ANATOMY OF SCAPULA BONE

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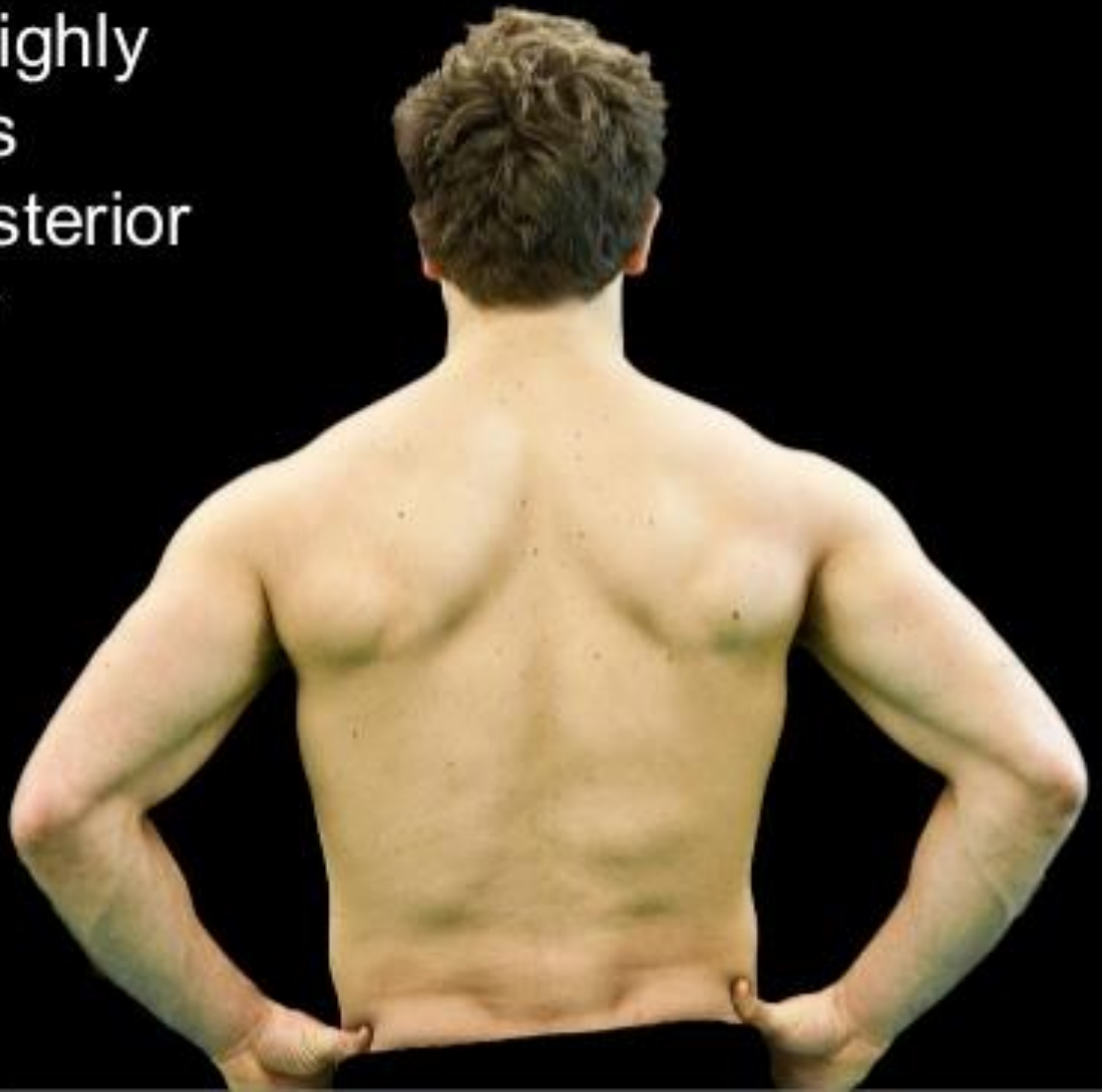
LECTURER KGMC

The Scapula

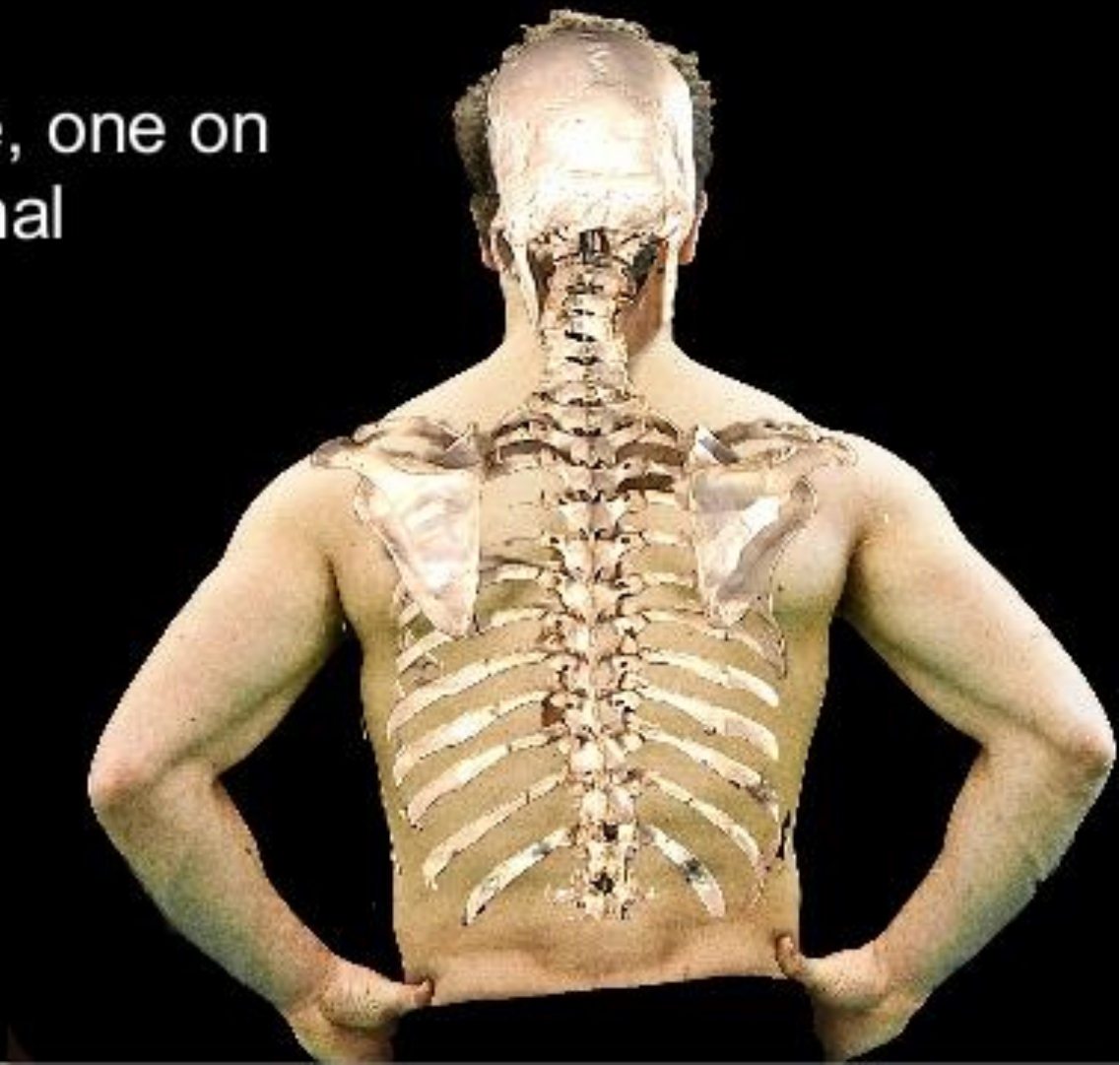
The scapula is a highly mobile bone that is situated on the posterior aspect of the body



The Scapula

The scapula is best viewed from behind

There are 2 scapulae, one on either side of the spinal column



The Scapula

The scapula is best viewed from behind

There are 2 scapulae one on either side of the spinal column

Each overlies the 2nd – 7th ribs

The Scapula

The scapula is a flat triangular-shaped bone

It has a number of interesting projections

Right Side

The Scapula

The scapula is a flat

triangular-shaped bone

It has a number of

interesting projections

best viewed from the lateral aspect

Right Side

The Scapula

The scapula has two surfaces

Anterior / Ventral surface

Posterior / Dorsal Surface

Right Side

The Scapula

The Dorsal surface of the Scapula is divided into two regions by the spine of the Scapula

