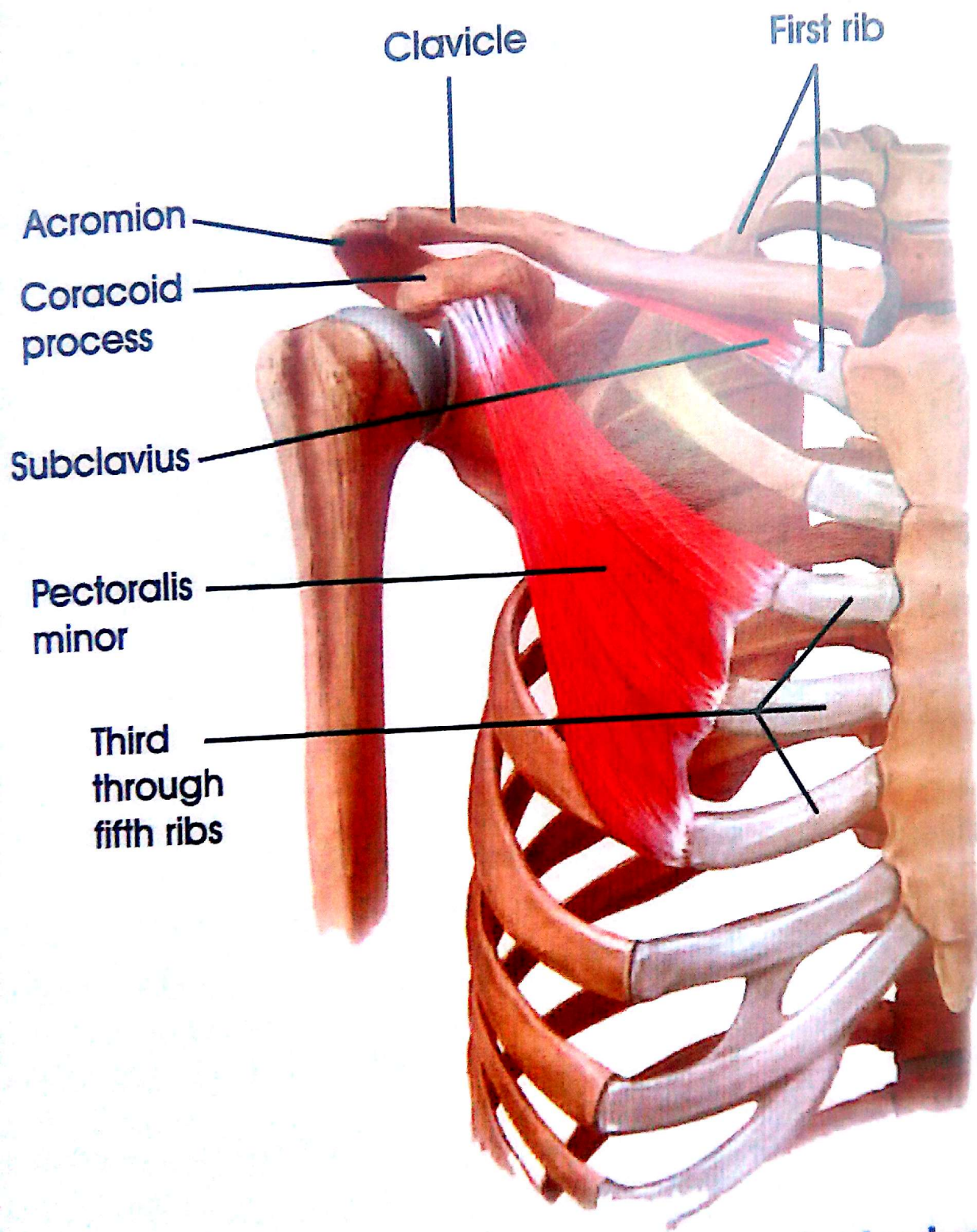






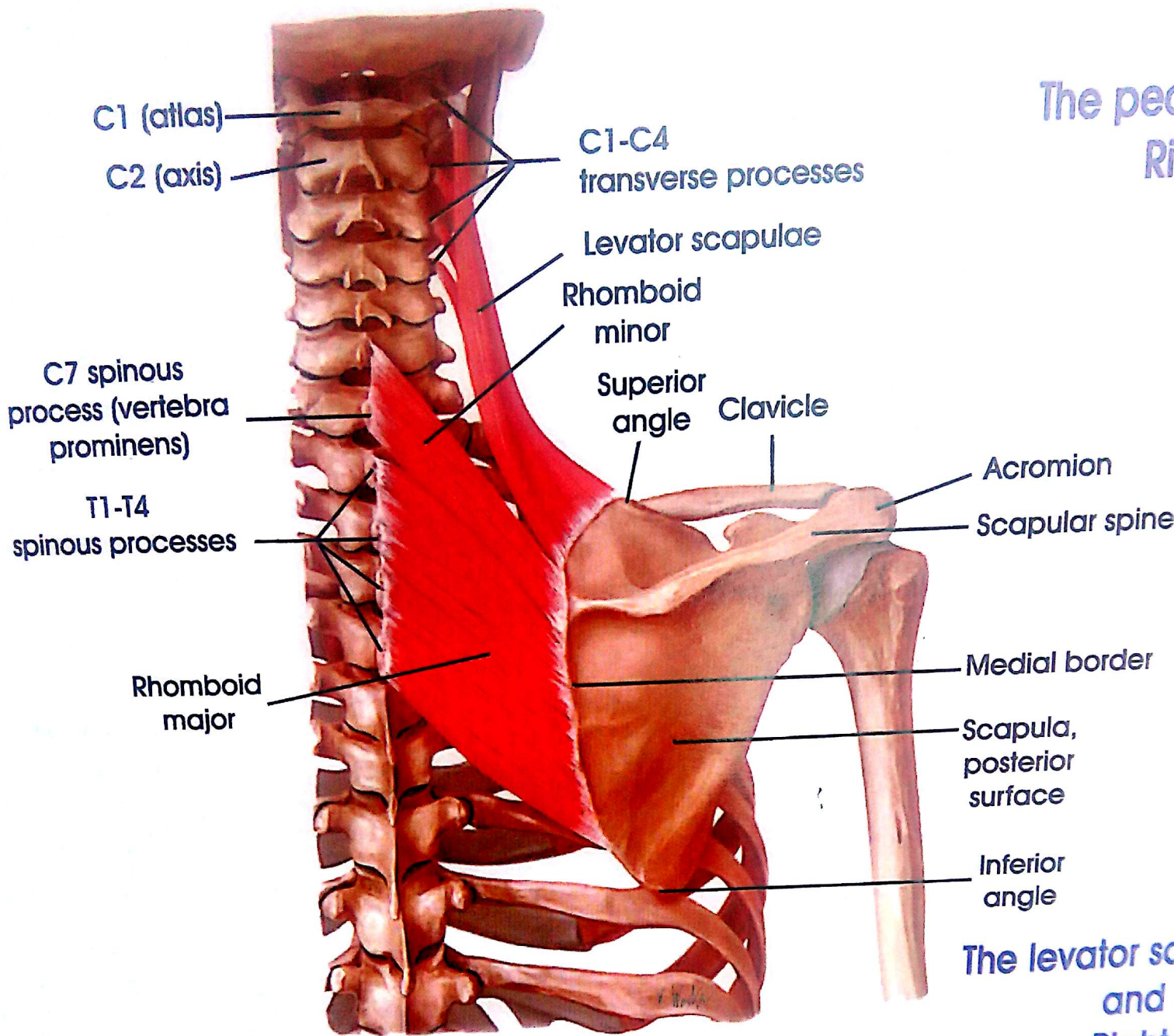
**The serratus anterior  
Right side, Lateral View.**





**The pectoralis minor and subclavius  
Right side, Anterior View.**



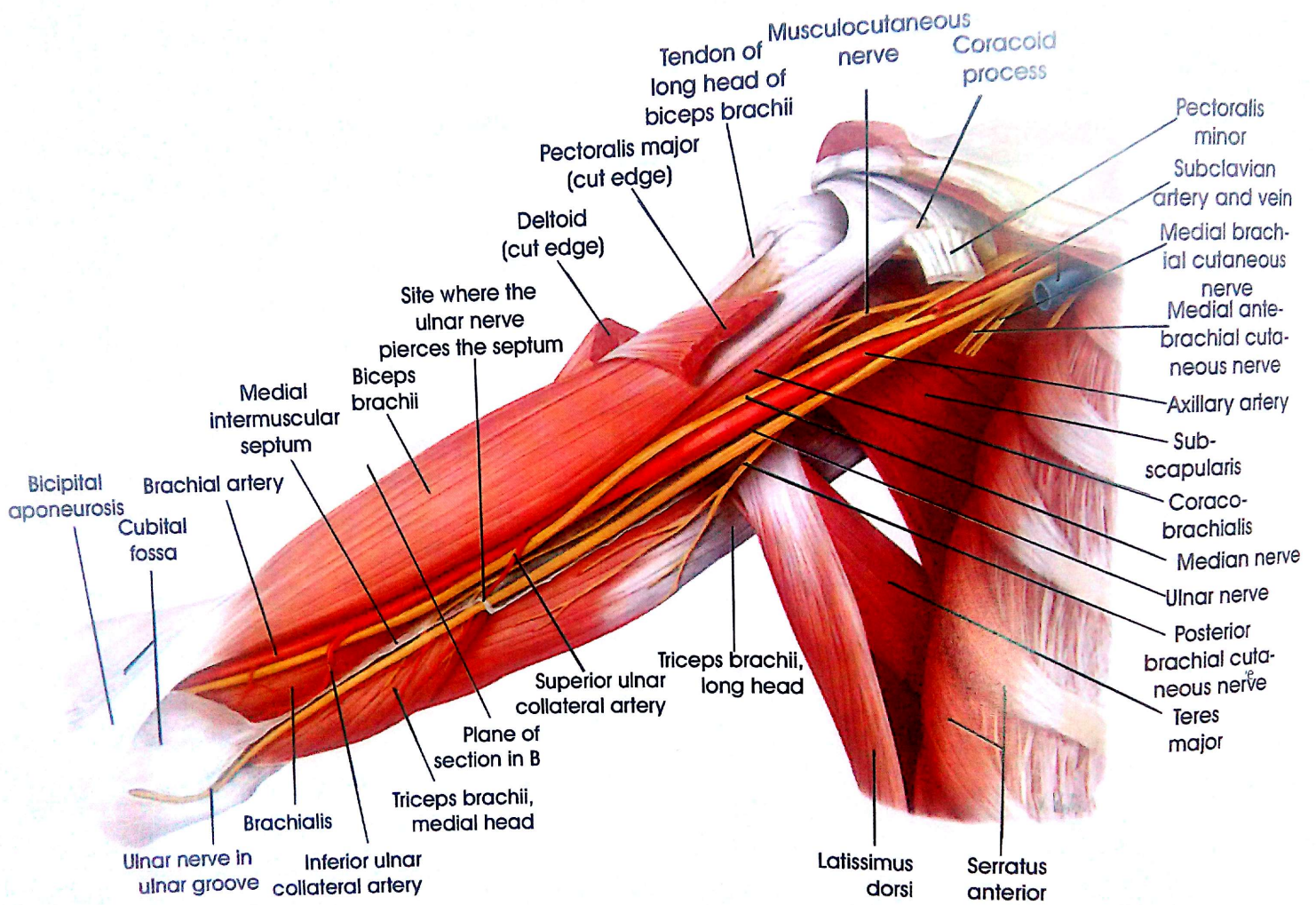


The pec  
Ri

The levator sc  
and  
Right

## Muscles connecting Upper Limb to the



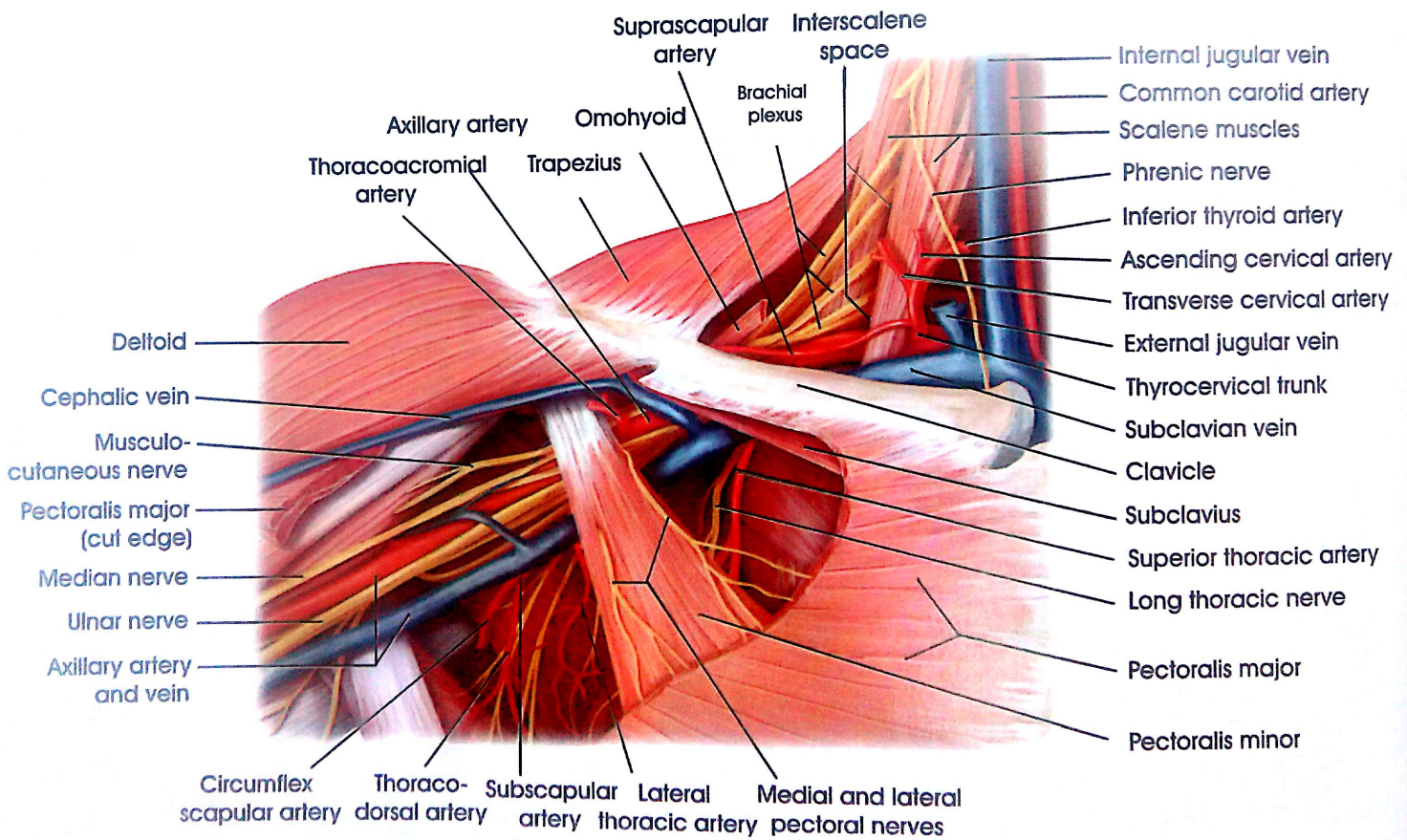


## Bounderies and Content of the Axilla



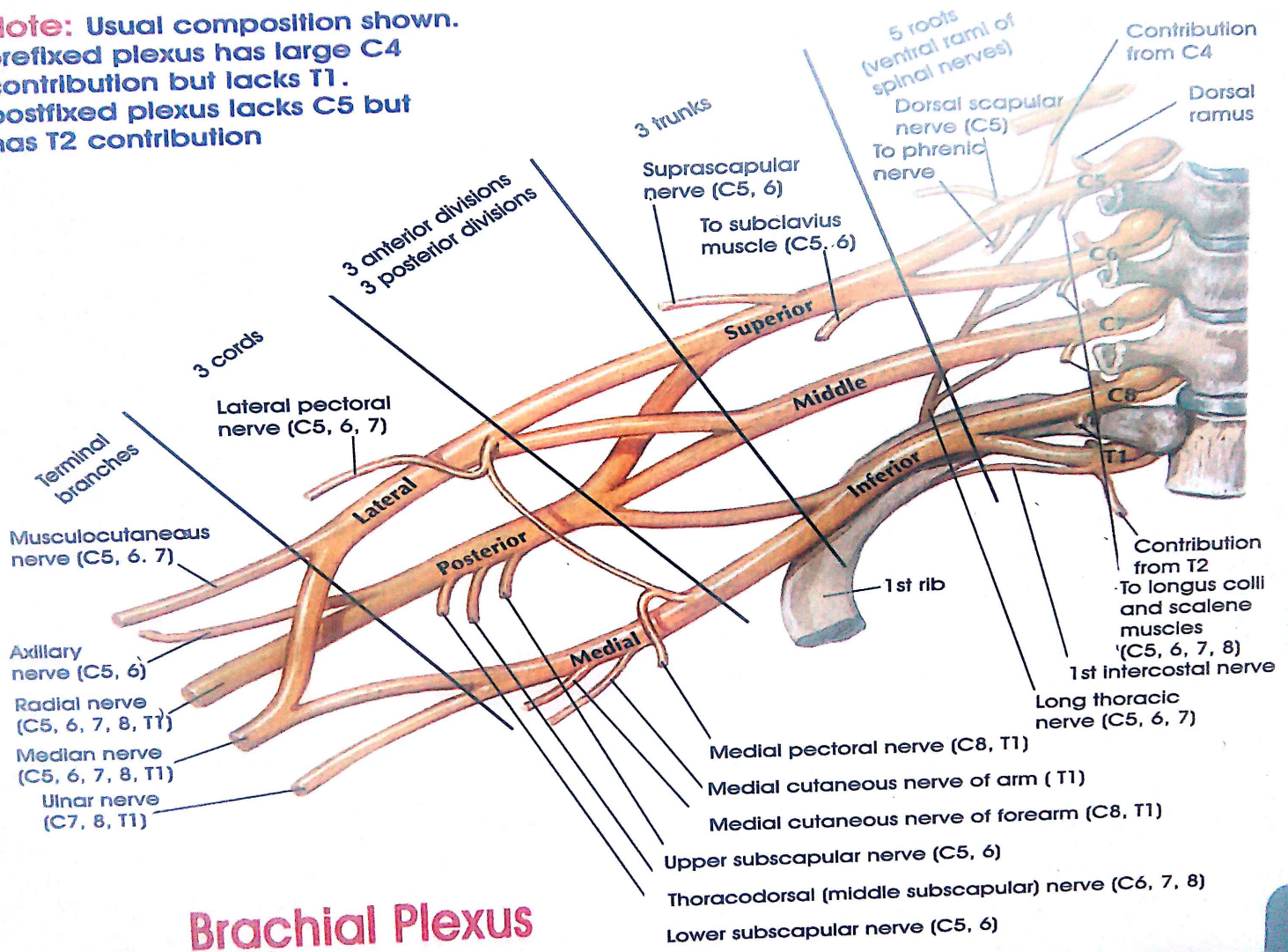
# UPPER LIMB

*Foiky's*





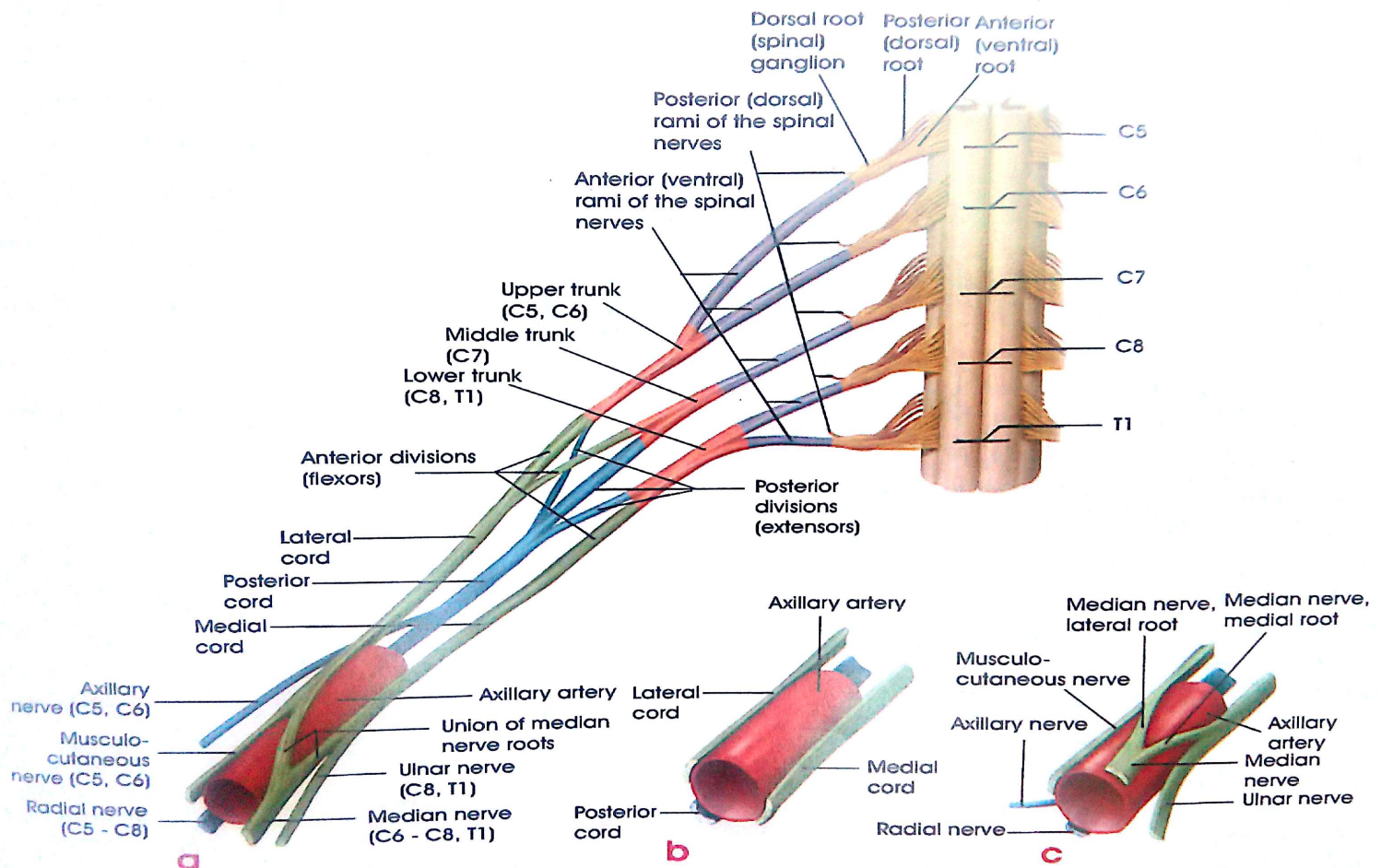
**Note:** Usual composition shown.  
 prefixed plexus has large C4 contribution but lacks T1.  
 postfixed plexus lacks C5 but has T2 contribution



## Brachial Plexus

BY: DR. MOHAMED EL-FIKY

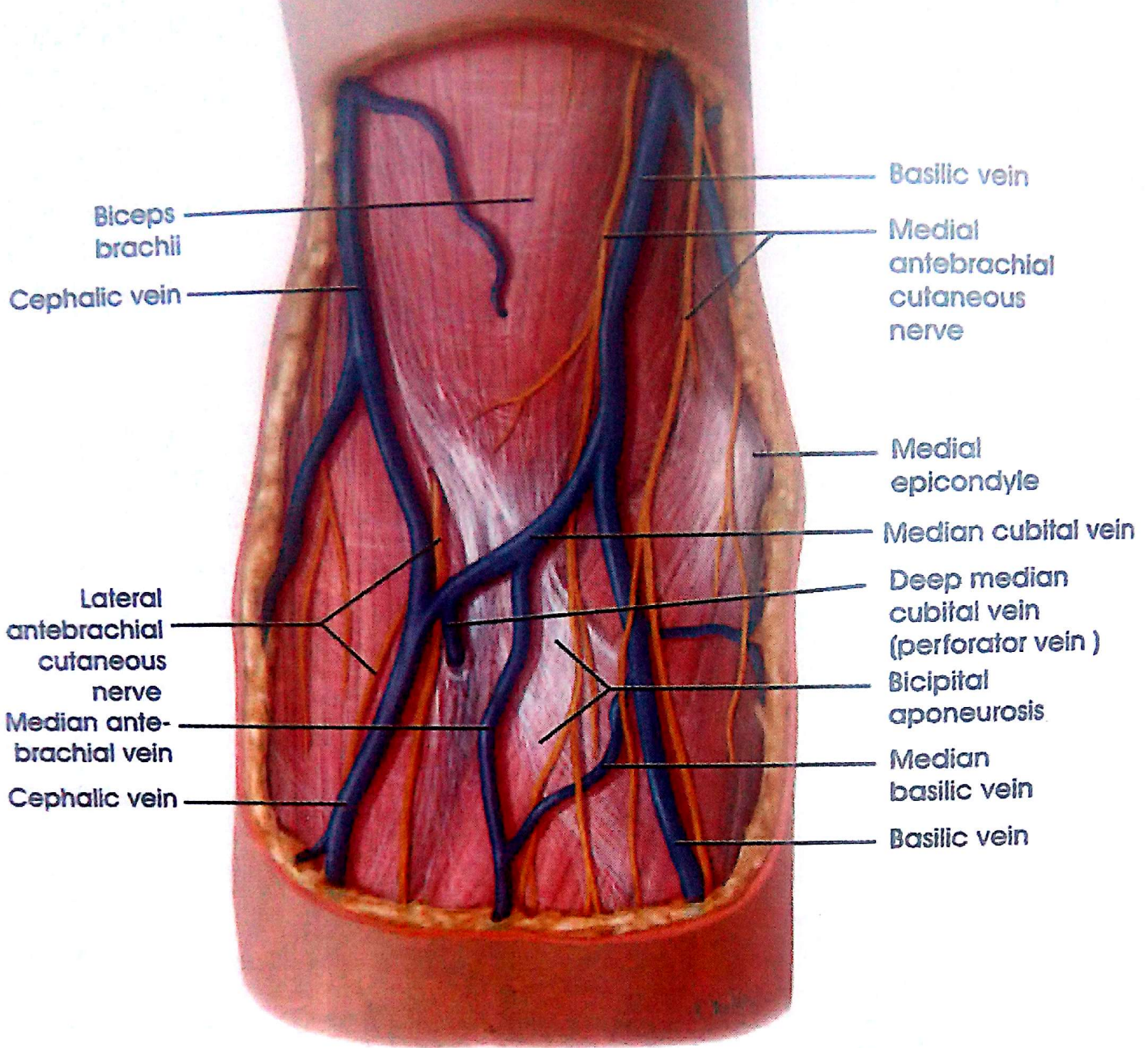




### Schematic representation of the Structure of the Brachial plexus

- a** Names and sequence of the various elements of the brachial plexus.
- b** Relationship of the lateral, medial, and posterior cords of the brachial plexus to the axillary artery.
- c** Subdivision of the brachial plexus cords into their main branches.





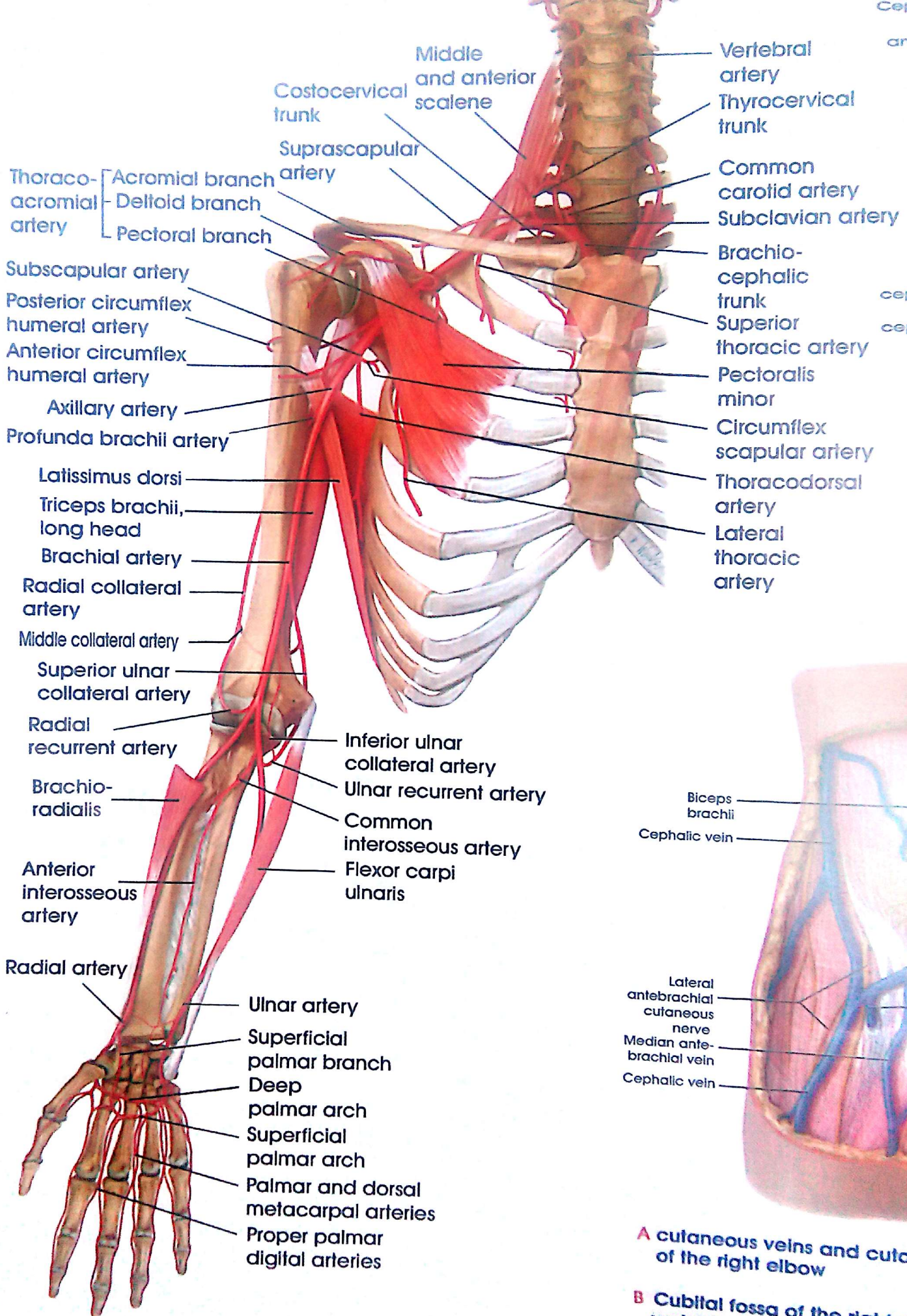
**A** cutaneous veins and cutaneous nerves of the right elbow

**B** Cubital fossa of the right arm: variable course of the subcutaneous veins

- a M-shaped venous pattern above the median antebrachial vein.
  - b Presence of an accessory cephalic vein from the venous plexuses on the extensor side of the forearm.
  - c Absence of the median cubital vein.
- All of the illustrated variants are common.