Right Side

The Scapula

The region below the Scapular Spine is the Infraspinous Fossa

Right Side

The Scapula

The region above the Scapular Spine is the Supraspinous Fossa

Posterior View

Right Side

The Scapula

Supraspinous Fossa is more clearly viewed from above

Superior View

Right Side

The Scapula

The scapula has 3 borders

Medial Border

Anterior View

Right Side

The Scapula

The scapula has 3 borders

Lateral Border

Anterior View

Right Side

The Scapula

The scapula has 3 borders

Superior Border

Anterior View

Posterior View

The Scapula

The scapula has 3 angles

Superior Angle

Anterior View

Posterior View

The Scapula

The scapula has 3 angles

Inferior Angle

Anterior View

Posterior View

The Scapula

The scapula has 3 angles

Lateral

Anterior View

Lateral View

The Scapula

The scapula has 3 lateral projections

Coracoid

Spine

Acromion

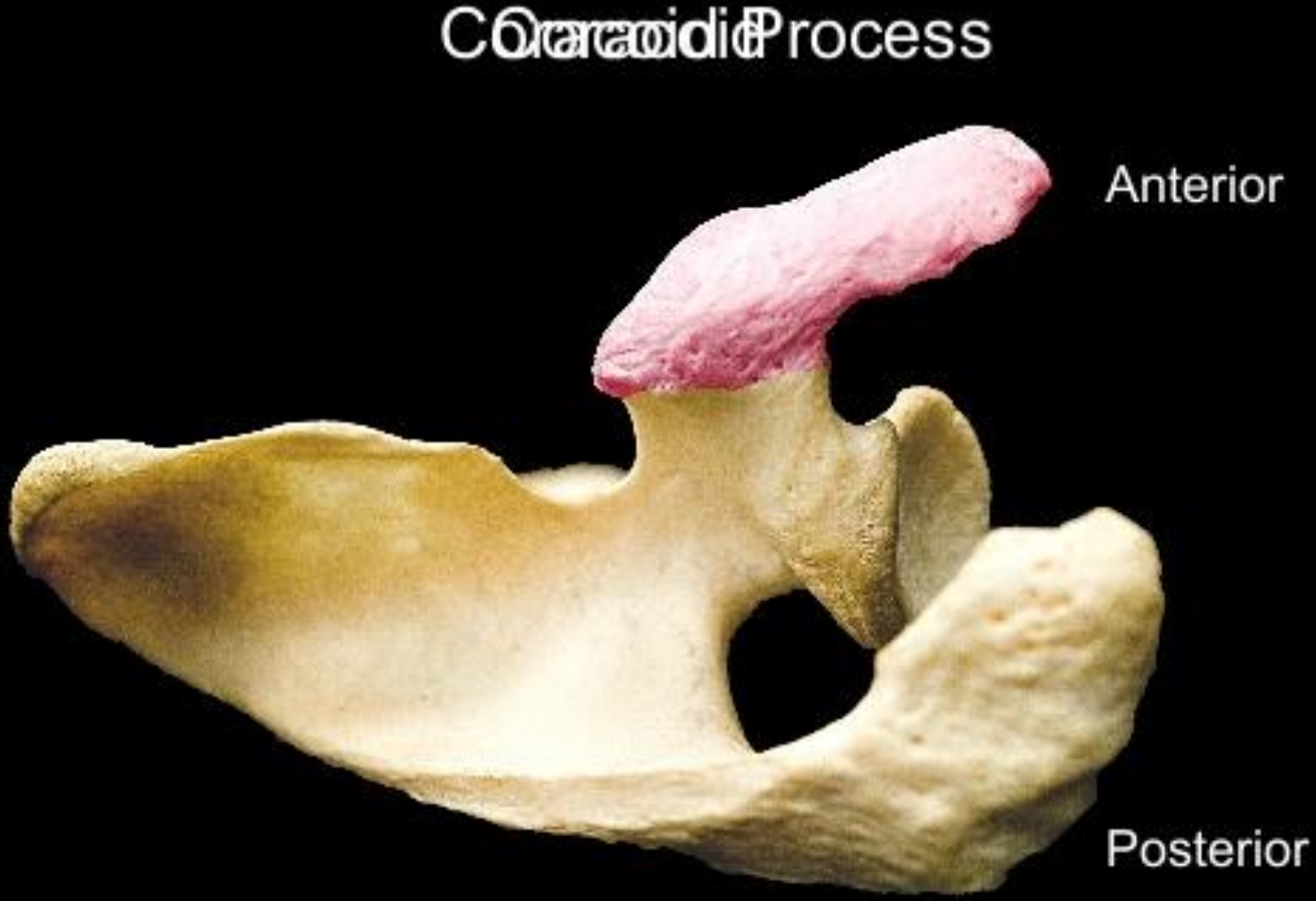
The Scapula

Coracoid Process

Anterior View

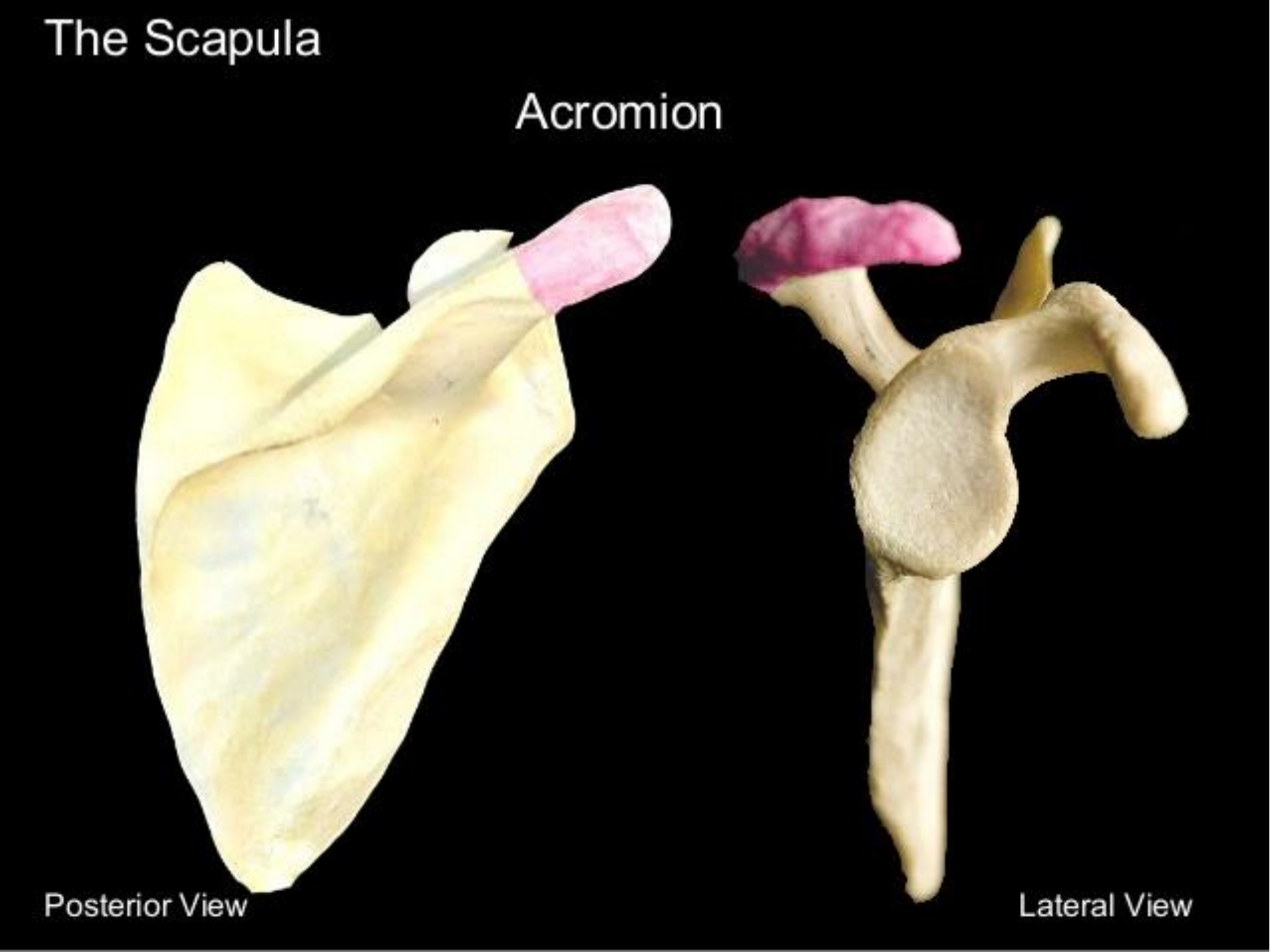
Lateral View

The Scapula

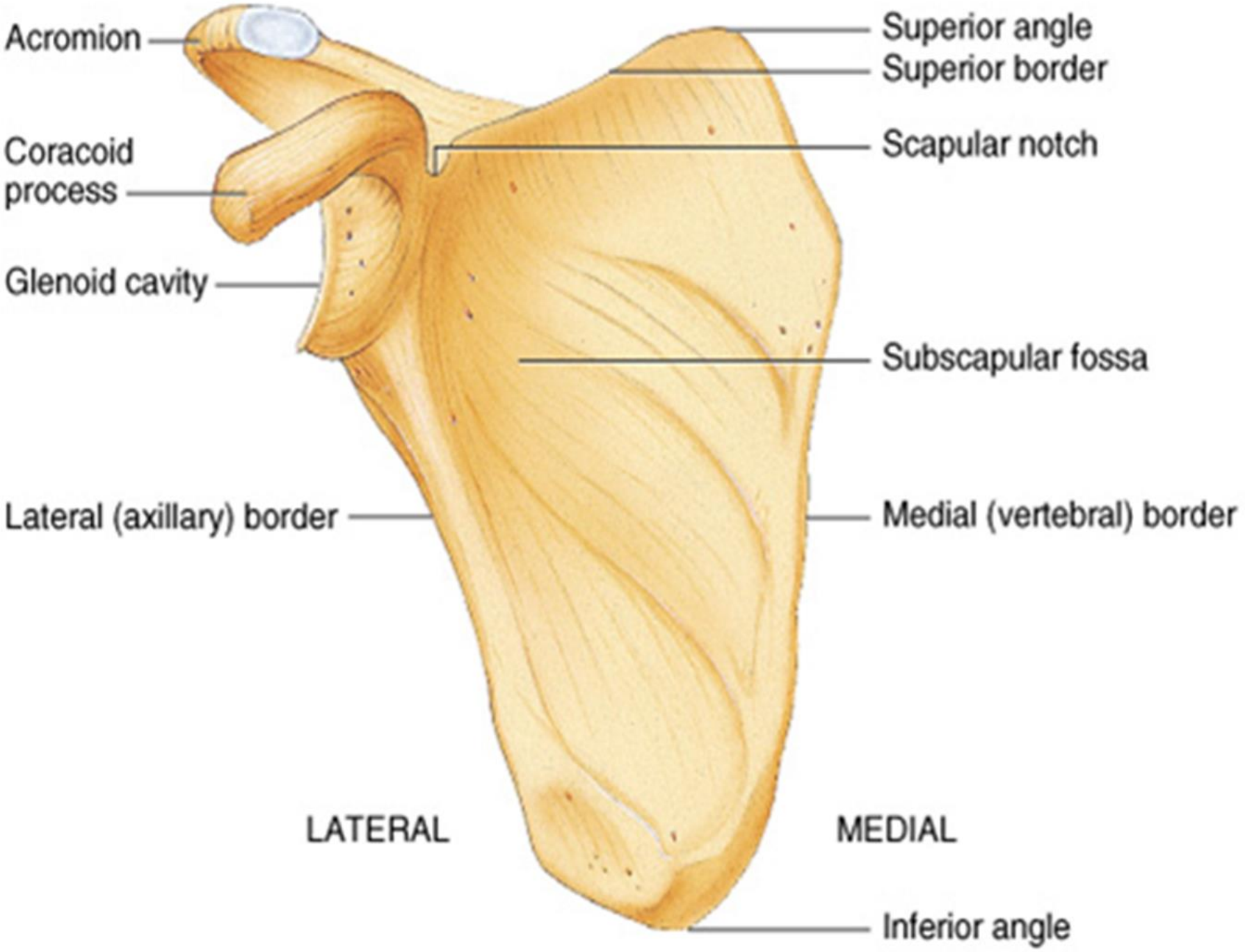


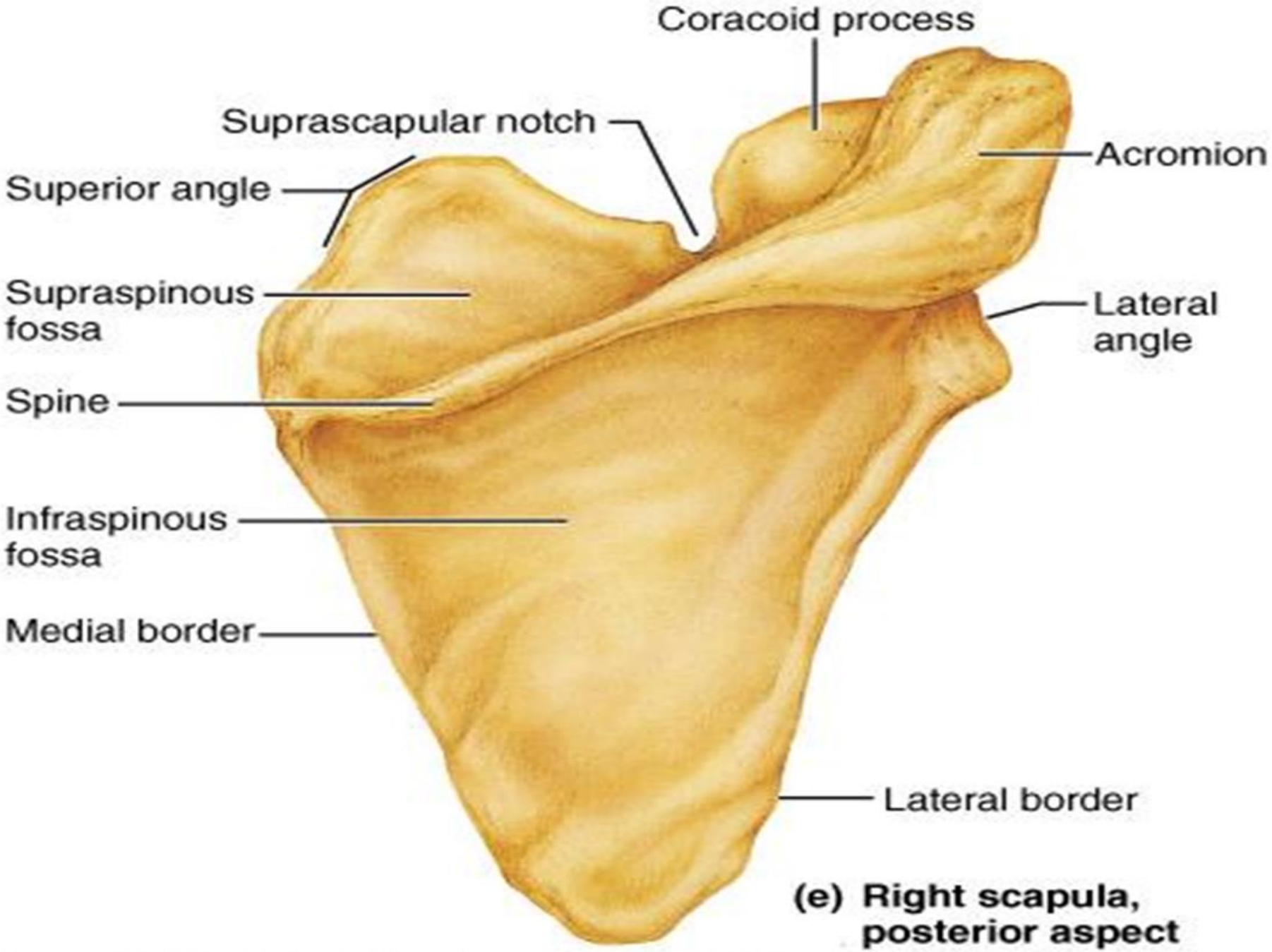
Superior View

The Scapula



The Scapula


Acromion
Coracoid process
Glenoid cavity
Lateral (axillary) border
Superior angle
Superior border
Scapular notch
Subscapular fossa
Medial (vertebral) border
LATERAL
MEDIAL
Inferior angle



(e) Right scapula, posterior aspect

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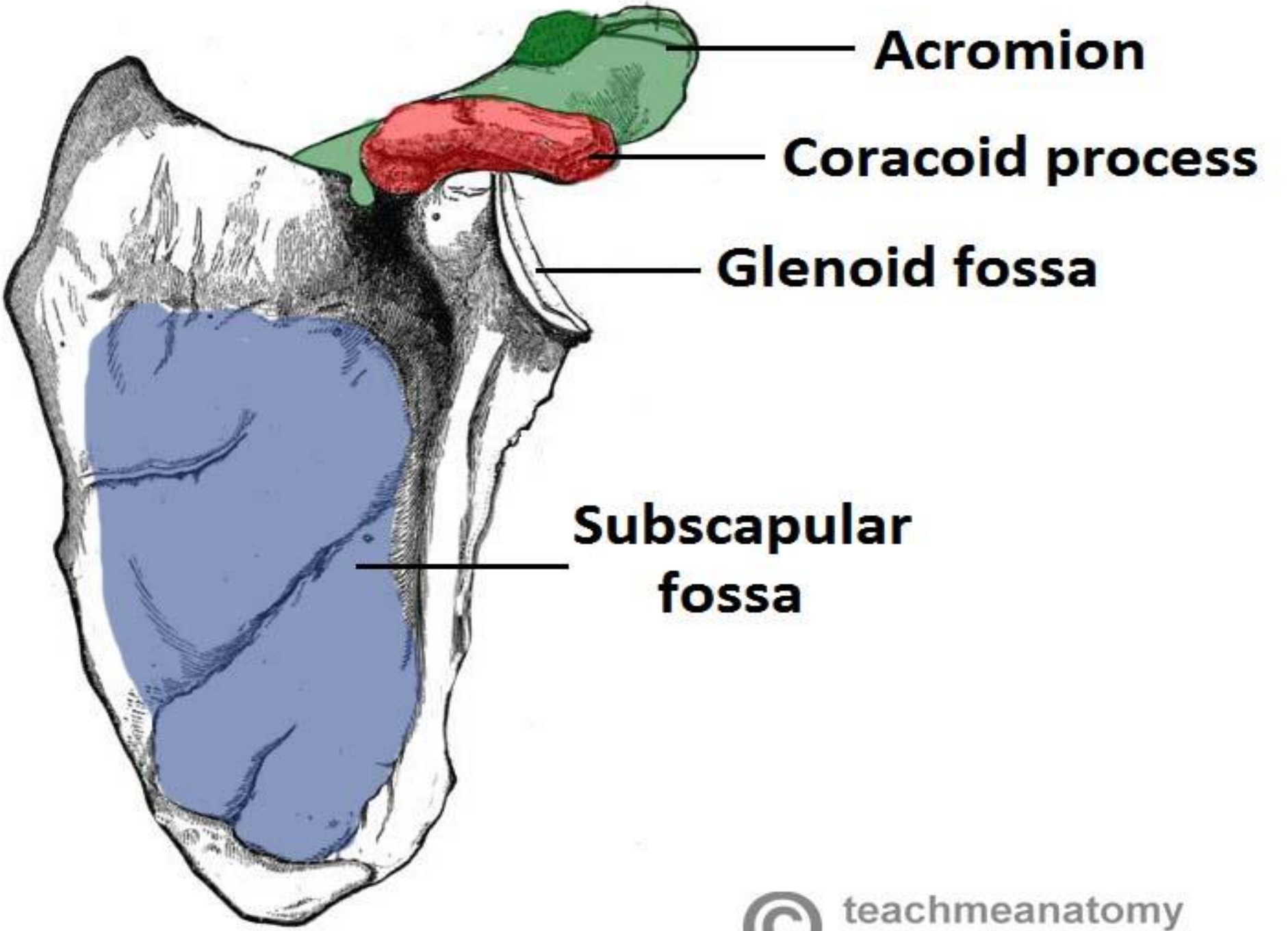

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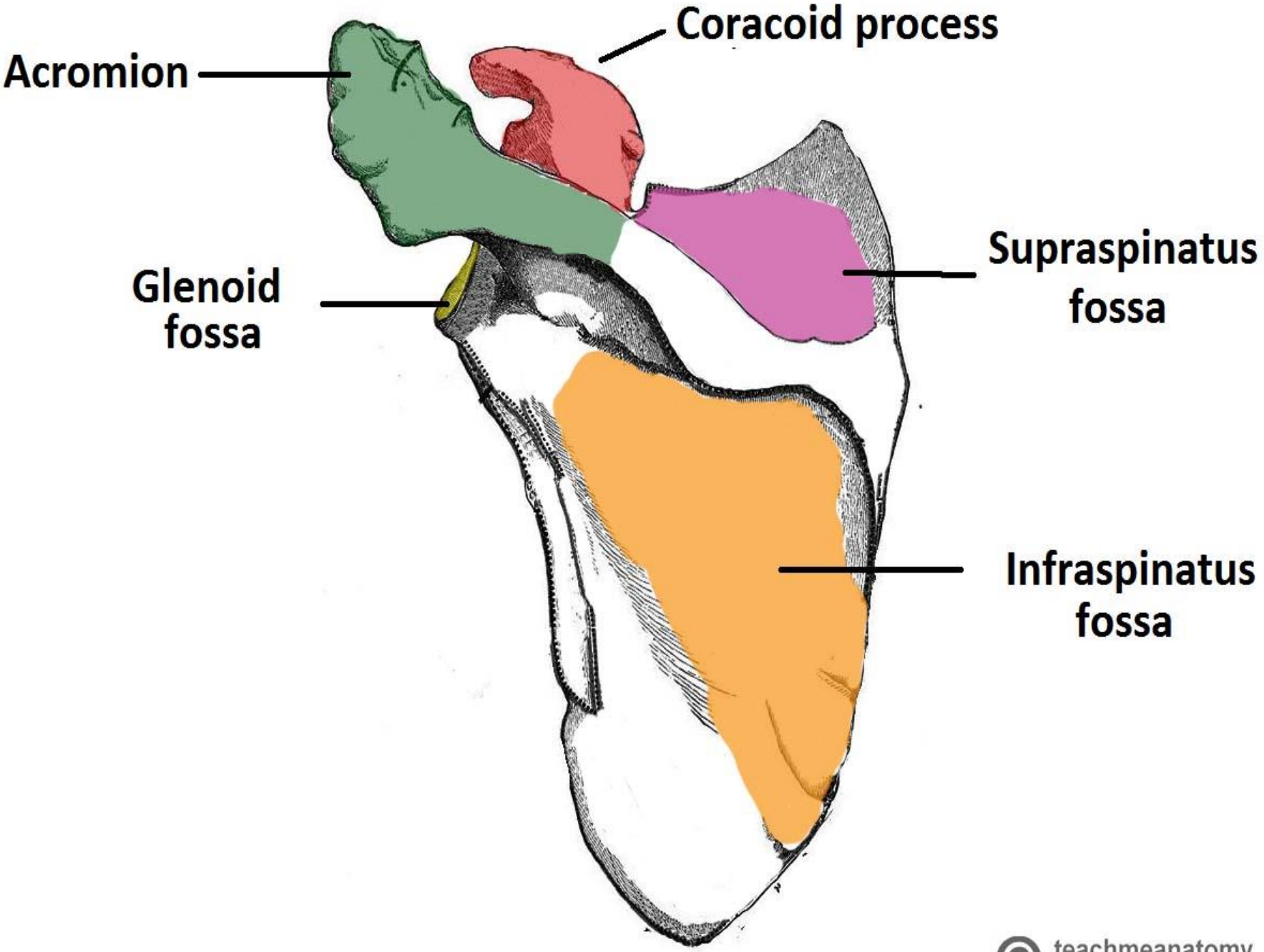