# Veins of the Upper Limb

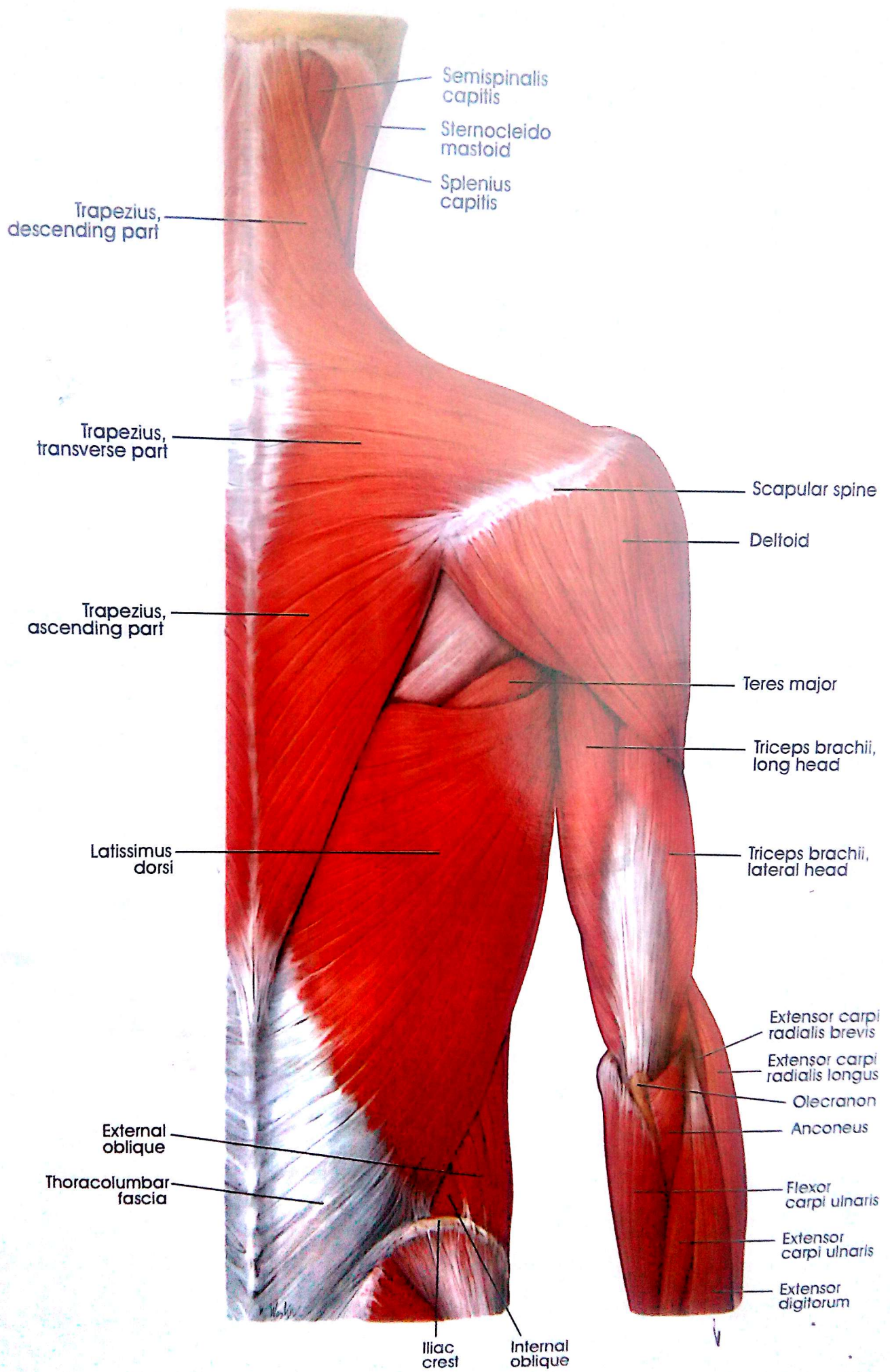




# Arteries of the Right Upper Limb

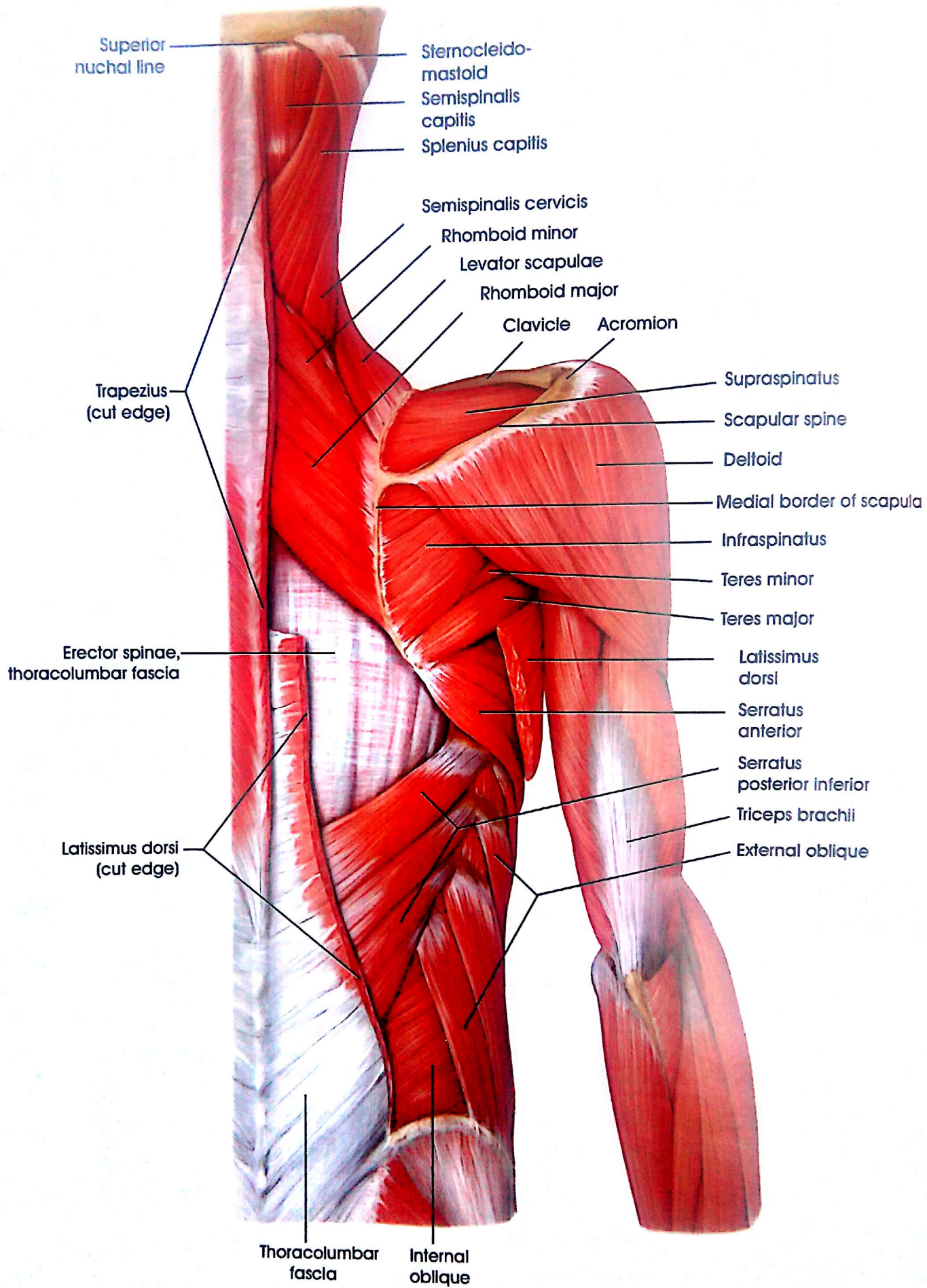
- A** cutaneous veins and cutan of the right elbow
- B** Cubital fossa of the right arm showing variable course of the subcutaneous veins
  - a M-shaped venous pattern above antebrachial vein.
  - b Presence of





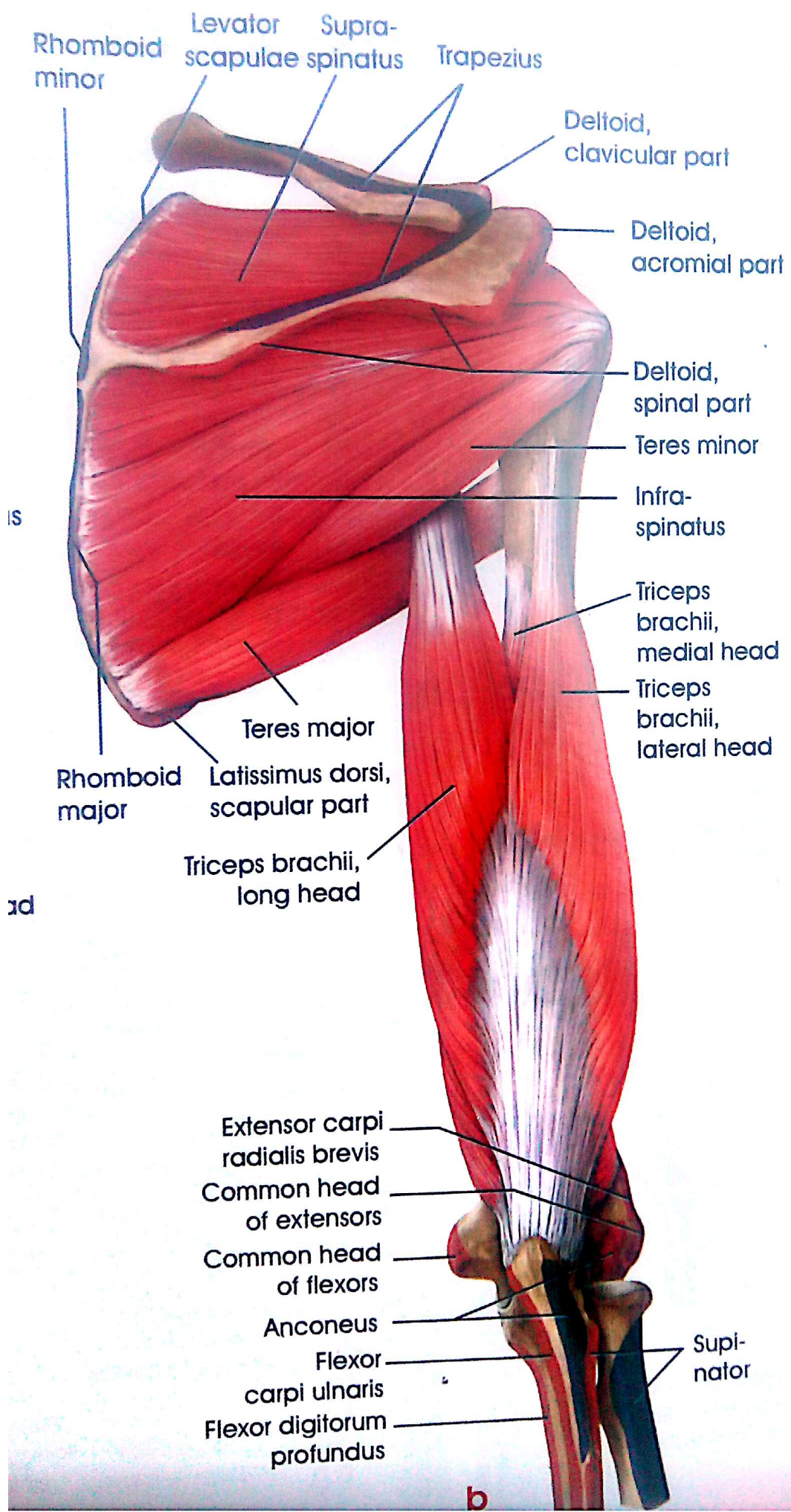
**The Posterior Muscles of the Shoulder Girdle and Shoulder Joint**





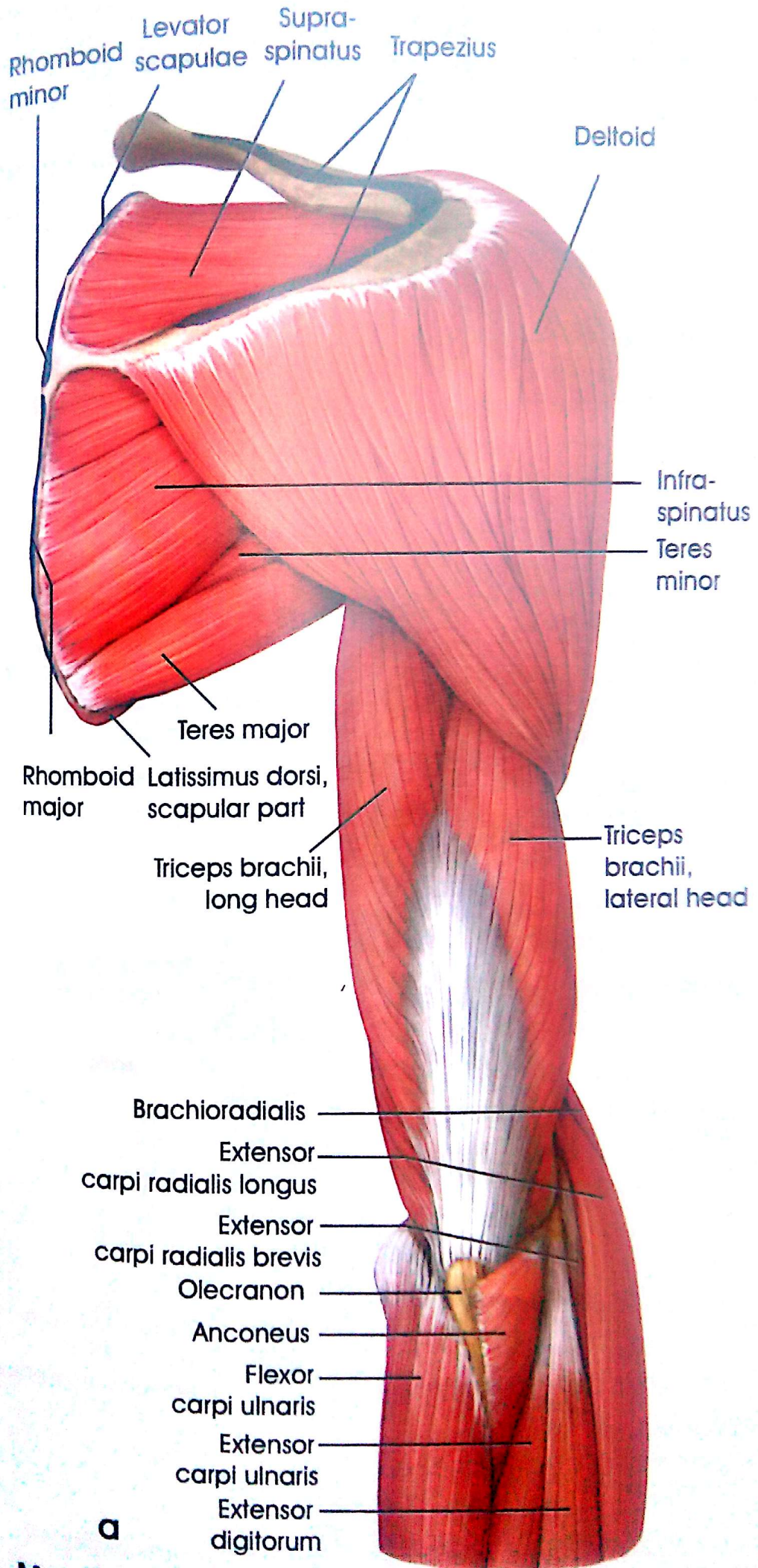
**The Posterior Muscles of the Shoulder Girdle and Shoulder Joint (Deep Layer)**





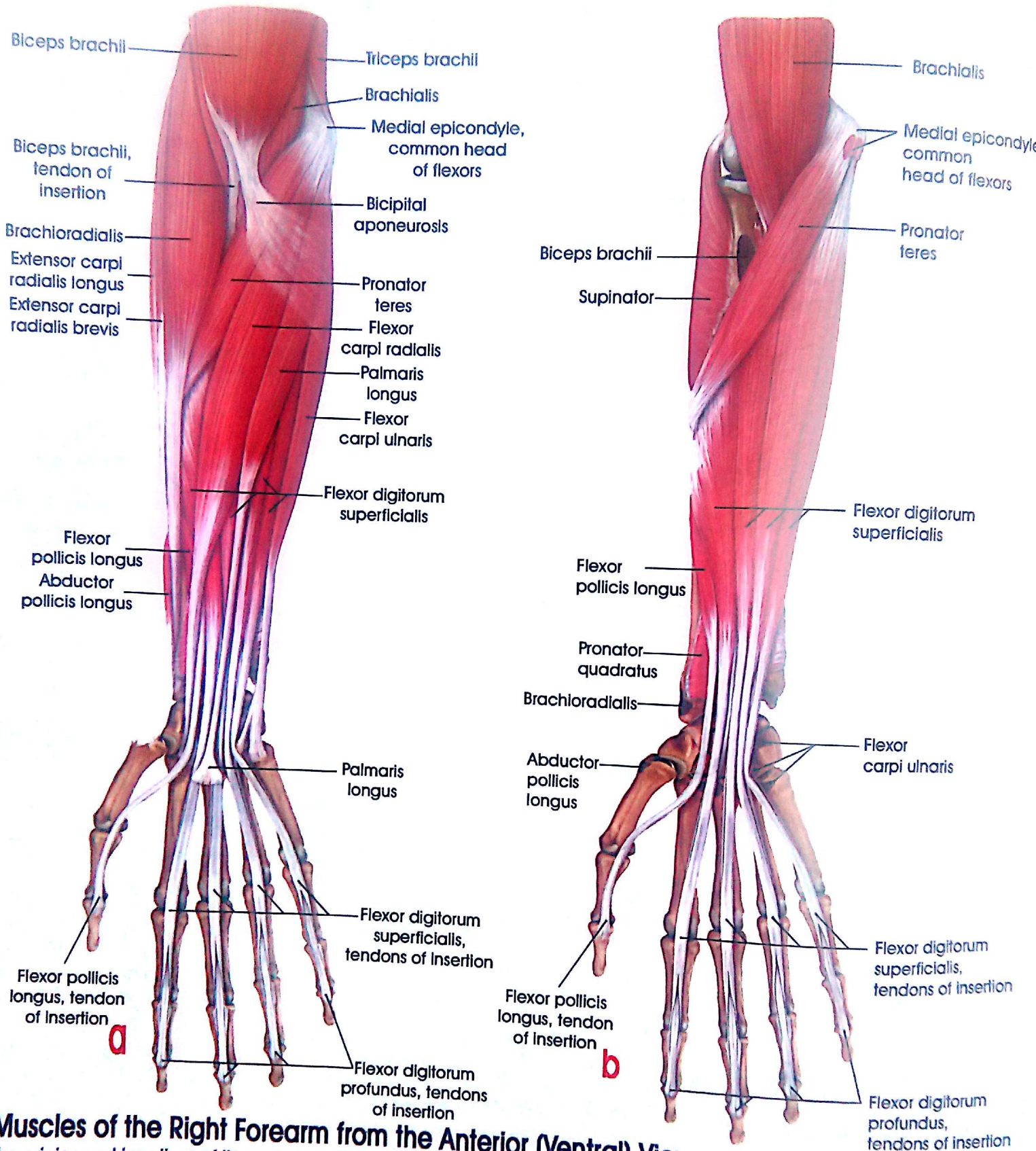
b





a





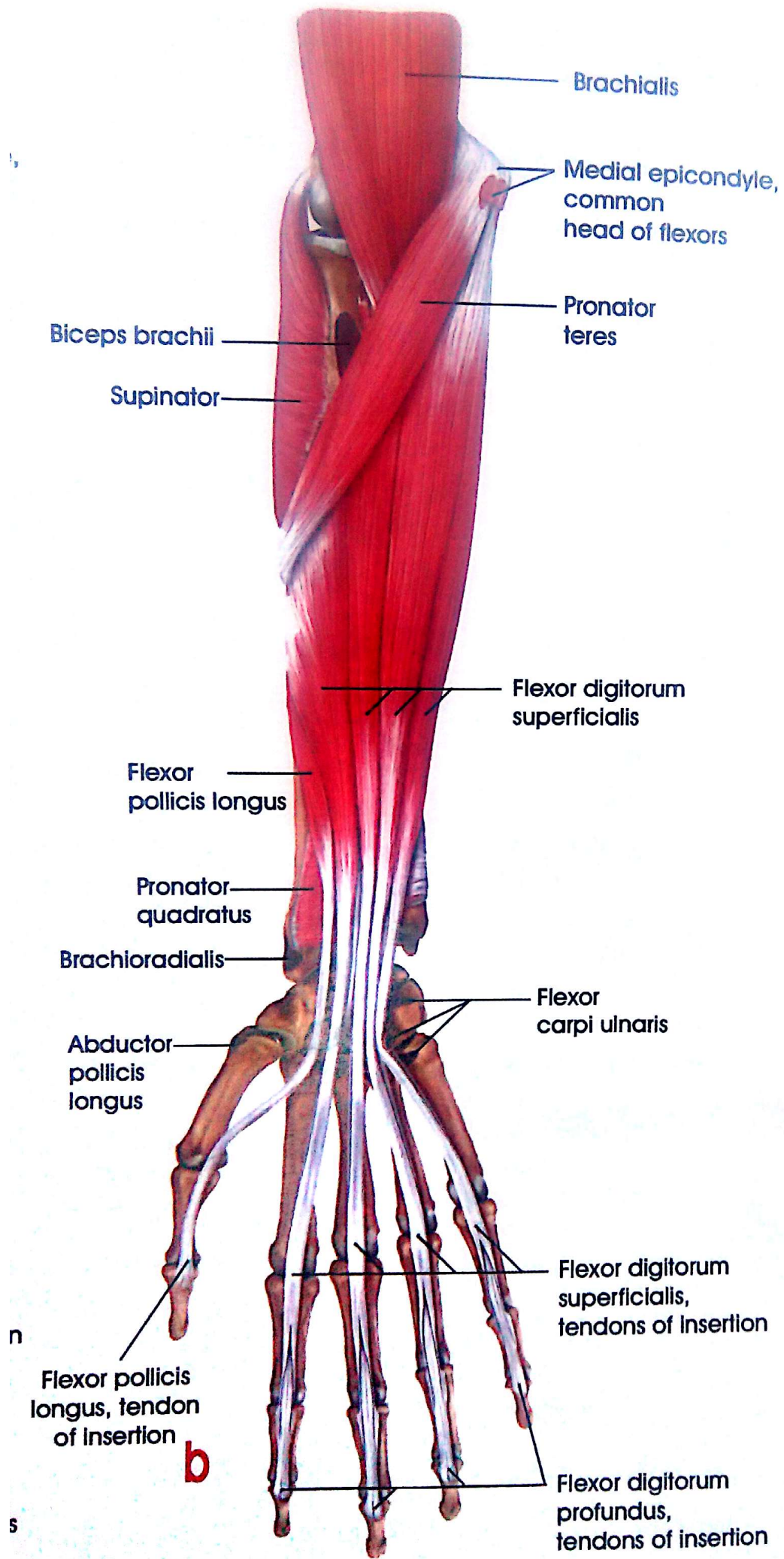
### Muscles of the Right Forearm from the Anterior (Ventral) View

The origins and insertions of the muscles indicated by color shading (red = origin, blue = insertion).

- a** The superficial flexors and the radialis group are shown.
- b** The radialis group (brachioradialis, extensor carpi radialis longus with flexor carpi radialis, flexor carpi ulnaris, abductor pollicis longus, palmaris longus, and biceps brachii).

## The Anterior Muscles of the Forearm



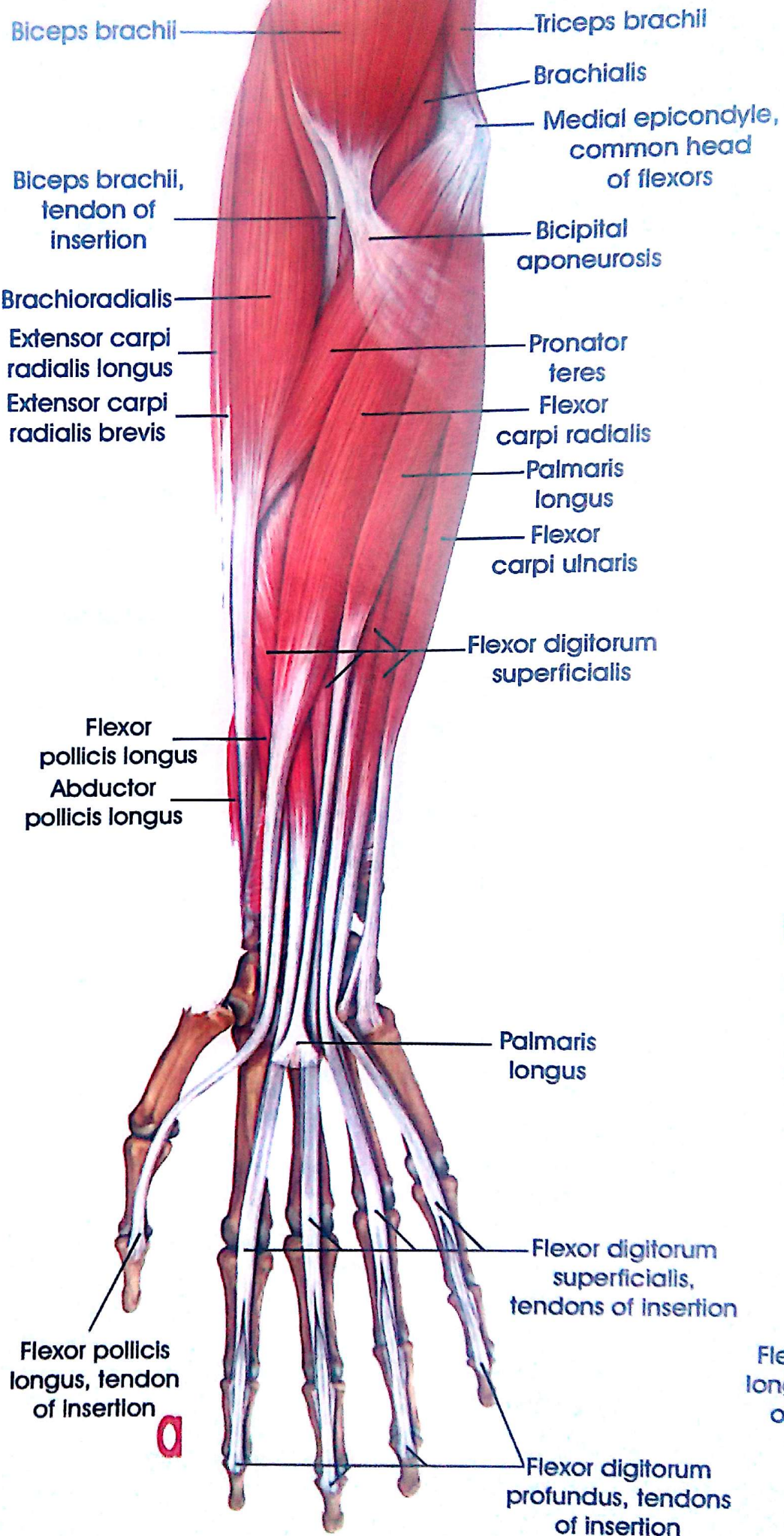


n

**b**

s





# Muscles of the Right Forearm from the Anterior

the origins and insertions of the muscles

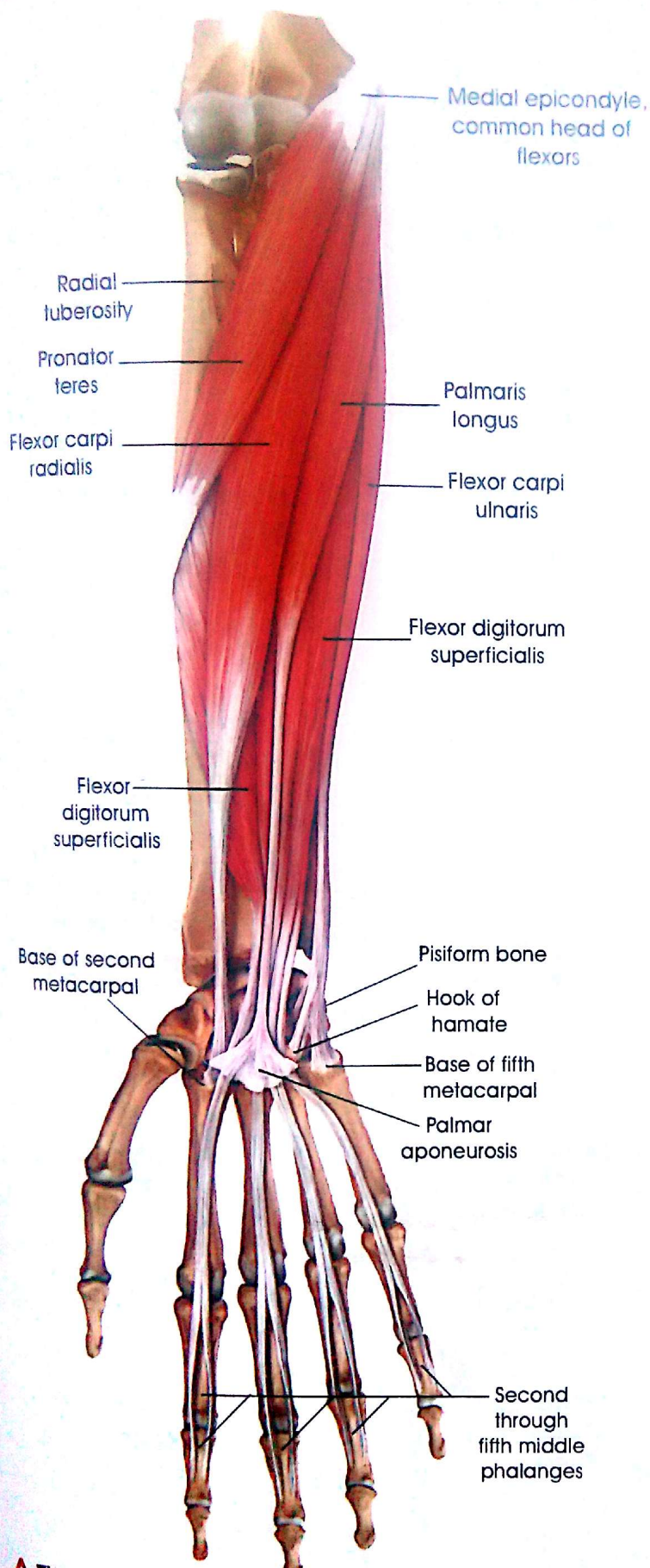
◻ The superficial flexors

B  
A  
F  
k

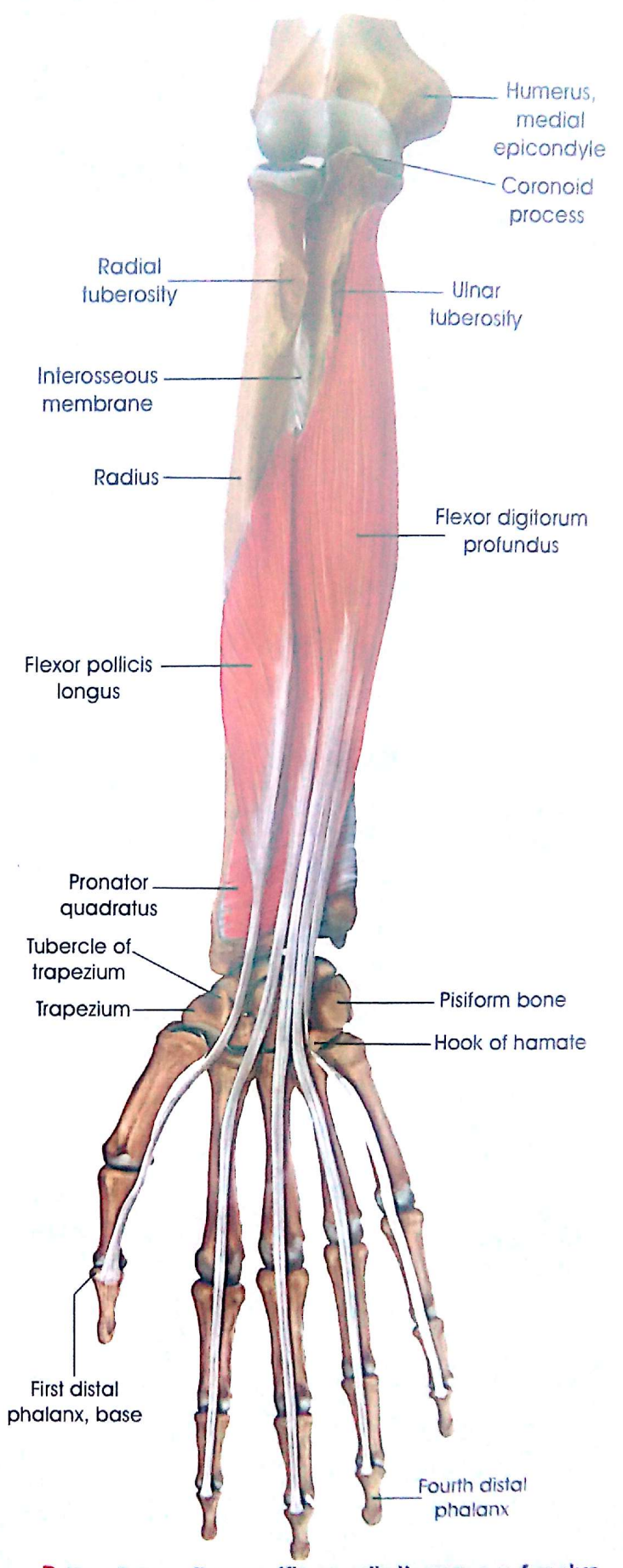
Flex  
long  
of

a





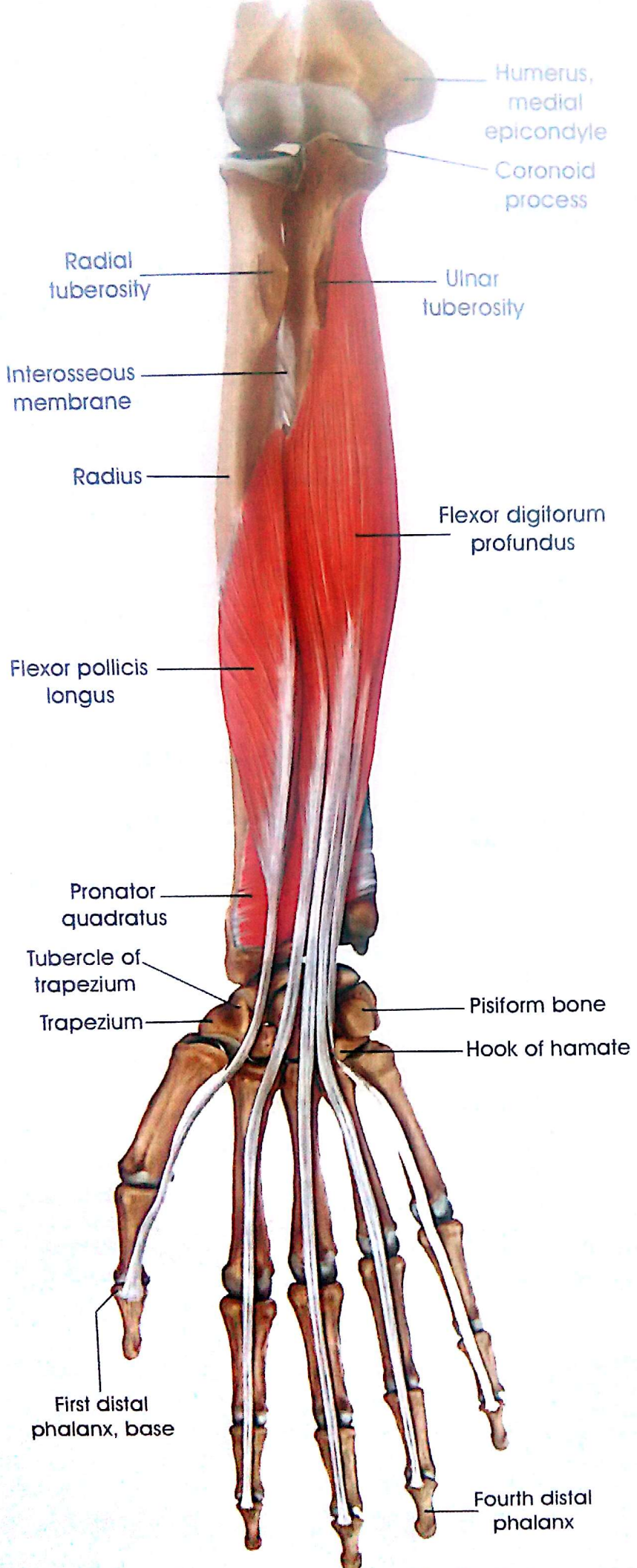
**A** The Superficial flexors (pronator teres, flexor digitorum superficialis, flexor carpi radialis, flexor carpi ulnaris, and palmaris longus)



**B** The Deep flexors (flexor digitorum profundus, flexor pollicis longus, and pronator quadratus)

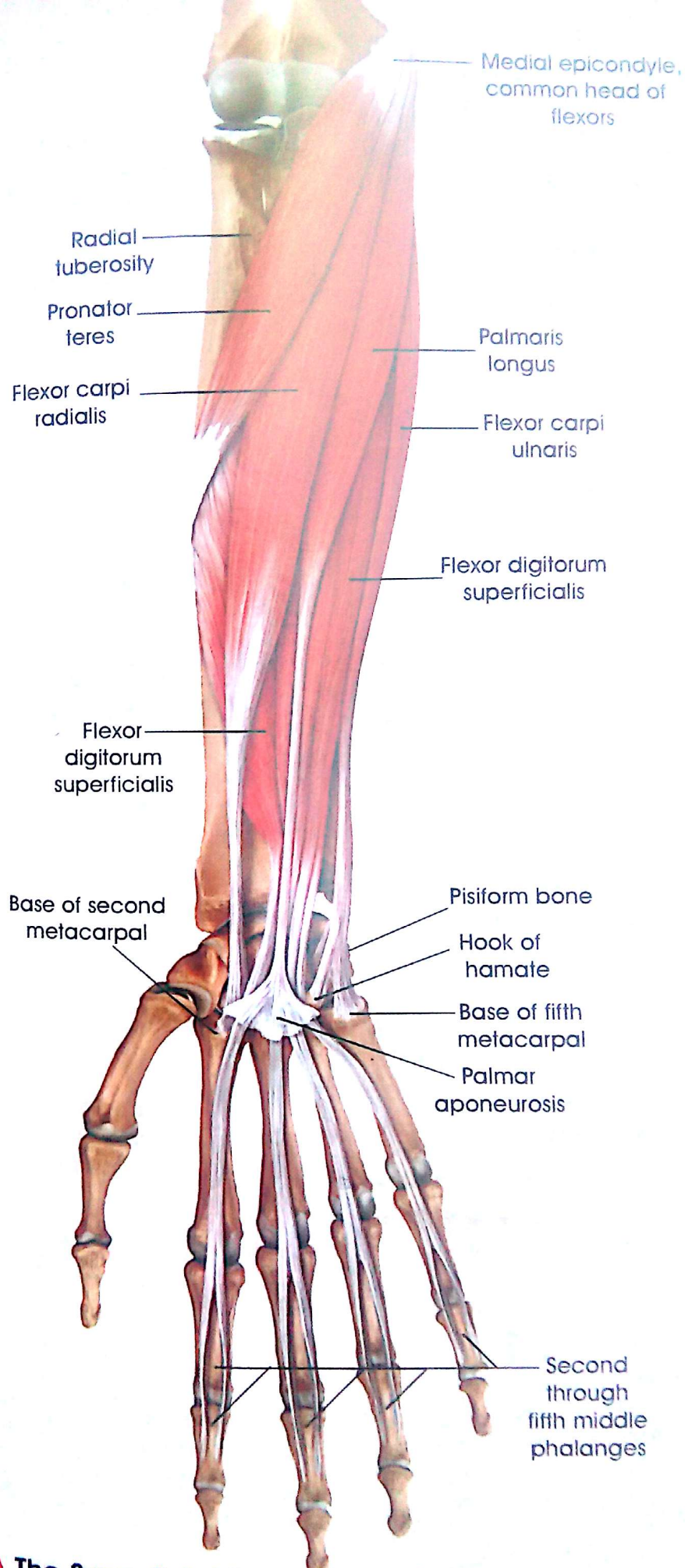
## The Anterior Muscles of The Right Forearm