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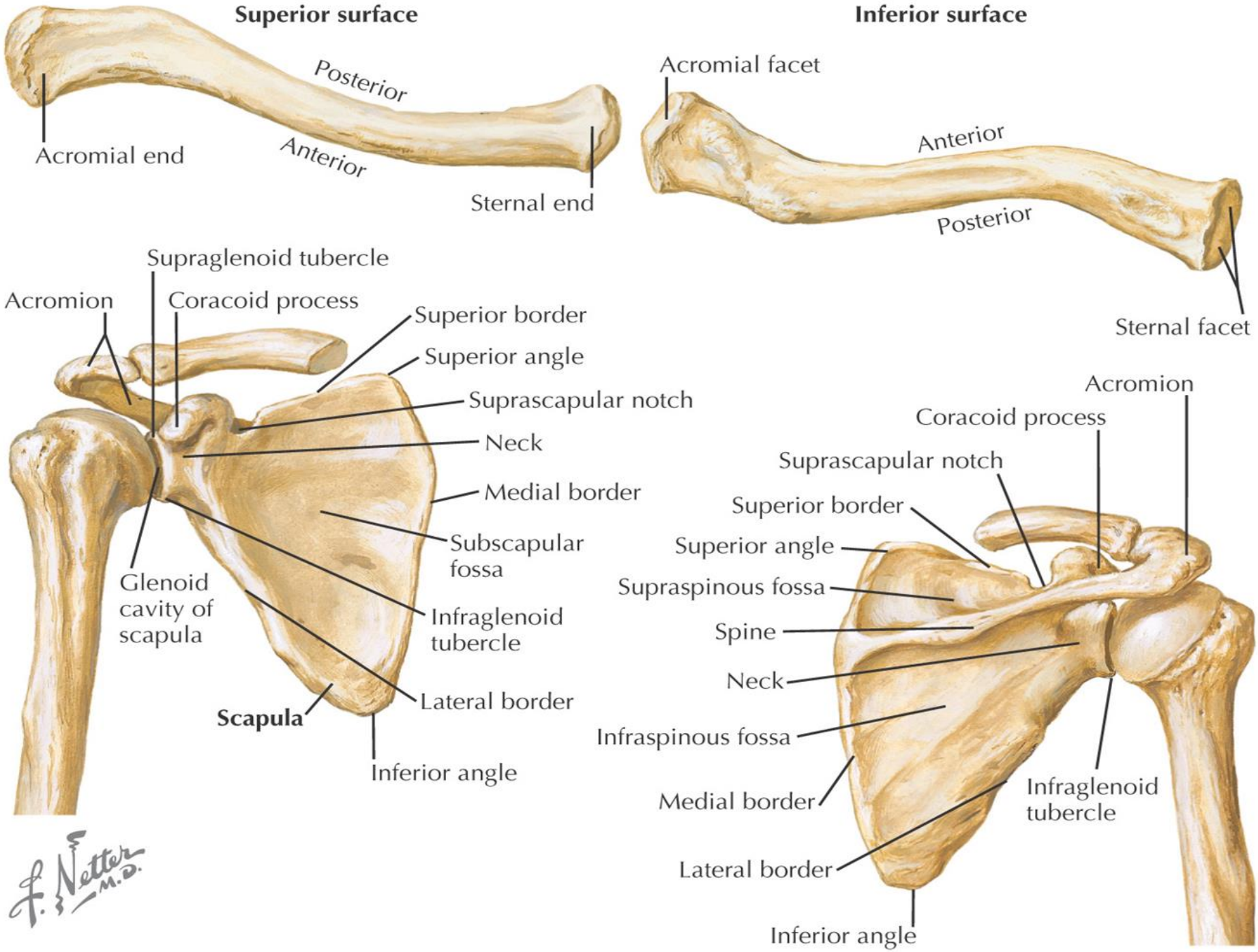

Superior surface
Posterior
Acromial end
Anterior
Sternal end
Inferior surface
Acromial facet
Anterior
Posterior
Sternal facet
Supraglenoid tubercle
Acromion
Coracoid process
Superior border
Superior angle
Suprascapular notch
Neck
Medial border
Subscapular fossa
Glenoid cavity of scapula
Infraglenoid tubercle
Lateral border
Scapula
Inferior angle
Acromion
Coracoid process
Suprascapular notch
Superior border
Superior angle
Supraspinous fossa
Spine
Neck
Infraspinous fossa
Medial border
Infraglenoid tubercle
Lateral border
Inferior angle

The Scapula

A number of muscles attach to the scapula

Four Rotator Cuff Muscles surround the Shoulder Joint and move the Arm

Subscapularis

Supraspinatus

Infraspinatus

Teres Minor

The Scapula

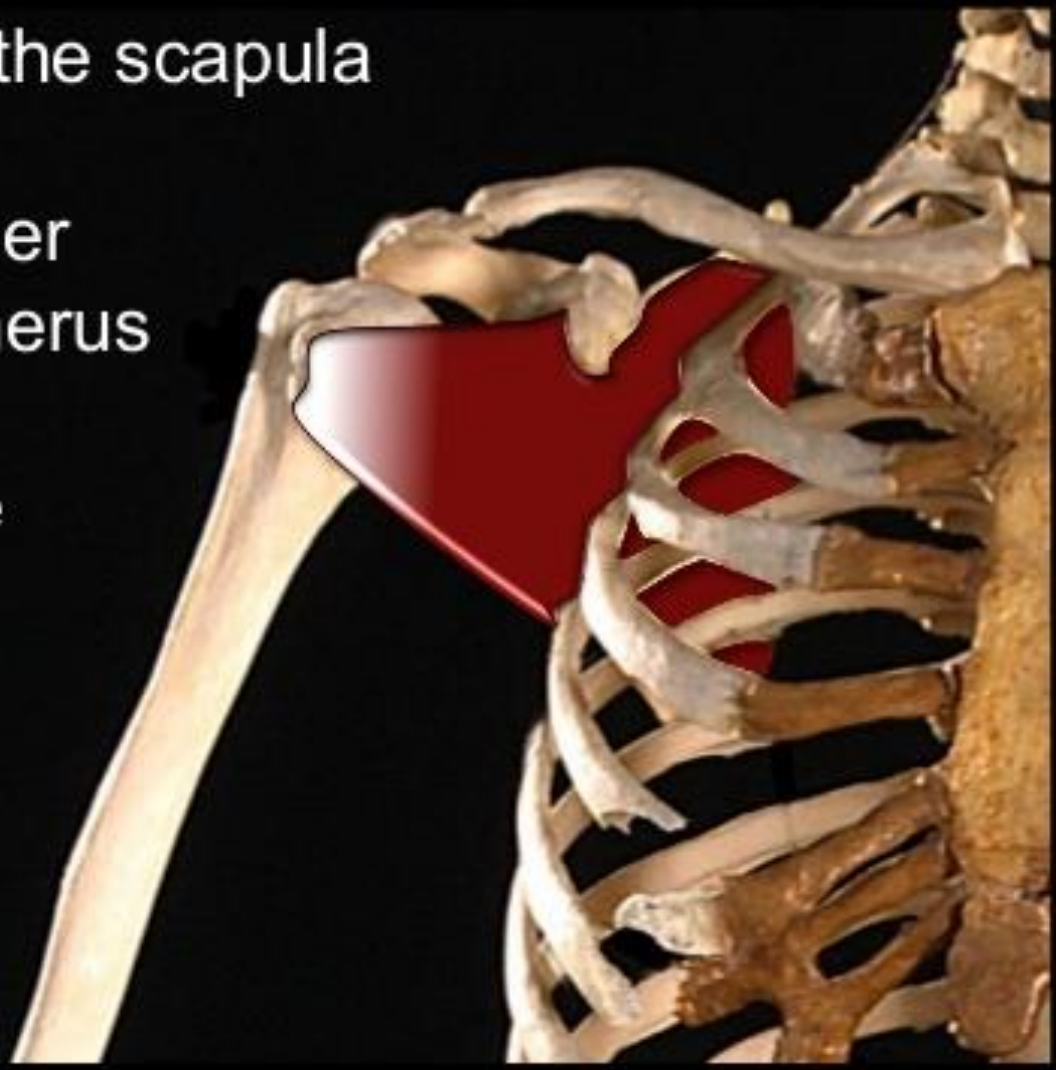
Subscapularis arises from the whole of the ventral surface of the Scapula

The Scapula

Subscapularis arises from the whole of the ventral surface of the scapula

It attaches to the Lesser Tuberosity of the Humerus

It internally rotates the arm



The Scapula

Supraspinatus arises from the Supraspinous Fossa

It attaches to the upper part of the Greater Tuberosity of the Humerus

It abducts the arm

The Scapula

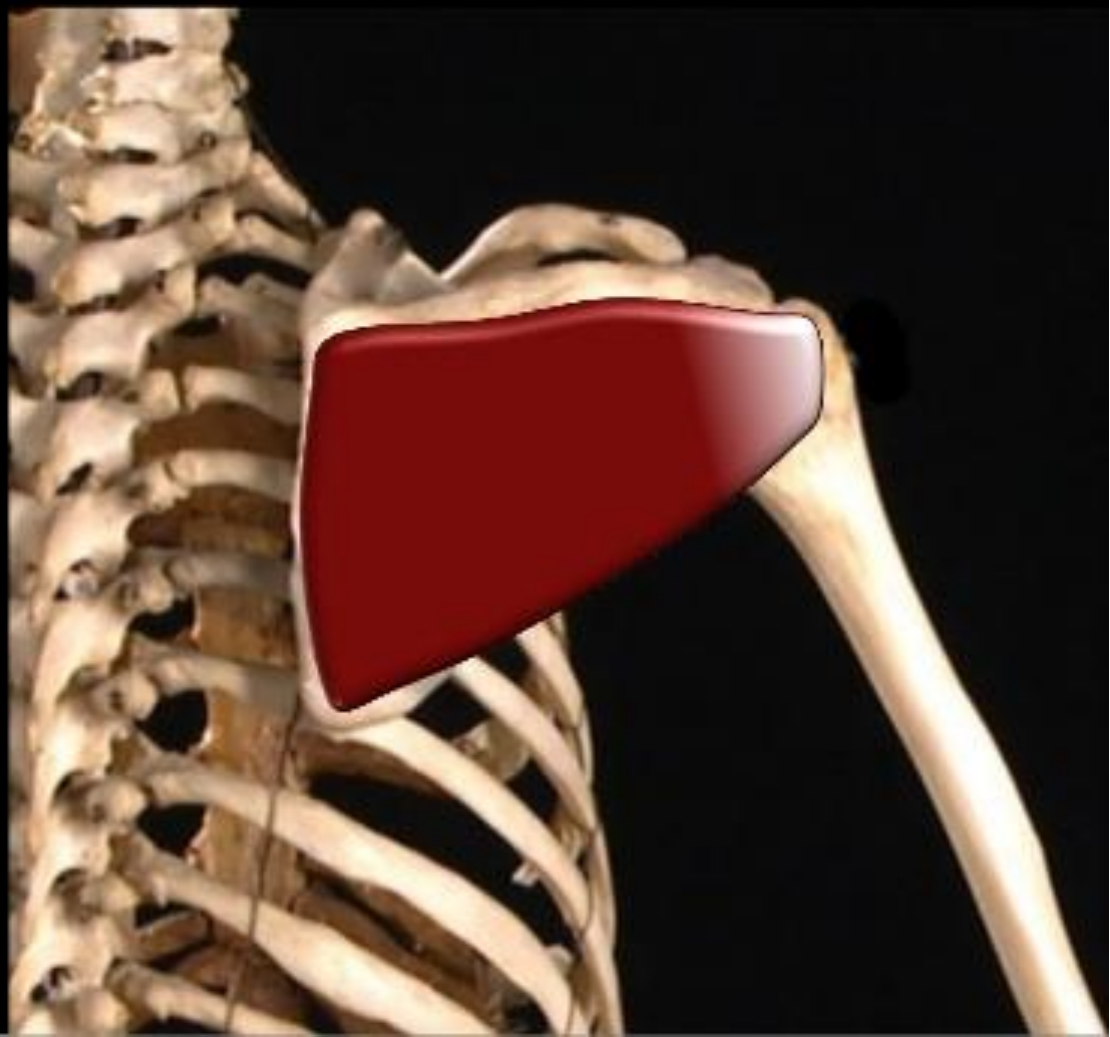
Infraspinatus arises from the Infraspinous Fossa