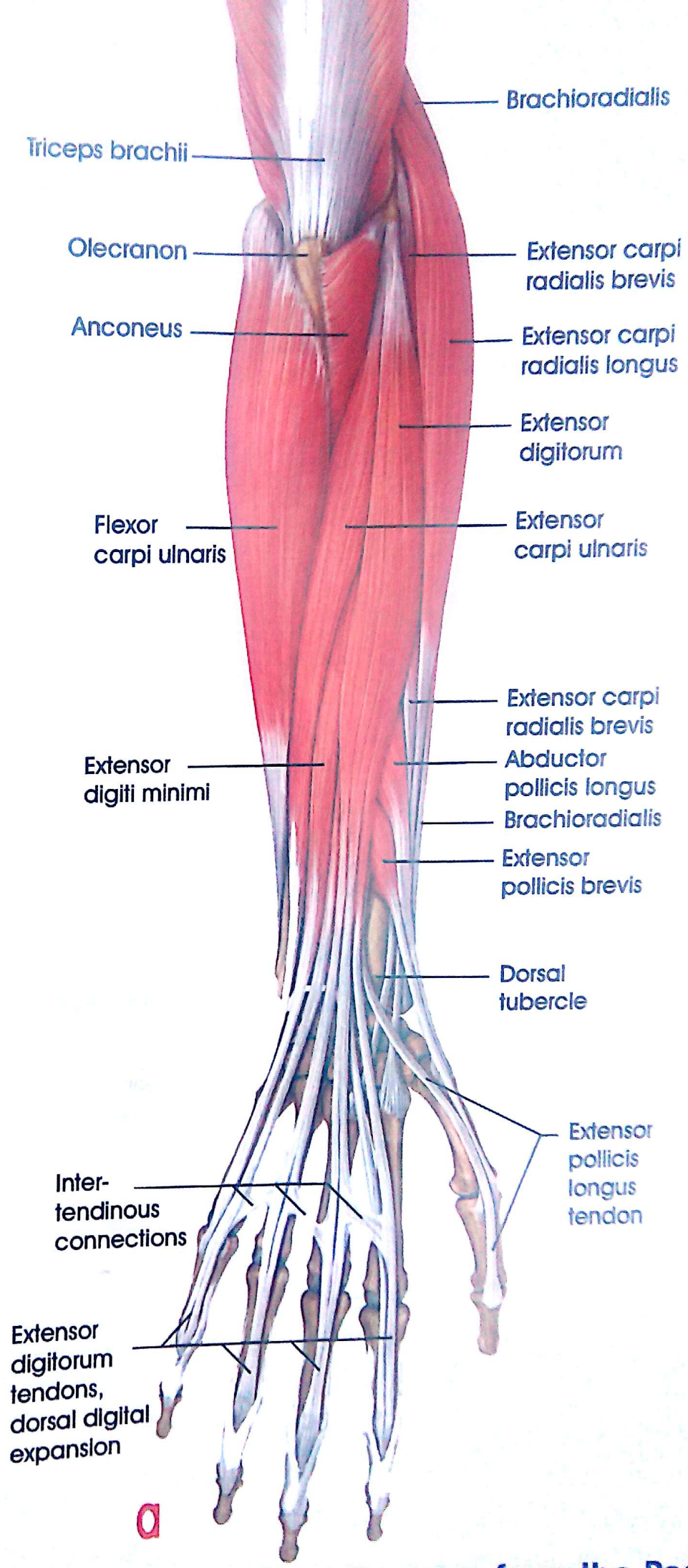
**B** The Deep flexors (flexor digitorum profundus, flexor pollicis longus, and





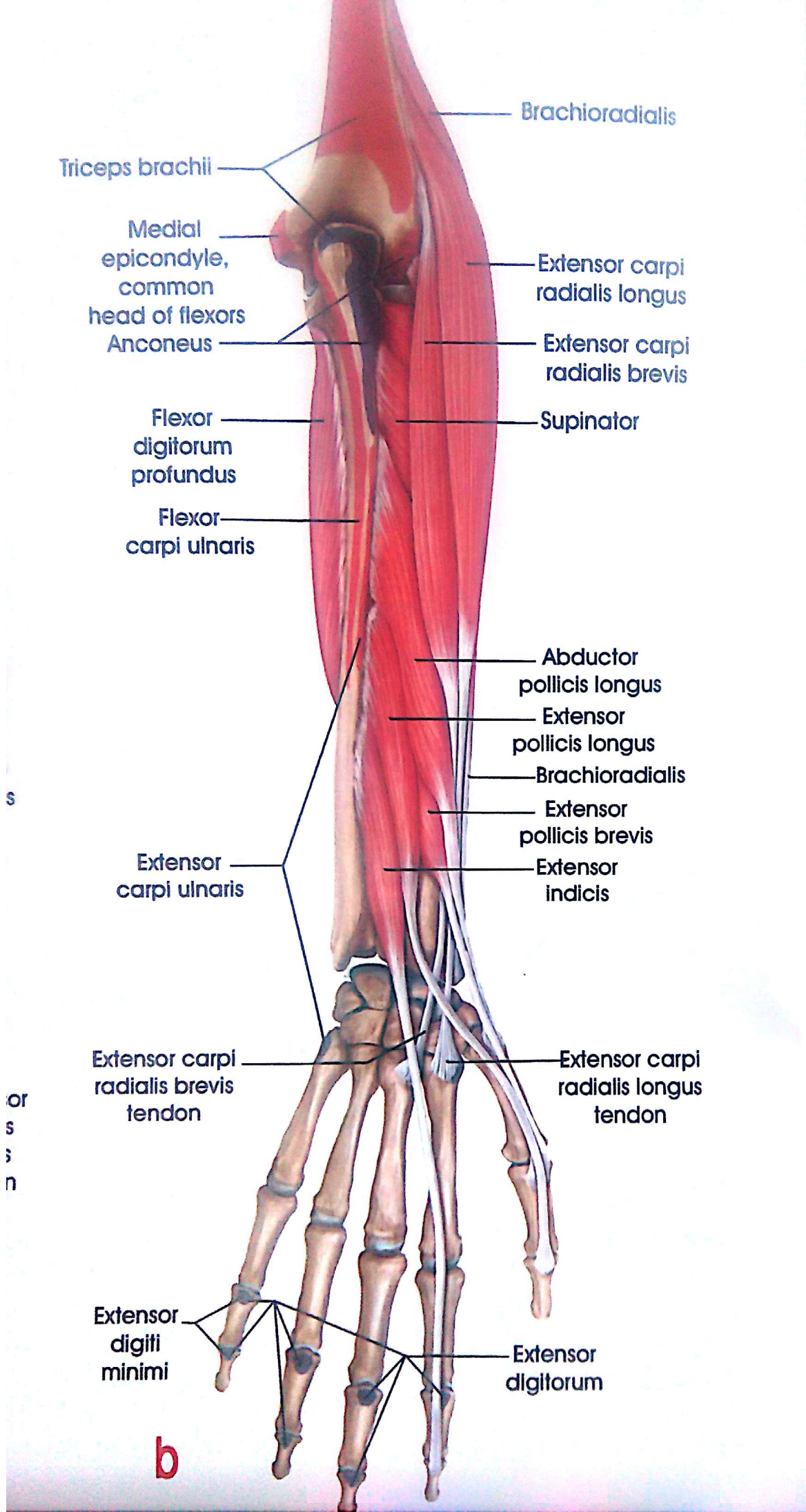
**A** The Superficial flexors (pronator teres, flexor digitorum superficialis, flexor carpi radialis, flexor carpi ulnaris, and palmaris longus)