The Scapula

Infraspinatus arises from the Infraspinous Fossa

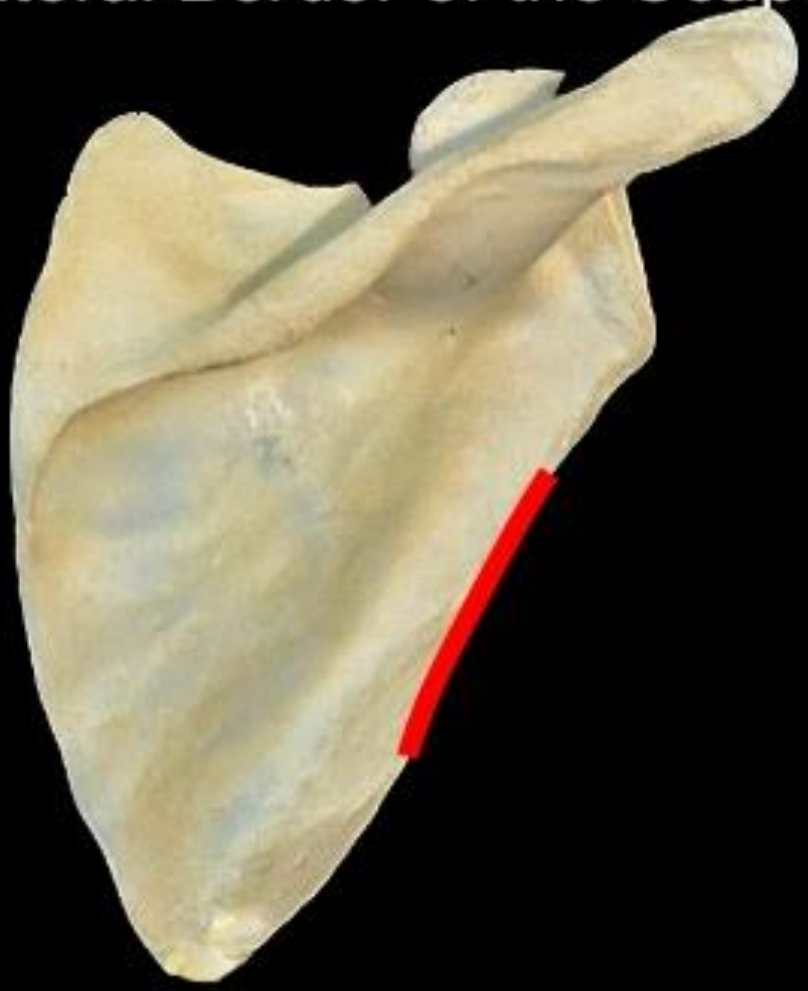
It attaches to the posterior part of the Greater Tuberosity of the Humerus

It externally rotates the arm



The Scapula

Teres Minor arises from the upper part of the Lateral Border of the Scapula



The Scapula

Teres Minor arises from the upper part of the Lateral Border of the Scapula

It attaches to the Inferior part of the Greater Tuberosity of the Proximal Humerus

It externally rotates the arm

Serratus Anterior arises from the whole of the anterior aspect of the medial border

Anterior View

Serratus Anterior arises from the whole of the anterior aspect of the medial border

Anterior View

Long head of Triceps arises from the infraglenoid tubercle

Anterior View

The tip of the coracoid process give rise to the conjoint tendon of the Coracobrachialis

Anterior View

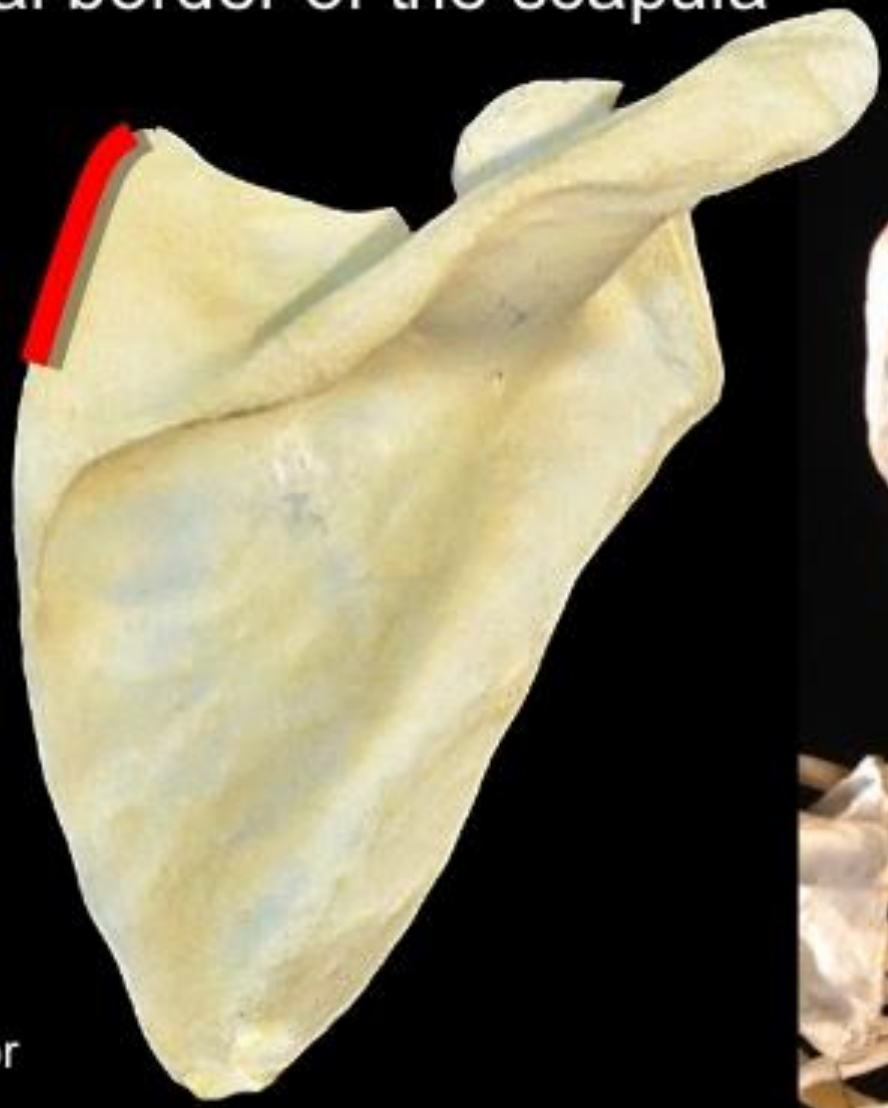
The tip of the coracoid process give rise to the conjoint tendon of the Coracobrachialis and Short Head of Biceps

Anterior View

Pectoralis minor arises from the coracoid process

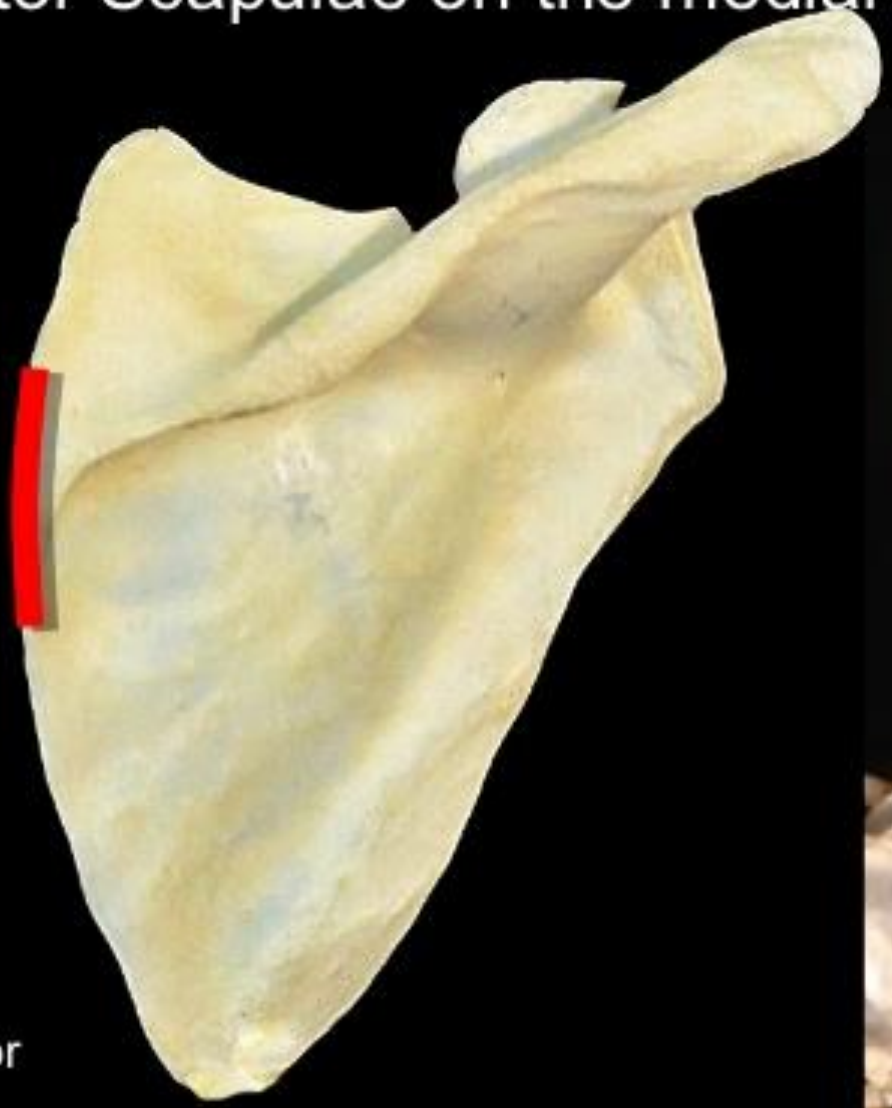
Anterior View

Levator Scapulae attaches to the superior part of the medial border of the scapula



Posterior View

Rhomboid minor attaches just below
Levator Scapulae on the medial border



Posterior
View

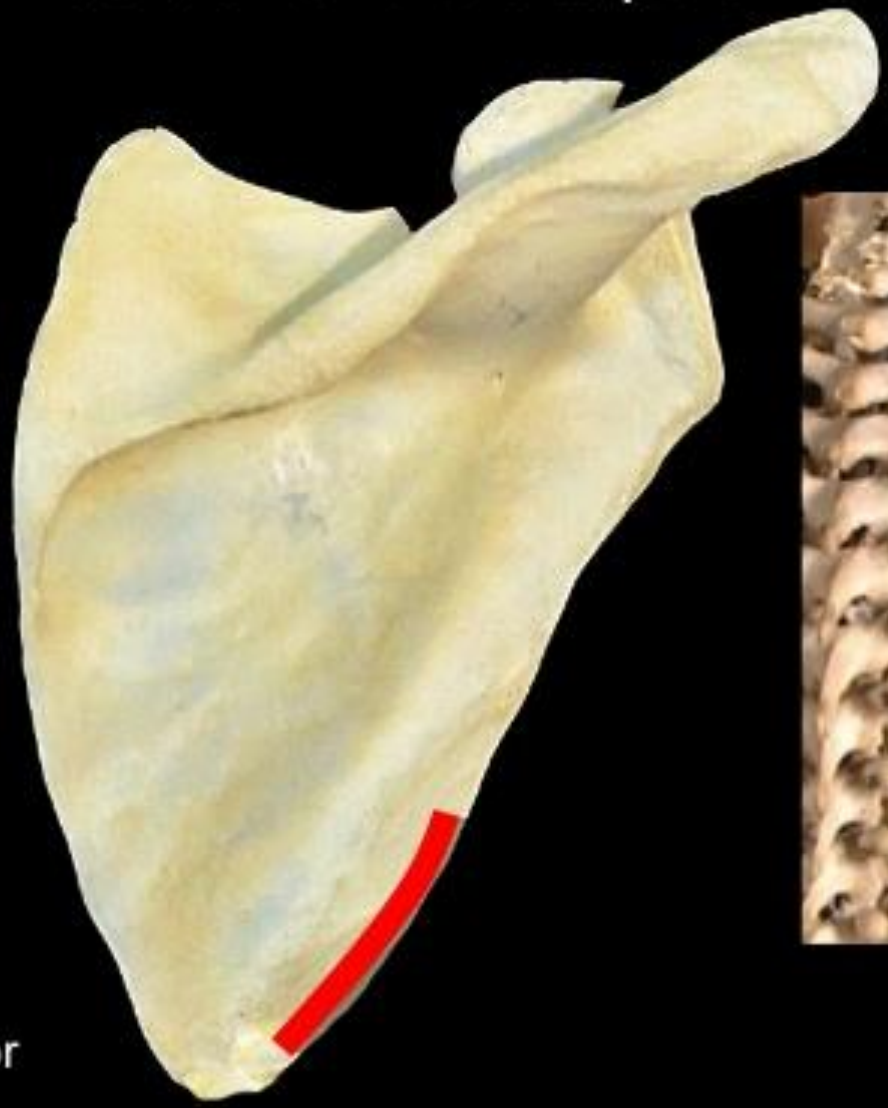
Rhomboid Major attaches just below Rhomboid Minor on the medial border of the scapula

Posterior View

Latissimus Dorsi has a few fibres that arise from the inferior angle of the scapula

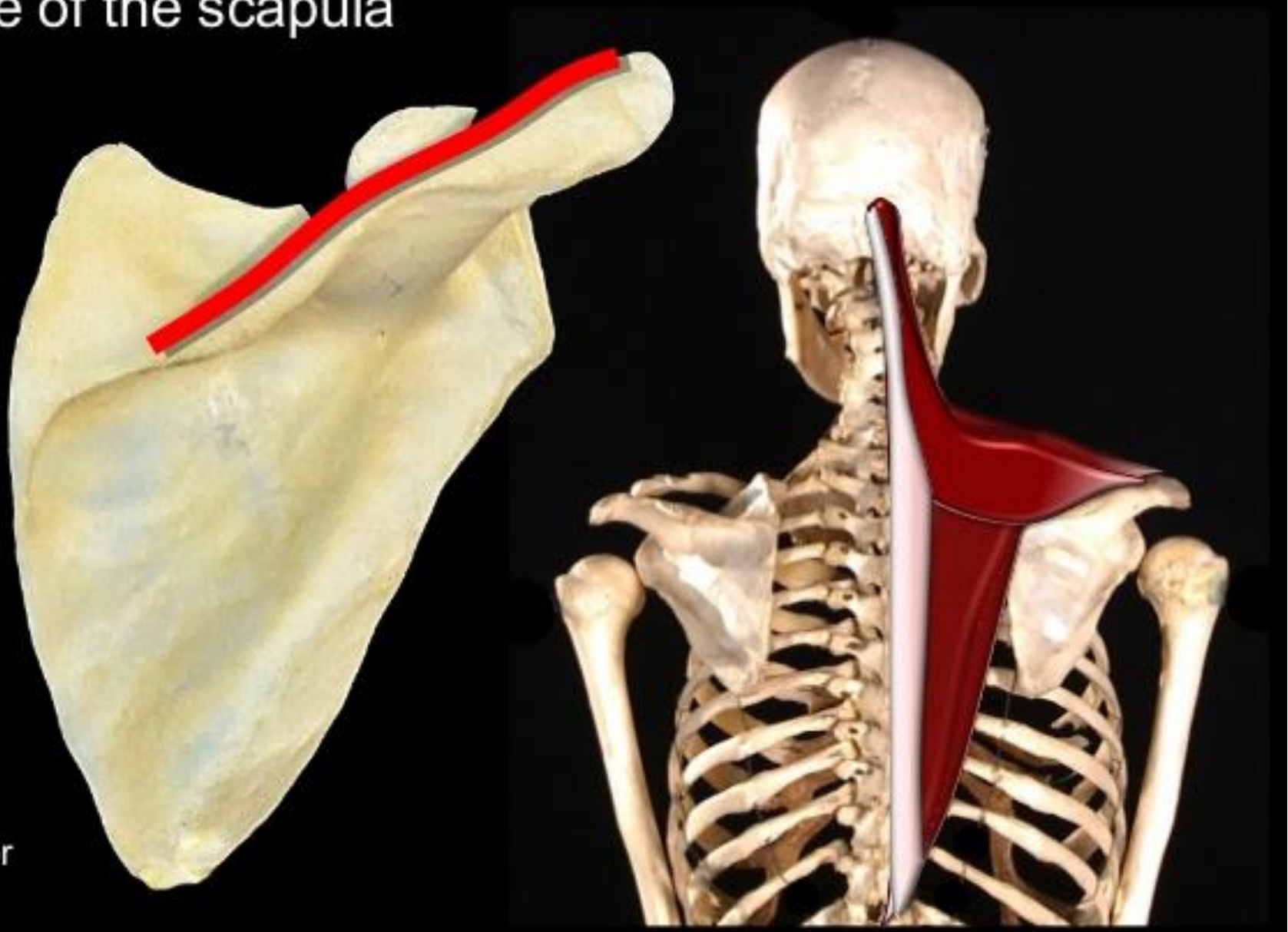
Posterior View

Teres Major arises from the inferior aspect of the lateral border of the scapula



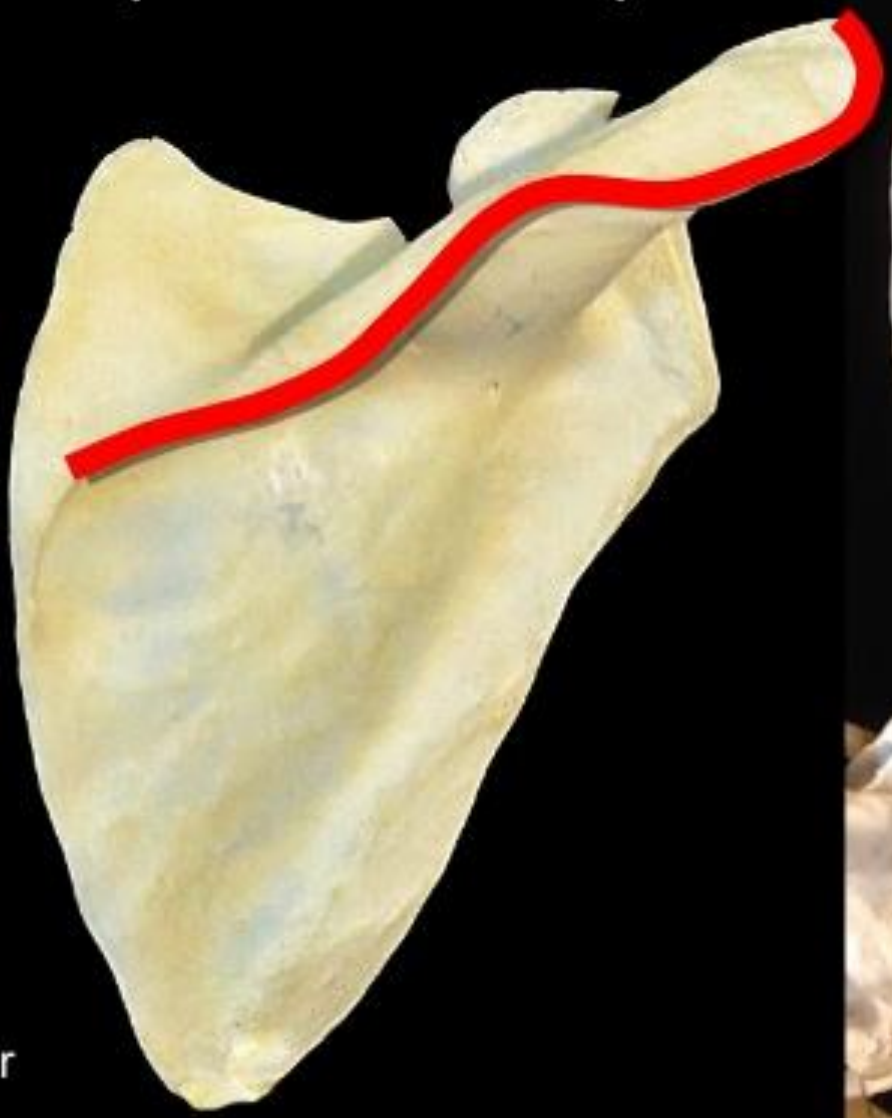
Posterior View

Trapezius arises from the superior aspect of the spine of the scapula



Posterior View

The posterior fibres of Deltoid arise from the inferior aspect spine of the scapula