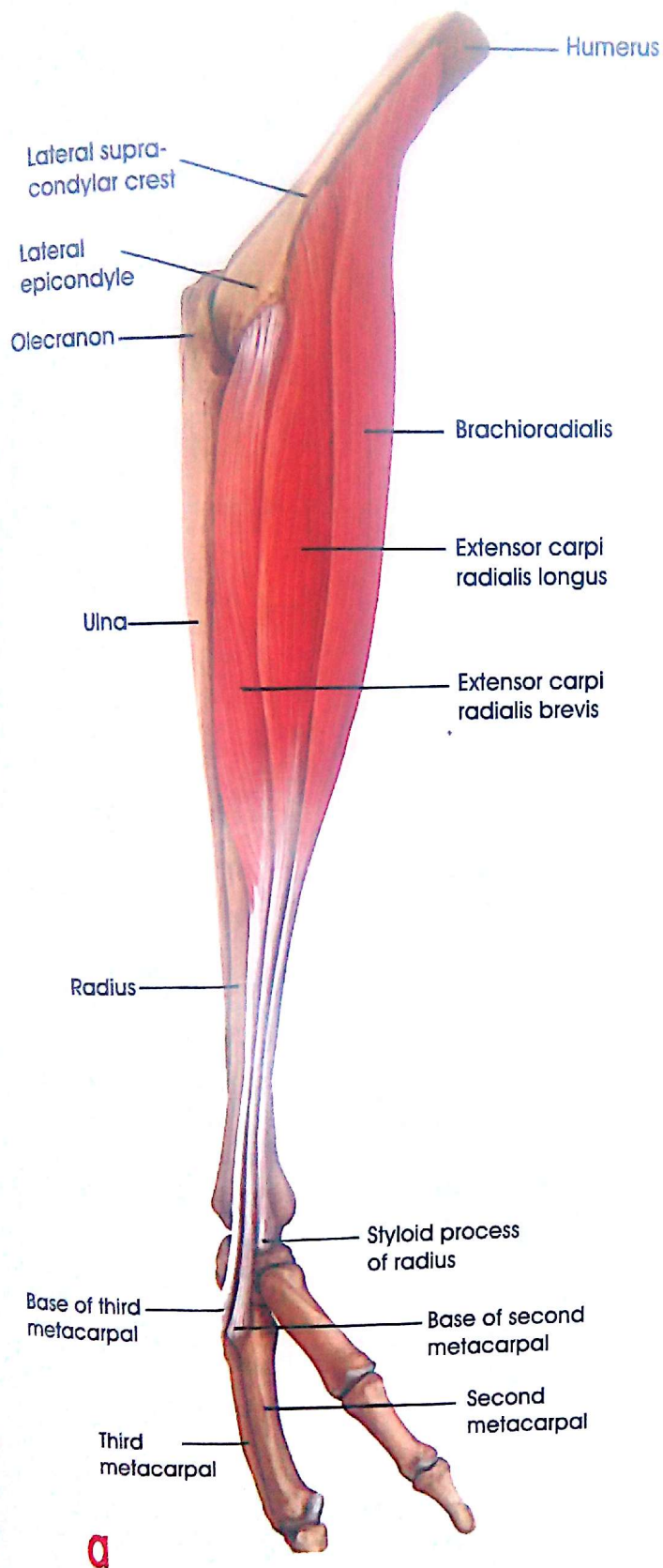
a



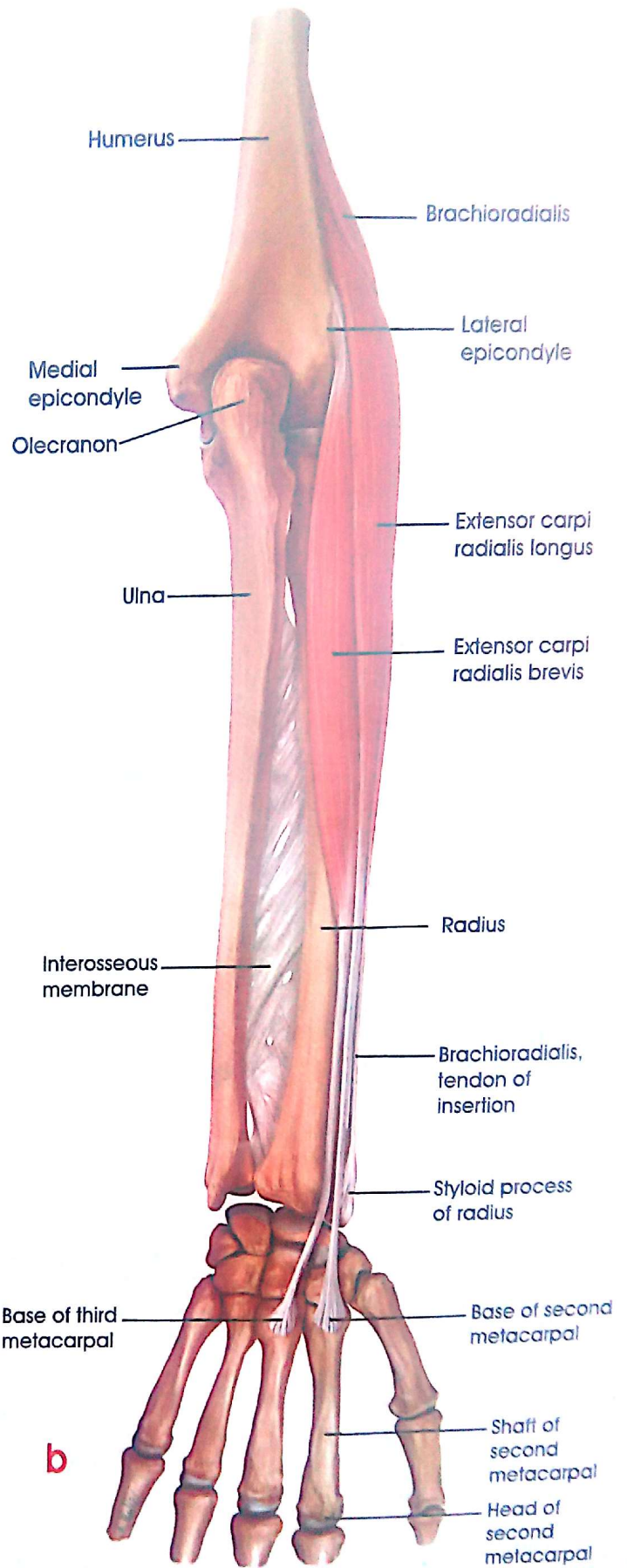


**b**





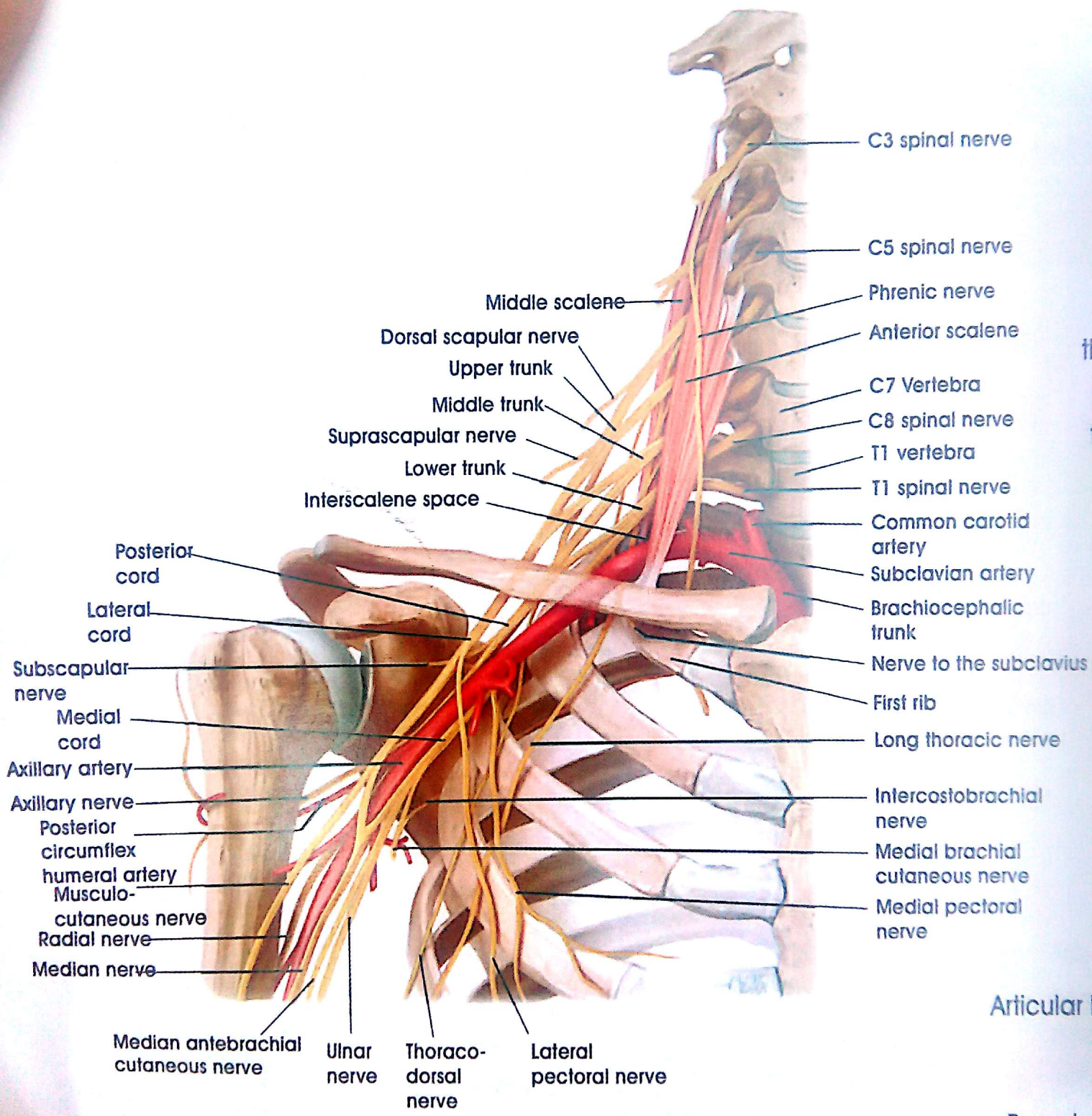
**Lateral (Radial) View**



**Posterior (Dorsal) View**

**The Radialis Muscles (brachioradialis, extensor carpi radialis longus, and extensor carpi radialis brevis)**

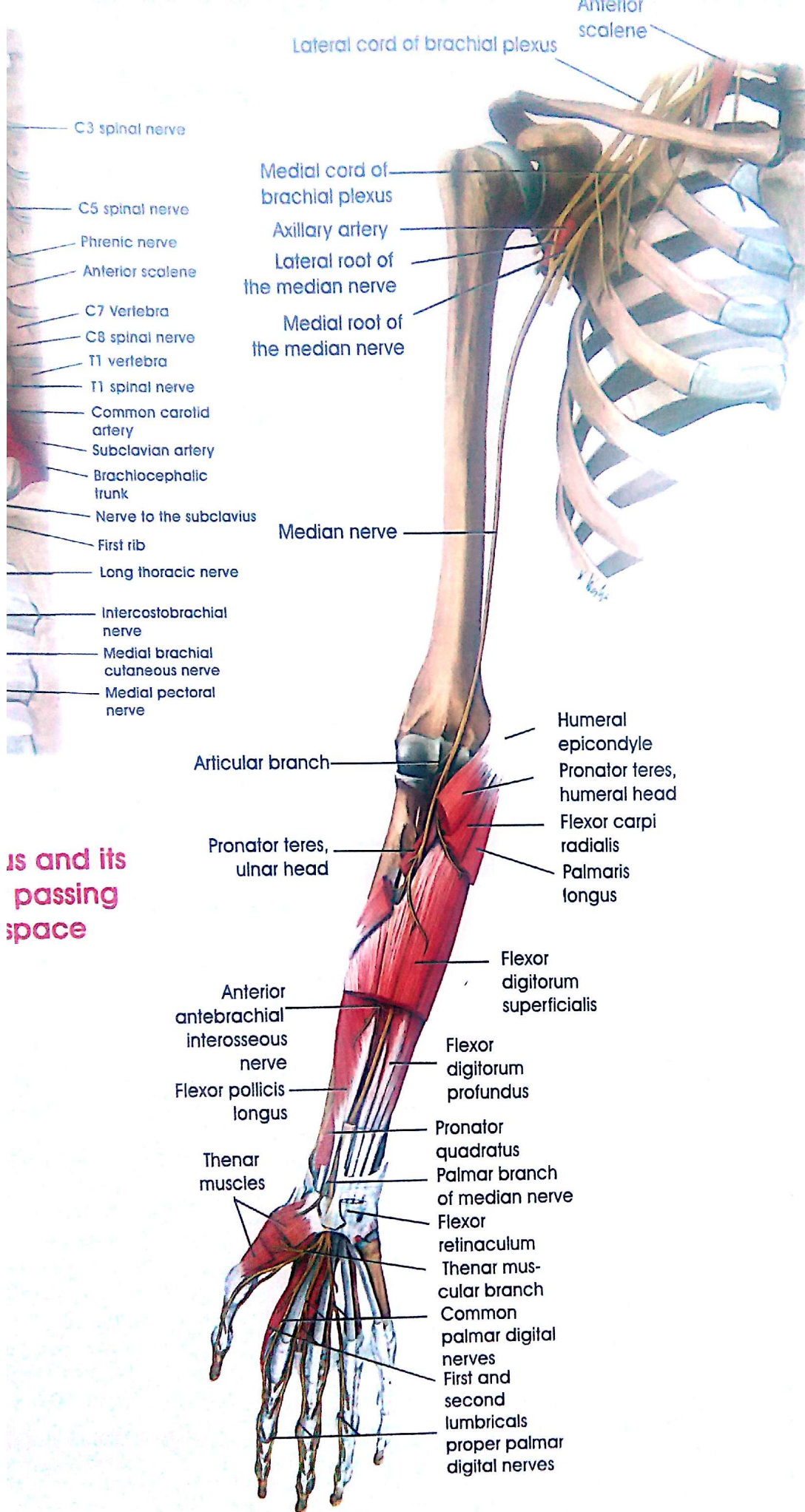




**Course of the Brachial Plexus and its relation to the thorax after passing through the interscalene space**

Articular b  
 Pronator  
 ulnar  
 Anterior

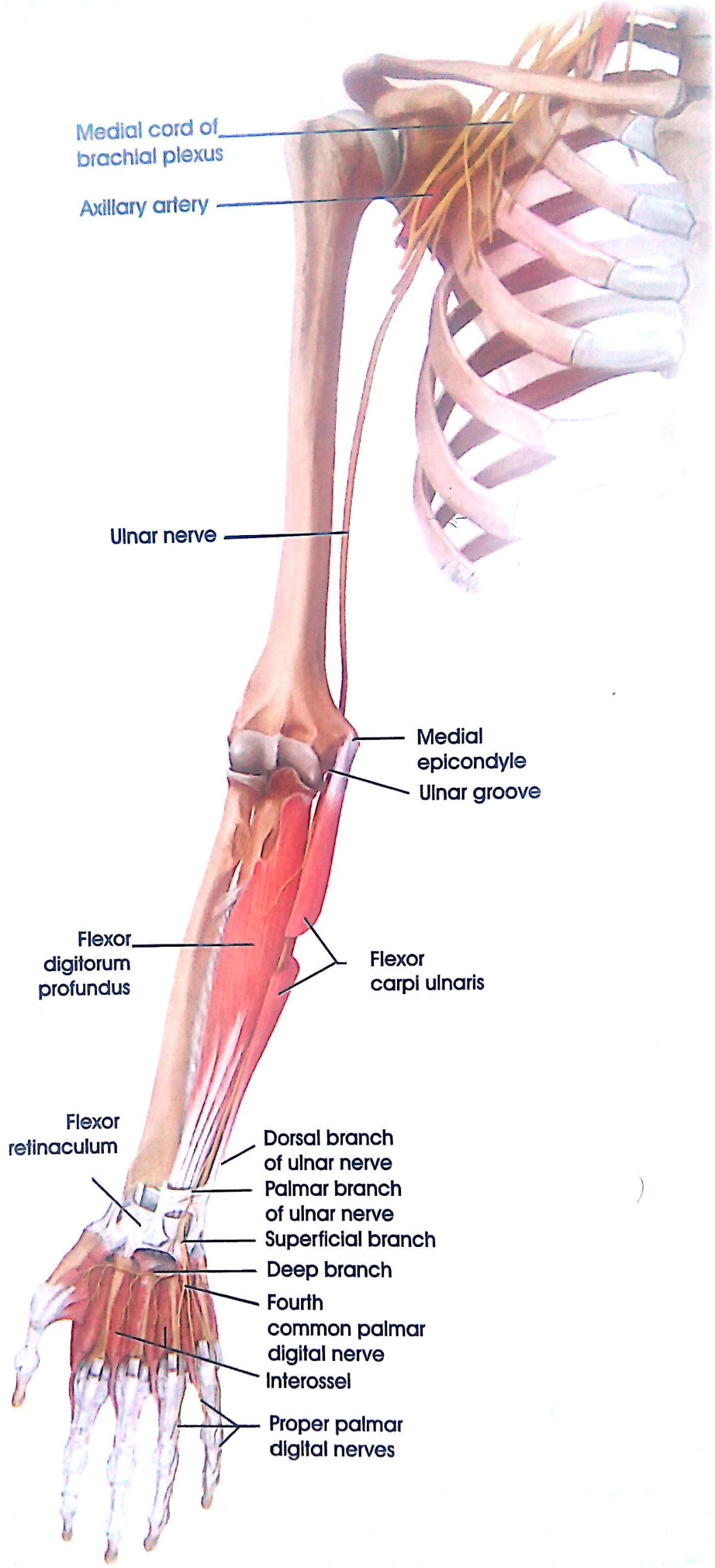




**is and its passing space**

## Course and Distribution of the Median Nerve





Medial cord of brachial plexus

Axillary artery

Ulnar nerve

Medial epicondyle

Ulnar groove

Flexor digitorum profundus

Flexor carpi ulnaris

Flexor retinaculum

Dorsal branch of ulnar nerve

Palmar branch of ulnar nerve

Superficial branch

Deep branch

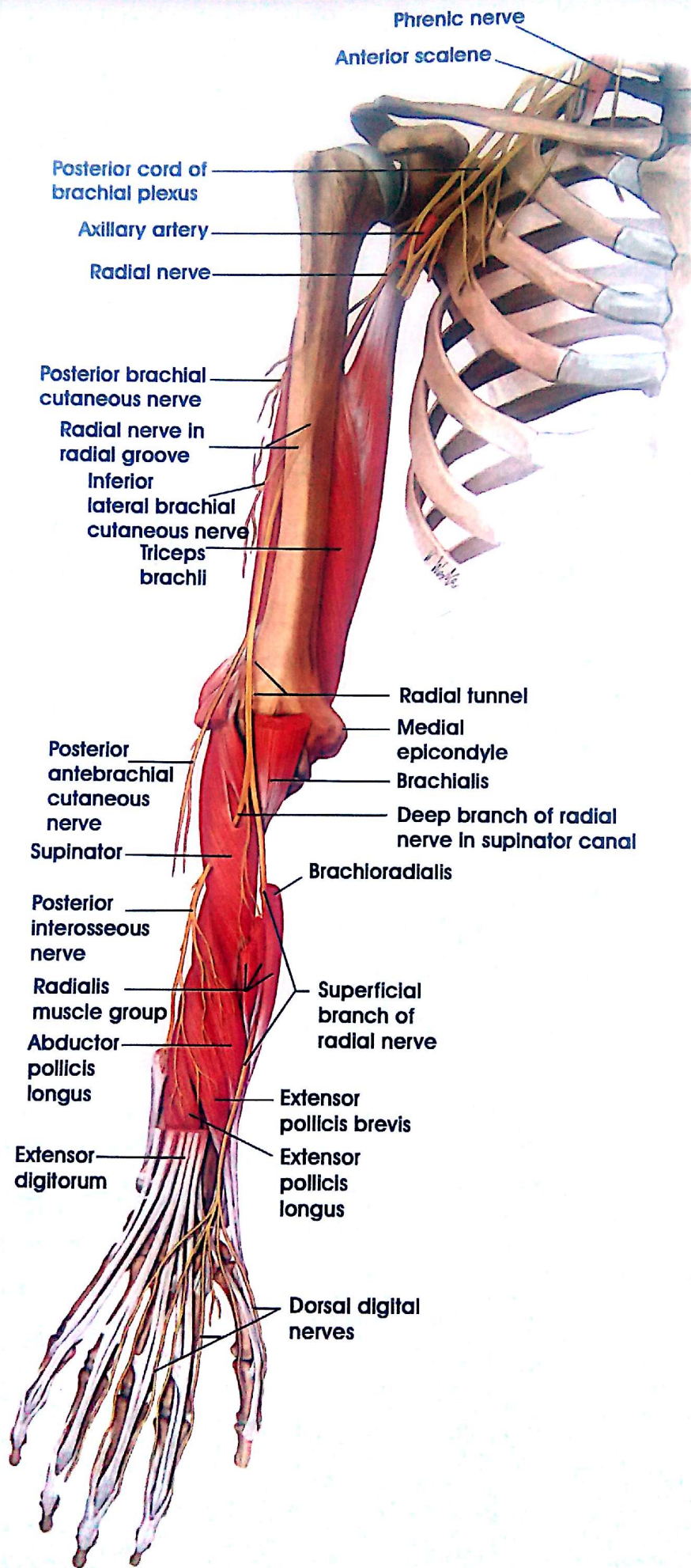
Fourth common palmar digital nerve

Interosseal

Proper palmar digital nerves

# Course and Distribution of Ulnar Nerve





## Course and Distribution of Radial Nerve



Palmar digital nerves

Palmar digital arteries

Common palmar digital arteries

Abductor digiti minimi

Flexor digiti minimi

Palmar metacarpal arteries

Opponens digiti minimi

Superficial palmar arch

Ulnar nerve, deep branch

Ulnar nerve, superficial branch

Ulnar artery, deep branch

Ulnar artery and nerve

Pronator quadratus

Flexor carpi ulnaris

Lumbricals