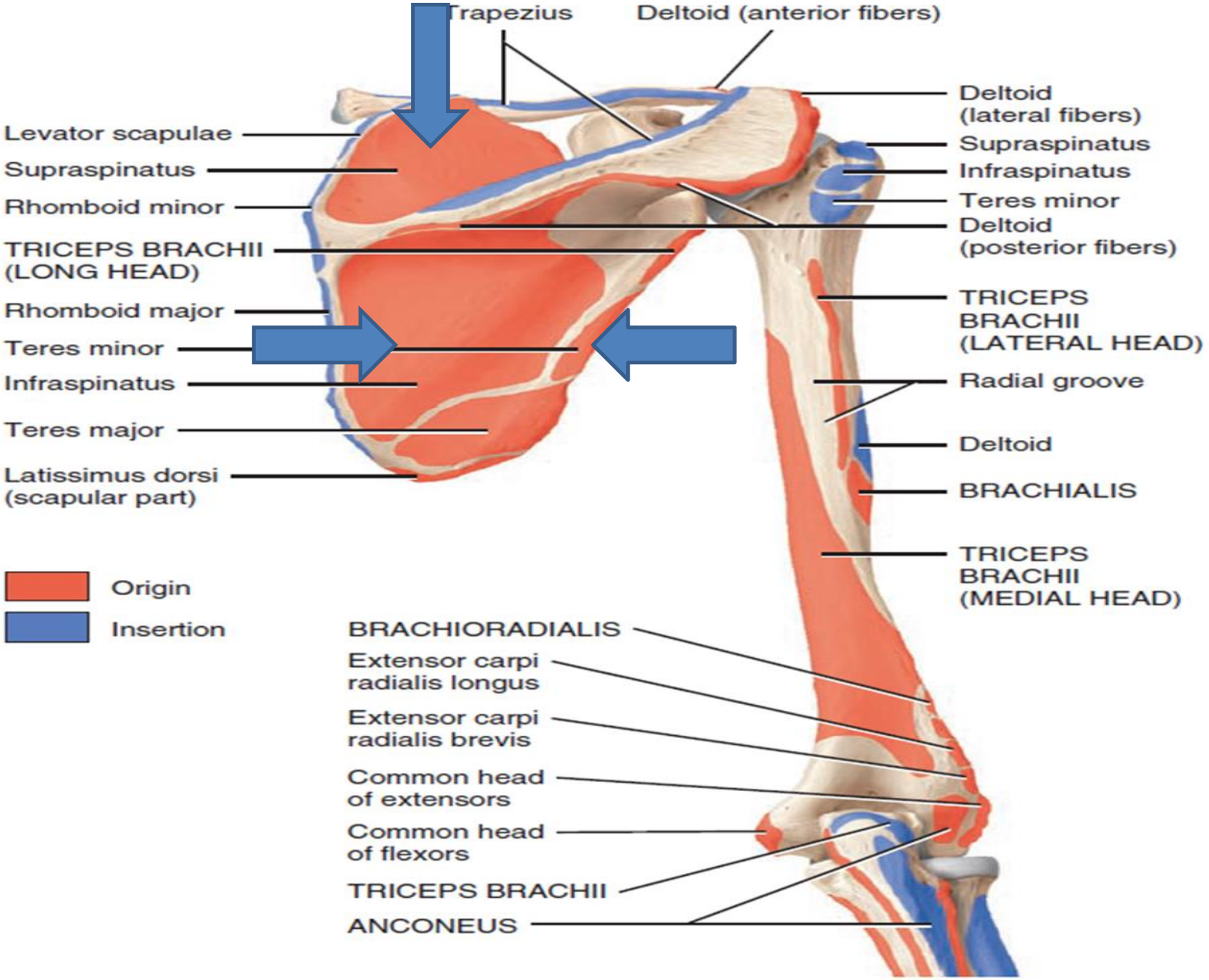
Posterior View

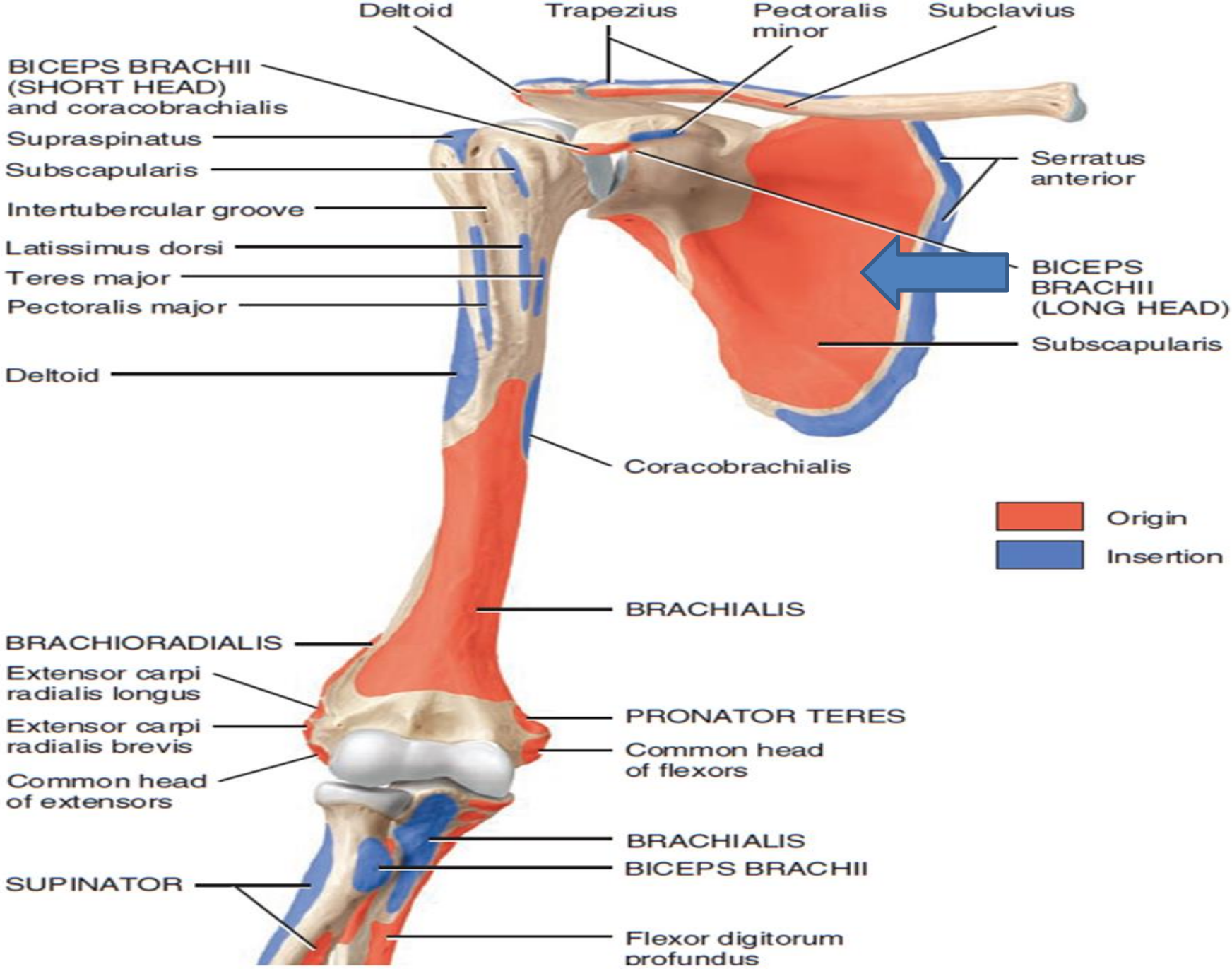
Summary of muscles that arise from the scapula

- Biceps (both heads)
- Coracobrachialis
- Deltoid
- Infraspinatus
- Levator Scapulae
- Latissimus Dorsi
- Pectoralis Minor
- Rhomboid Major
- Rhomboid Minor
- Serratus Anterior
- Subscapularis
- Supraspinatus
- Triceps (Long Head)
- Teres Major
- Teres Minor
- Trapezius

ROTATOR CUFF MUSCLES

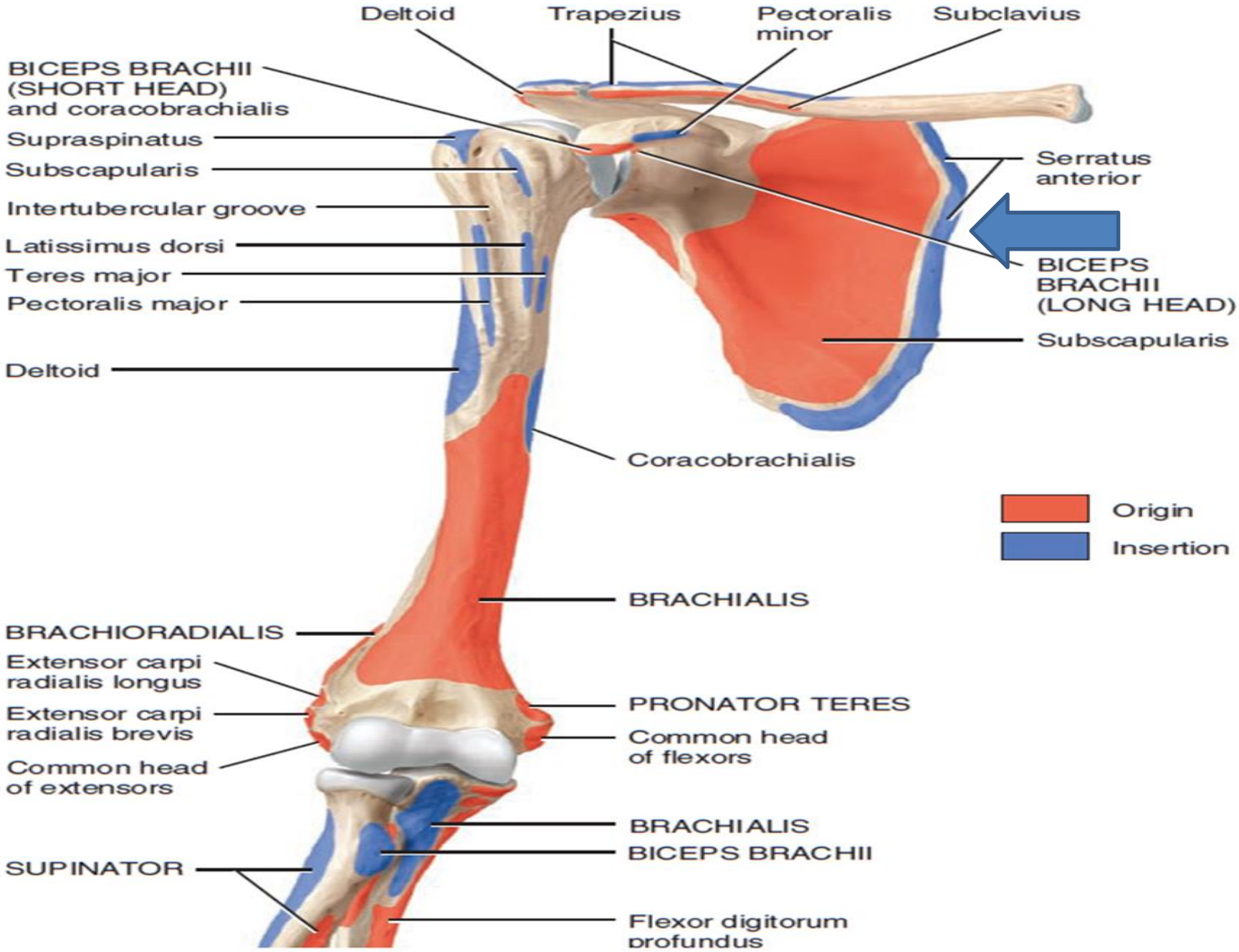
- SUPRASPINATUS…..supraspinous fossa
- INFRASPINATUS…..infraspinous fossa
- SUBSCAPULARIS…..whole of vental surface
- TERES MINOR…Lateral border of scapula