Adductor pollicis, transverse head

Abductor pollicis brevis

Flexor pollicis brevis

Adductor pollicis, oblique head

Deep palmar arch

Opponens pollicis

Radial artery, superficial palmar branch

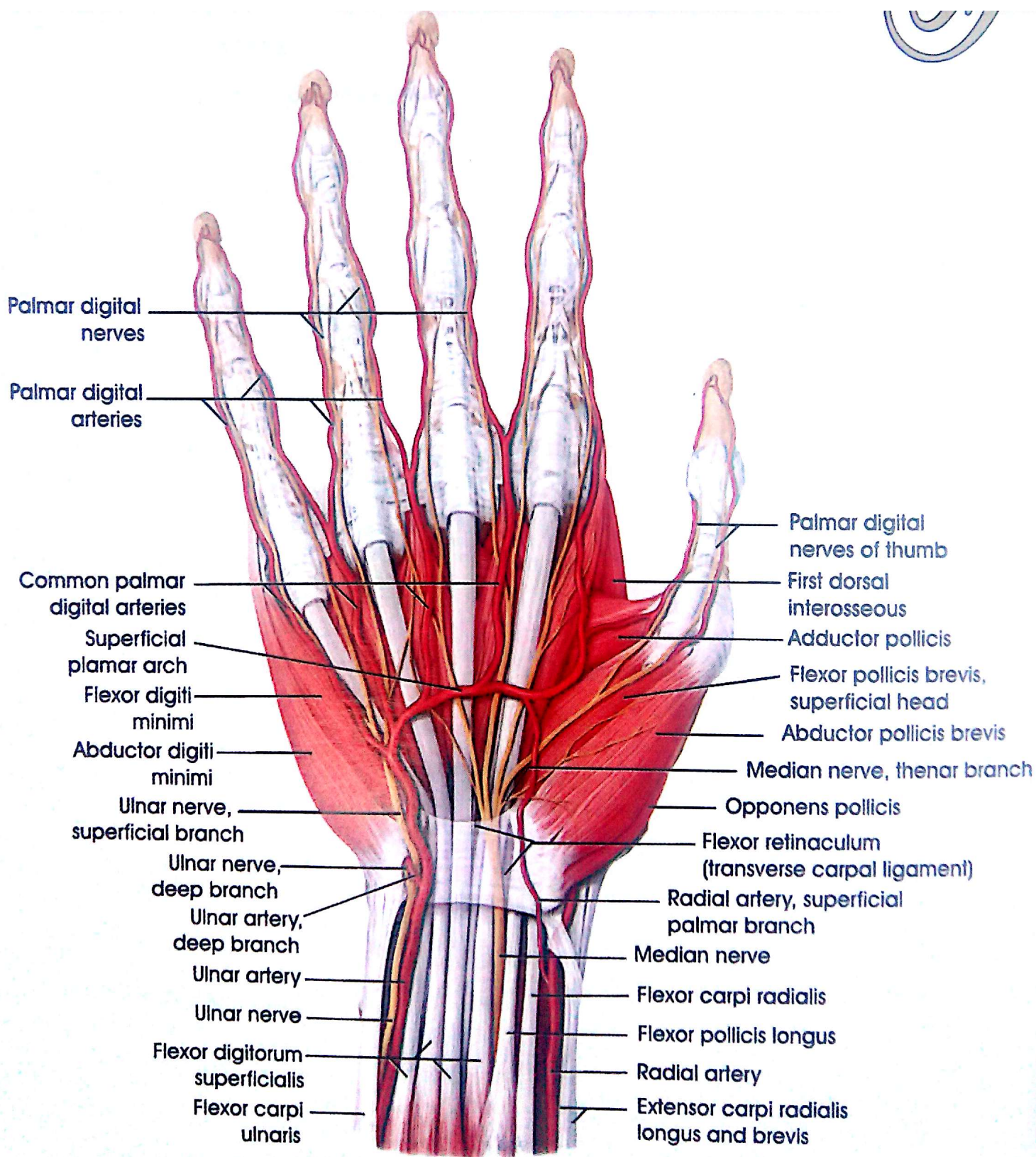
Radial artery

Anterior interosseous artery

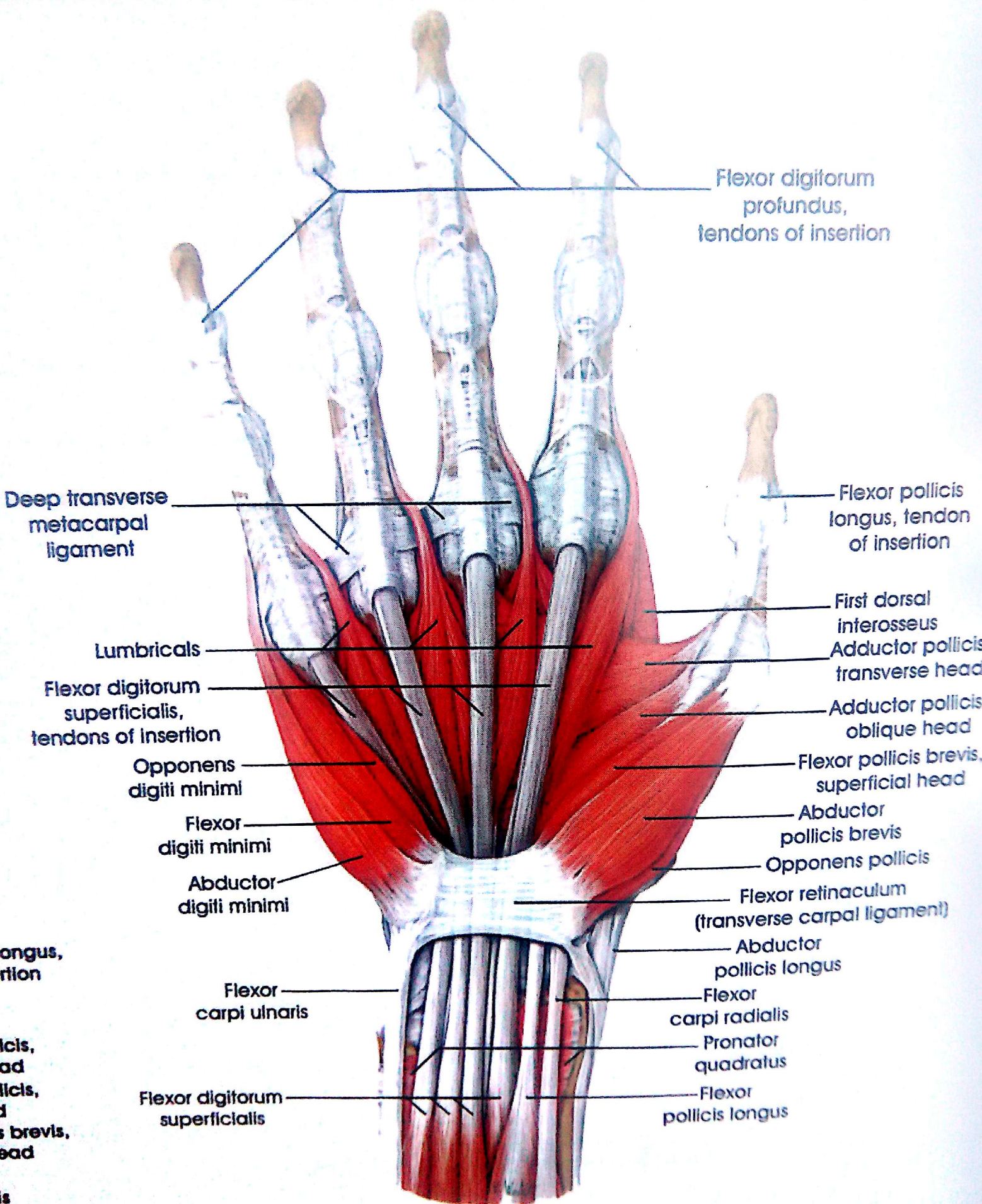
# Superficial and Deep Palmar Arch

BY: DR. MOHAMED









Flexor digitorum profundus, tendons of insertion

Deep transverse metacarpal ligament

Flexor pollicis longus, tendon of insertion

Lumbricals

First dorsal interosseus  
Adductor pollicis, transverse head

Flexor digitorum superficialis, tendons of insertion

Adductor pollicis, oblique head

Opponens digiti minimi

Flexor pollicis brevis, superficial head

Flexor digiti minimi

Abductor pollicis brevis

Abductor digiti minimi

Opponens pollicis

Flexor retinaculum (transverse carpal ligament)

Flexor carpi ulnaris

Abductor pollicis longus

Flexor carpi radialis

Pronator quadratus

Flexor digitorum superficialis

Flexor pollicis longus

# Superficial Muscles of the right hand

longus, insertion

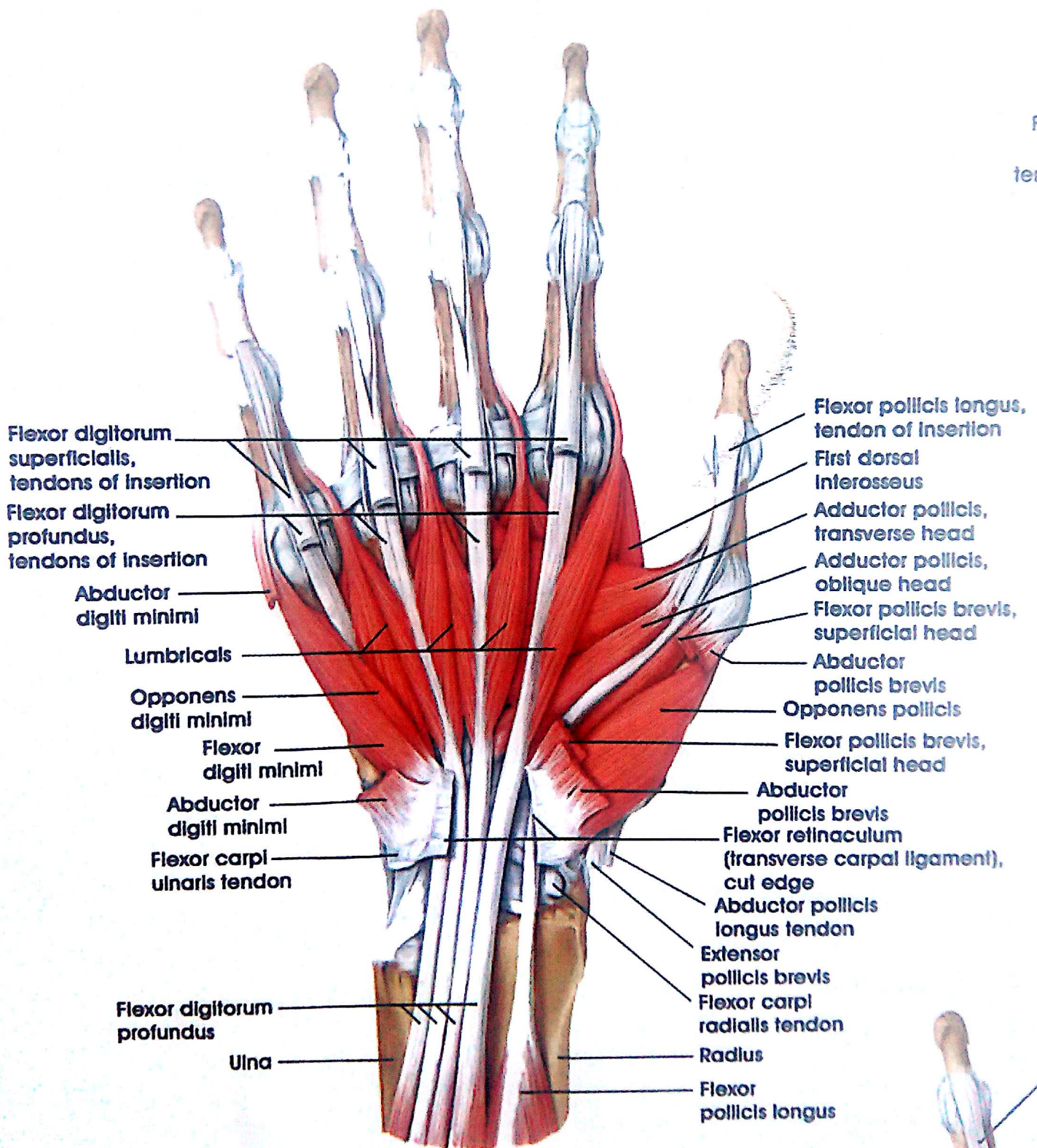
illicis, head  
illicis, head  
is brevis, head

is  
illicis  
brevis, head



Deep fr  
meta  
liga

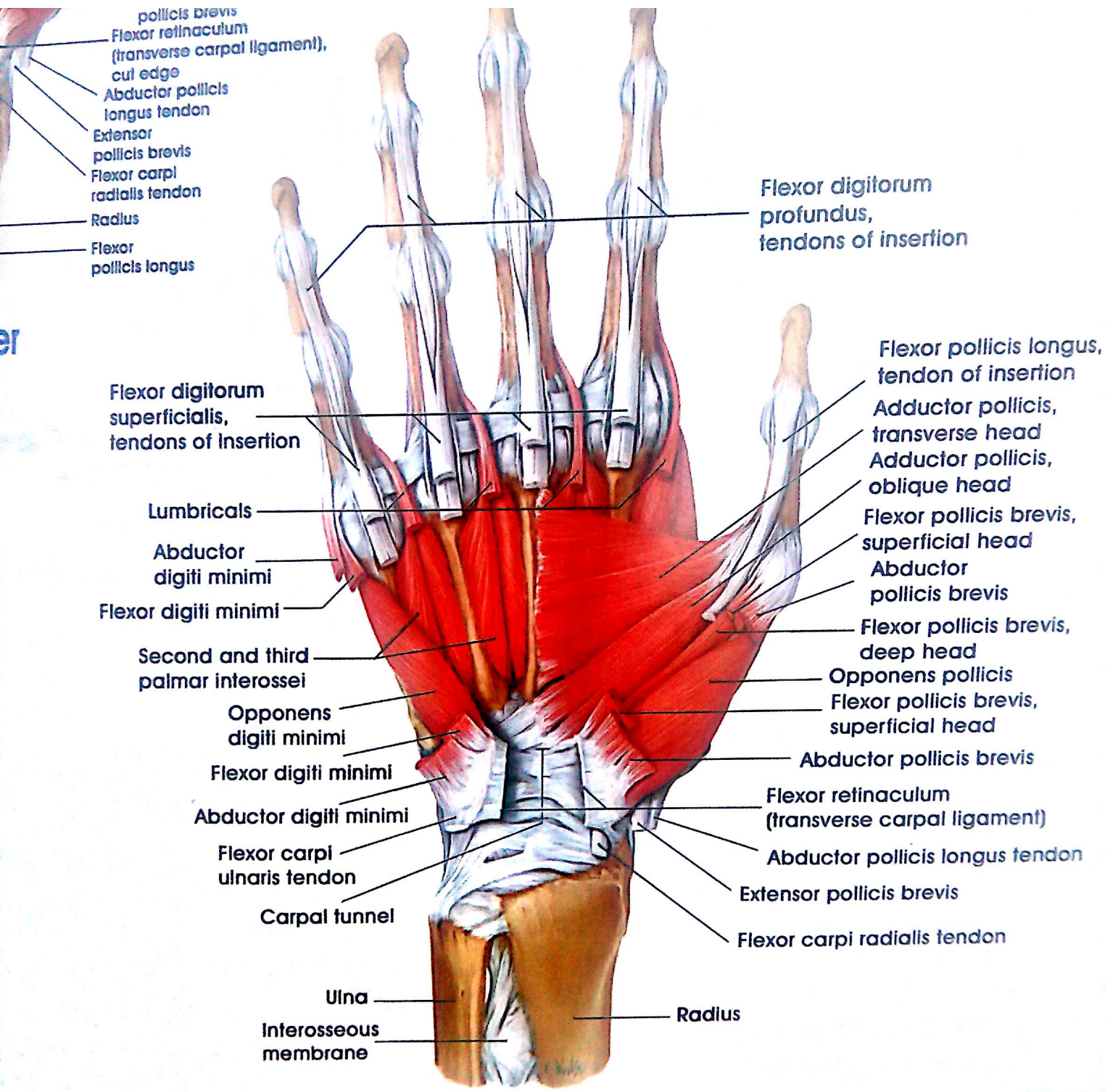
Flexor  
sup  
tendon



### Middle layer

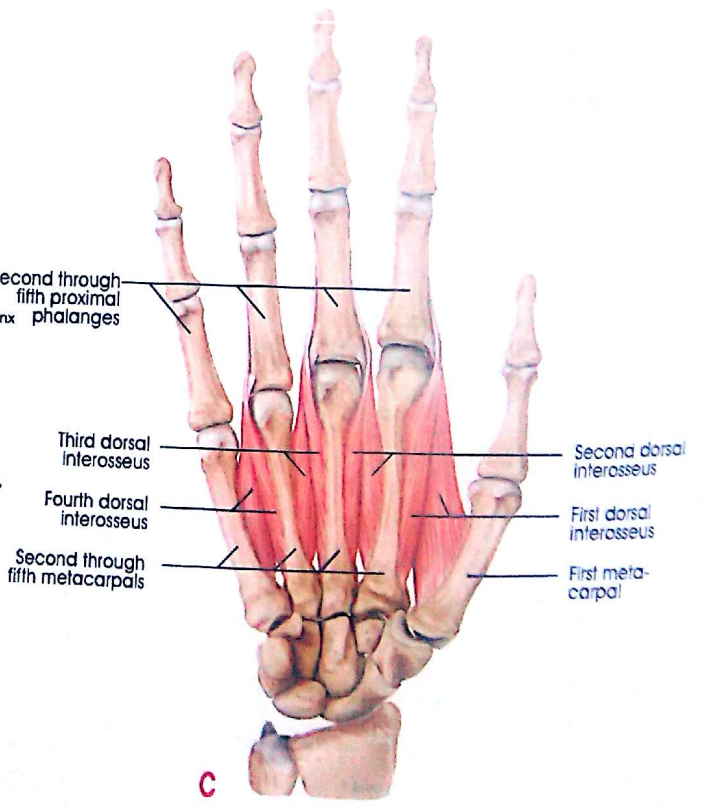
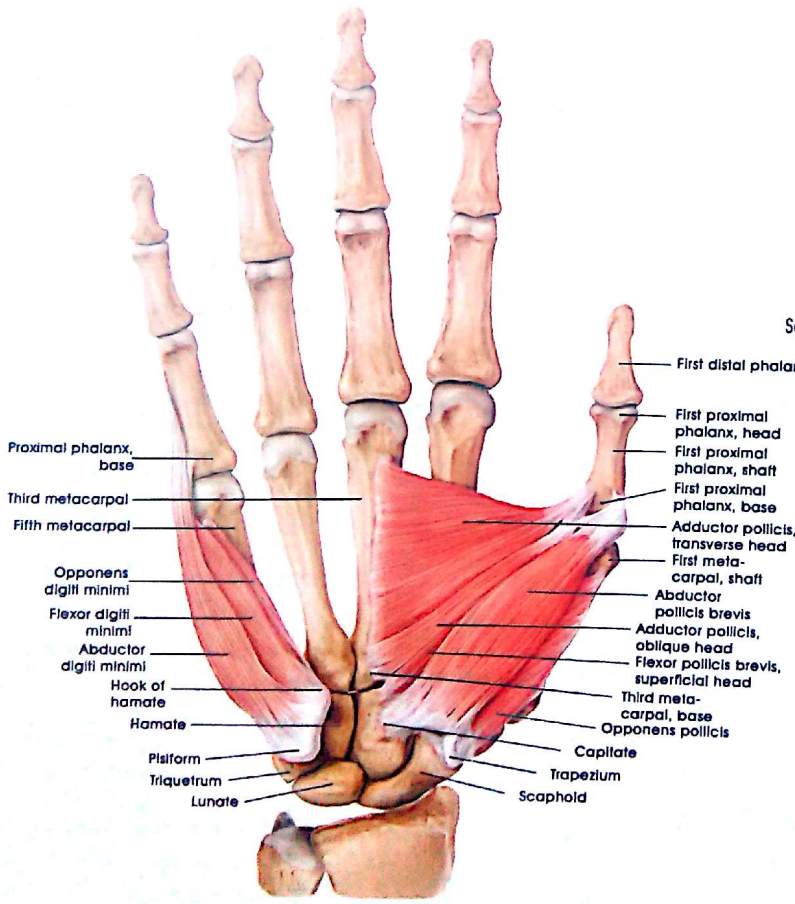
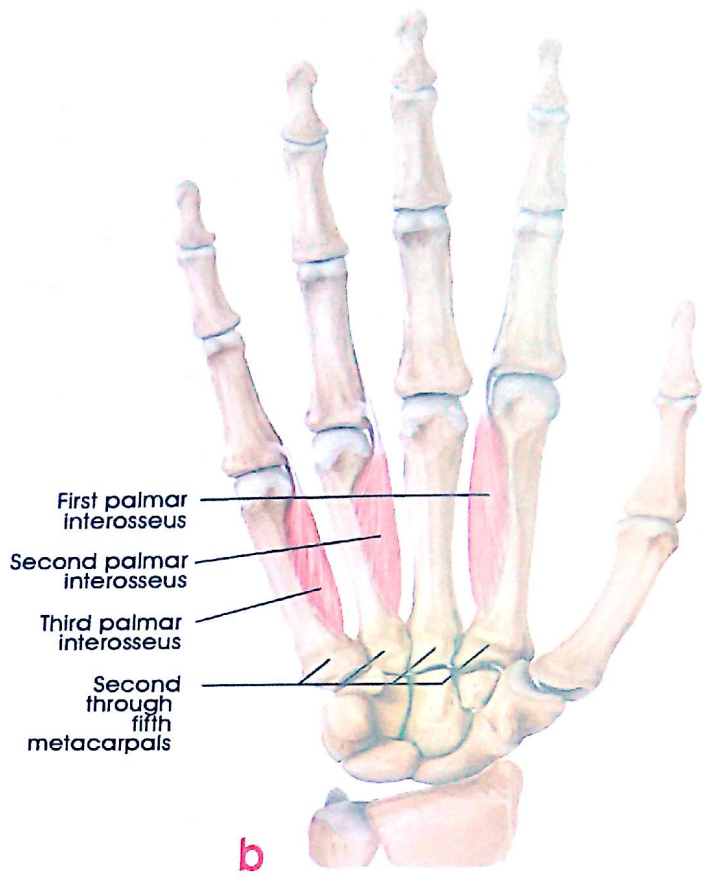
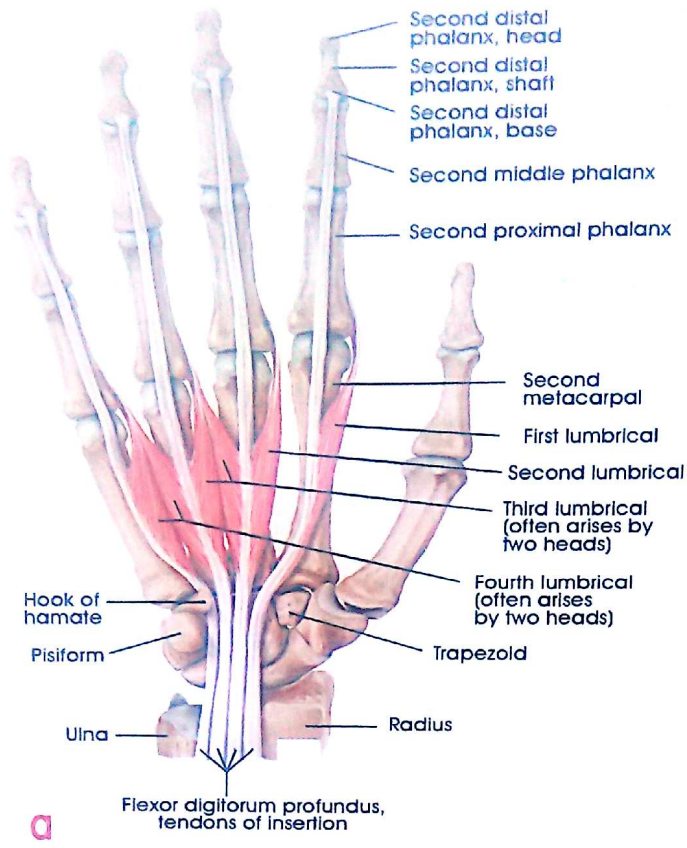
Flexor digitorum





# The Intrinsic Muscles of the Hand





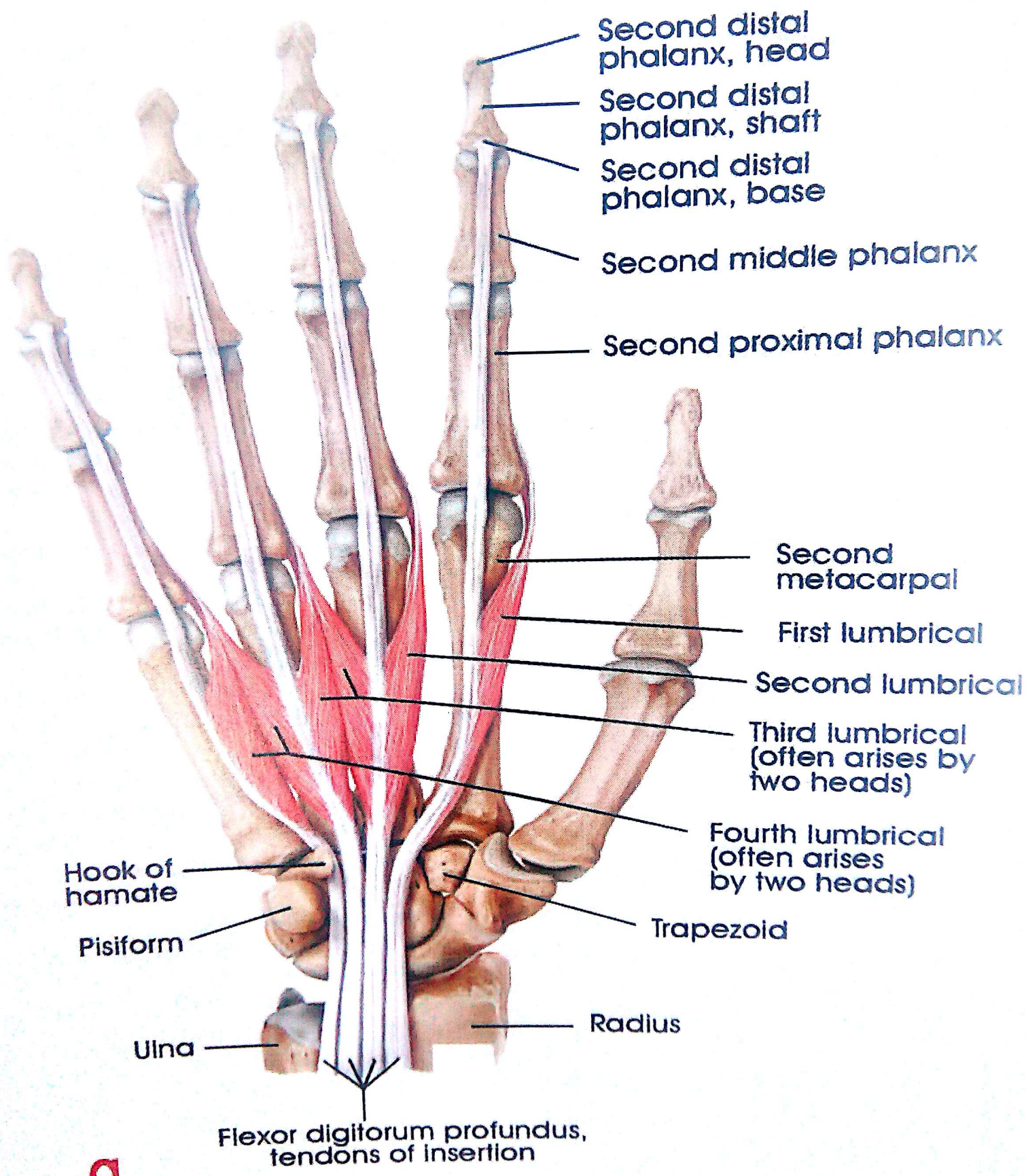
**The Thenar Muscles ( abductor pollicis brevis, adductor pollicis, flexor pollicis brevis, and opponens pollicis) and the hypothenar muscles (abductor digiti minimi, flexor digiti minimi, and opponens digiti minimi)**  
 Right Hand, Anterior View

**The Muscles of the Hand**  
 Right hand, Anterior View.

- a First through fourth lumbricals.
- b First through third palmar interossei.
- c First through fourth dorsal interossei.

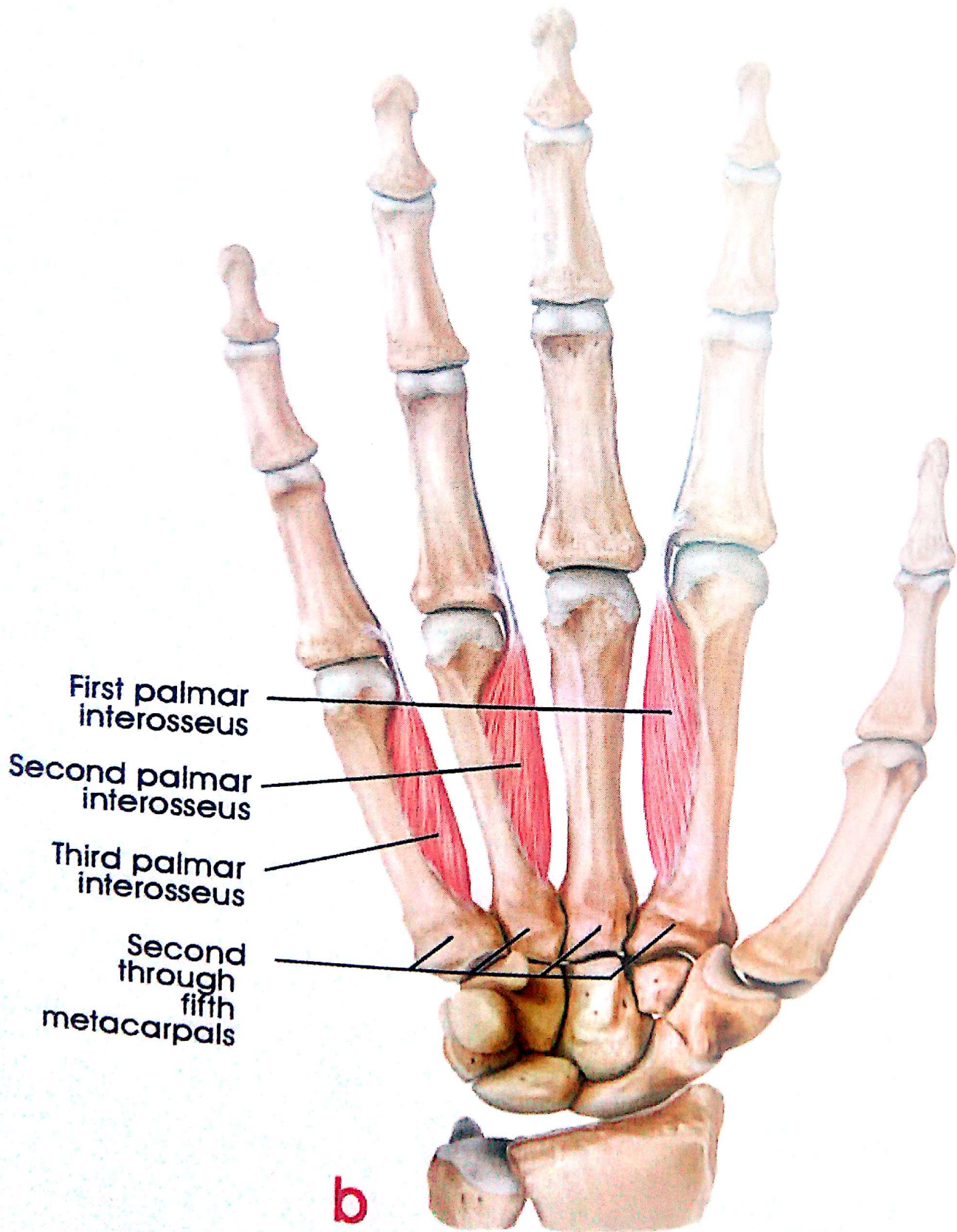
## The Intrinsic Muscles of the Hand



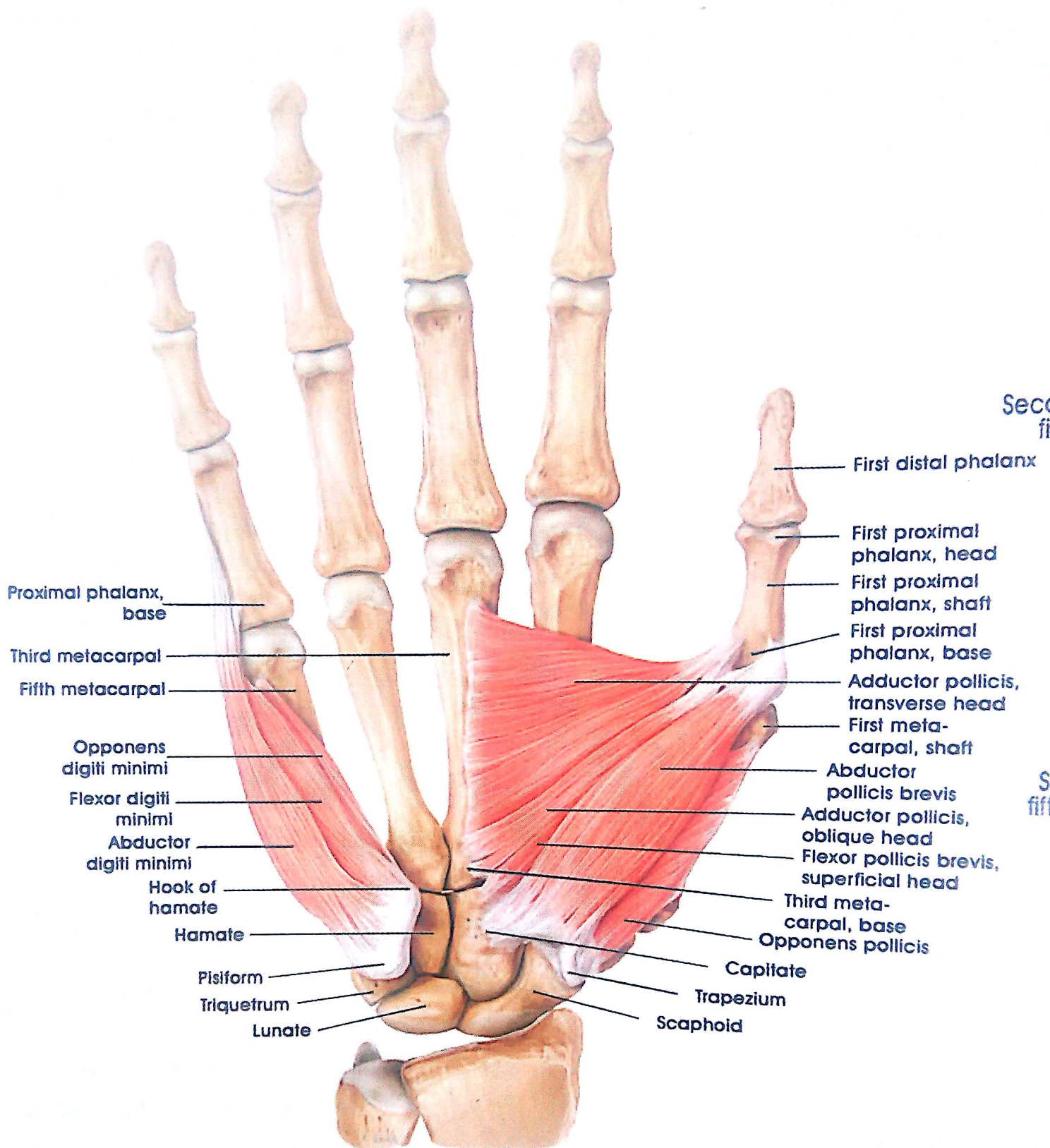


a







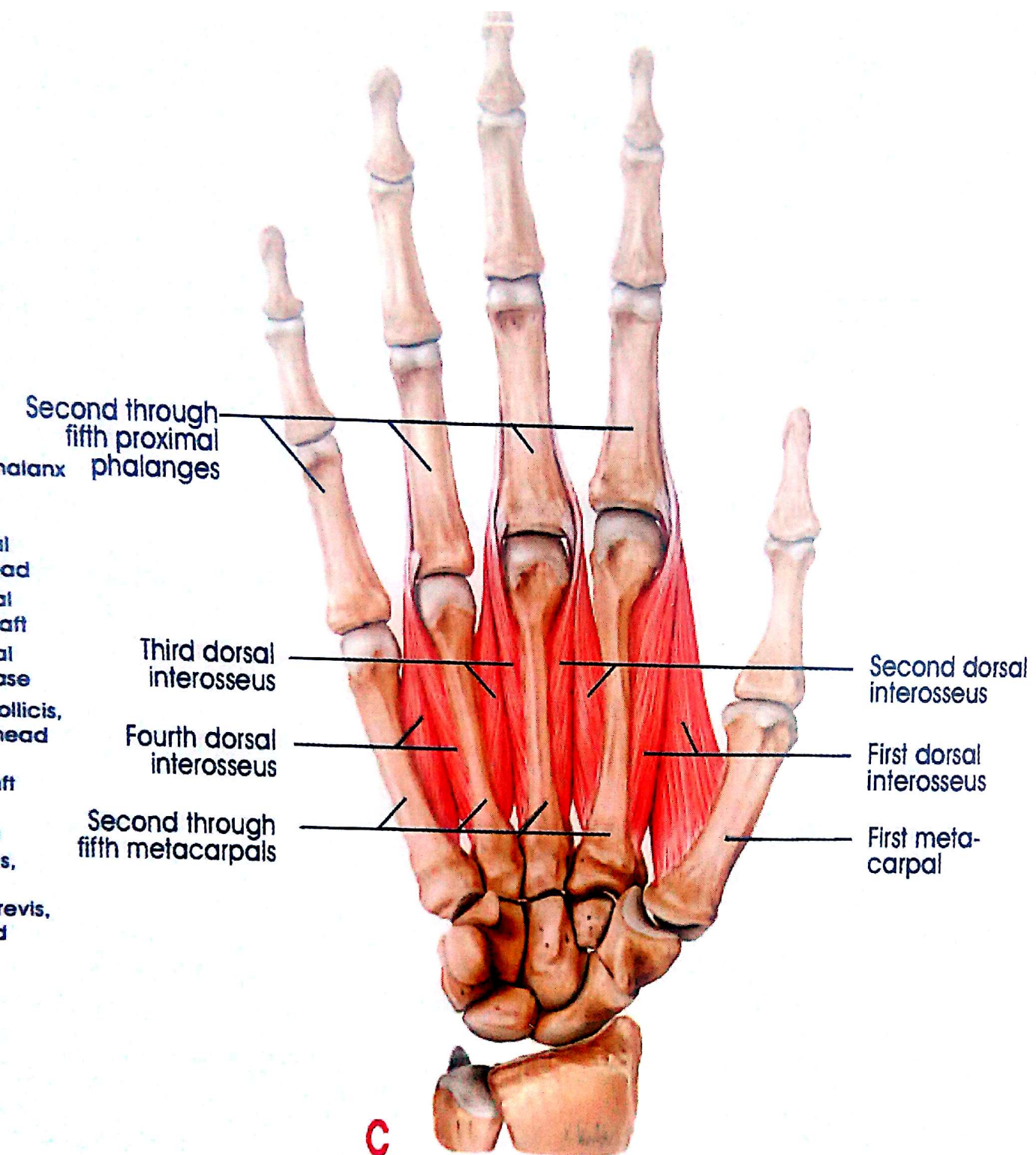


The Thenar Muscles ( abductor pollicis brevis, adductor pollicis, flexor pollicis brevis, and opponens pollicis) and the hypothenar muscles (abductor digiti minimi, flexor digiti minimi, and opponens digiti minimi)

Right Hand, Anterior View

The Intrinsic Muscles of t





**The Muscles of the Hand**  
**Right hand, Anterior View.**

- a** First through fourth lumbricals.
- b** First through third palmar interossei.
- c** First through fourth dorsal interossei.

**es of the Hand**