Trapezius
Deltoid (anterior fibers)
Levator scapulae
Supraspinatus
Rhomboid minor
TRICEPS BRACHII (LONG HEAD)
Rhomboid major
Teres minor
Infraspinatus
Teres major
Latissimus dorsi (scapular part)
Deltoid (lateral fibers)
Supraspinatus
Infraspinatus
Teres minor
Deltoid (posterior fibers)
TRICEPS BRACHII (LATERAL HEAD)
Radial groove
Deltoid
BRACHIALIS
TRICEPS BRACHII (MEDIAL HEAD)
Origin
Insertion
BRACHIORADIALIS
Extensor carpi radialis longus
Extensor carpi radialis brevis
Common head of extensors
Common head of flexors
TRICEPS BRACHII
ANCONEUS

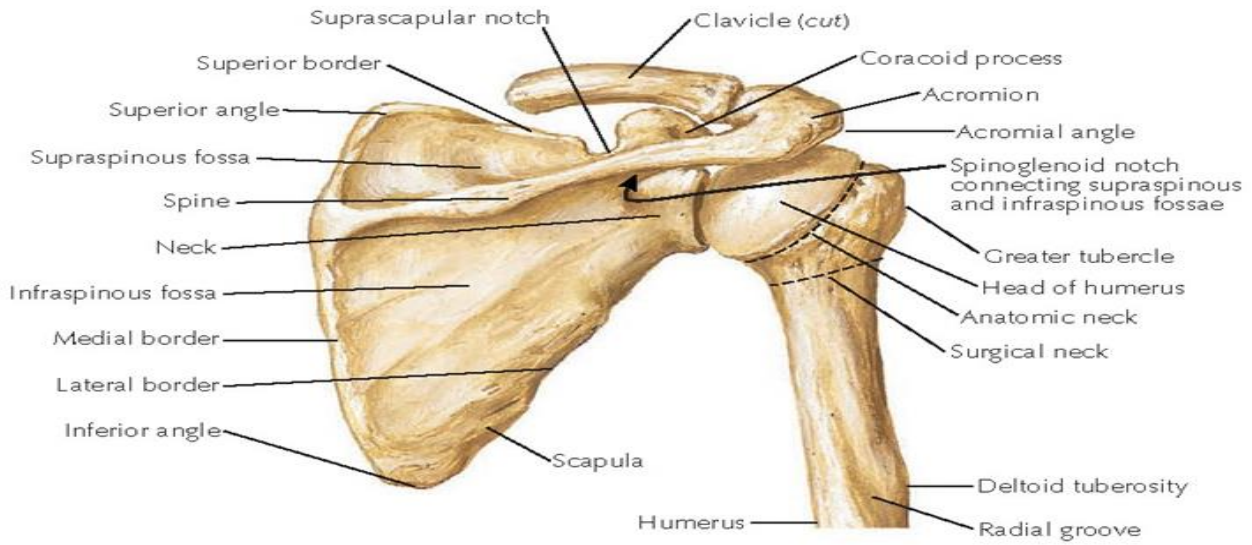

Deltoid
Trapezius
Pectoralis minor
Subclavius
BICEPS BRACHII (SHORT HEAD) and coracobrachialis
Supraspinatus
Subscapularis
Intertubercular groove
Latissimus dorsi
Teres major
Pectoralis major
Deltoid
Serratus anterior
BICEPS BRACHII (LONG HEAD)
Subscapularis
Coracobrachialis
Origin
Insertion
BRACHIALIS
BRACHIORADIALIS
Extensor carpi radialis longus
Extensor carpi radialis brevis
Common head of extensors
PRONATOR TERES
Common head of flexors
BRACHIALIS
BICEPS BRACHII
SUPINATOR
Flexor digitorum profundus

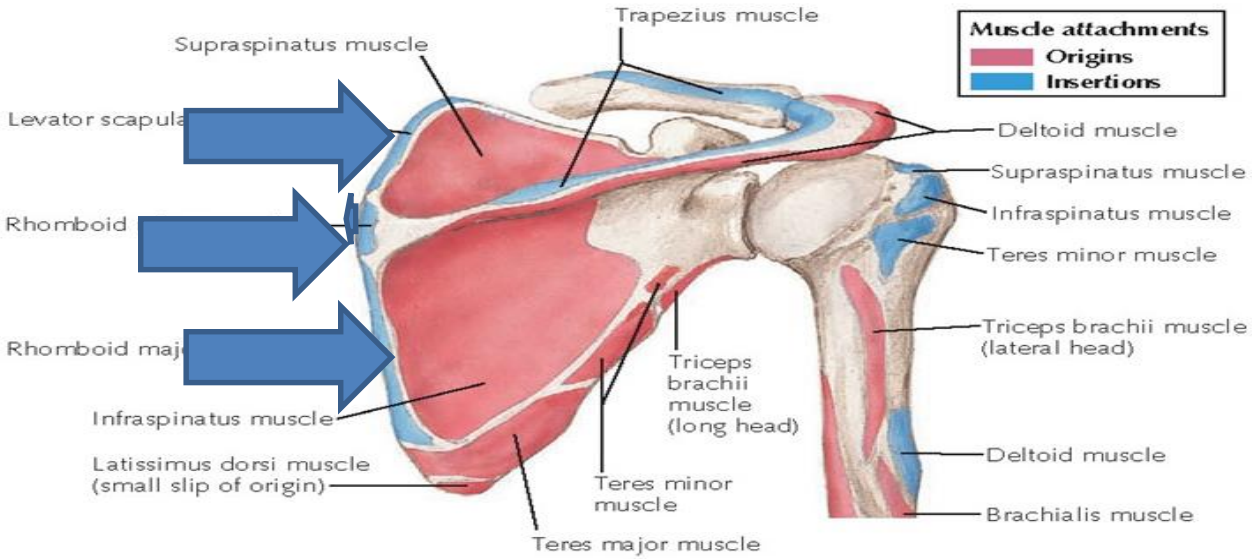
OTHER MUSCLES

- MEDIAL BORDER….
- SERRATUS ANTERIOR…whole of anterior surface
- LEVATOR SCAPULAE…. superior aspect
- RHOMBOID MINOR
- RHOMBOID MAJOR


Deltoid
Trapezius
Pectoralis minor
Subclavius
BICEPS BRACHII (SHORT HEAD) and coracobrachialis
Supraspinatus
Subscapularis
Intertubercular groove
Latissimus dorsi
Teres major
Pectoralis major
Deltoid
Serratus anterior
BICEPS BRACHII (LONG HEAD)
Subscapularis
Coracobrachialis
Origin
Insertion
BRACHIALIS
BRACHIORADIALIS
Extensor carpi radialis longus
Extensor carpi radialis brevis
Common head of extensors
PRONATOR TERES
Common head of flexors
BRACHIALIS
BICEPS BRACHII
SUPINATOR
Flexor digitorum profundus

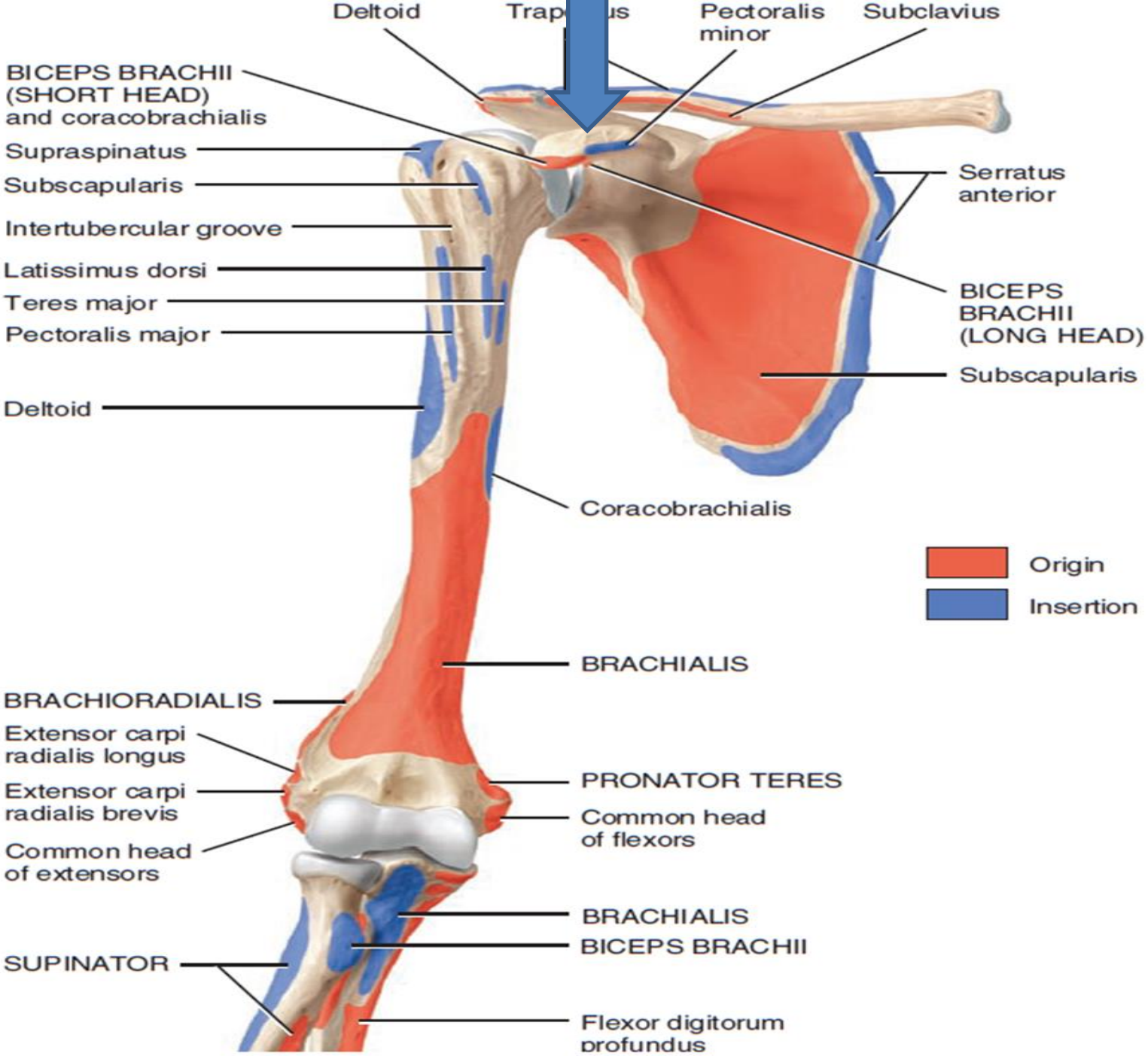
Scapula and Humerus: Posterior View





CORACOID PROCESS

- CHORACO BRACHIALIS
- SHORT HEAD OF BICEPS
- PECTORALIS MINOR


Deltoid
Trap
Pectoralis minor
Subclavius
BICEPS BRACHII (SHORT HEAD) and coracobrachialis
Supraspinatus
Subscapularis
Intertubercular groove
Latissimus dorsi
Teres major
Pectoralis major
Deltoid
Serratus anterior
BICEPS BRACHII (LONG HEAD)
Subscapularis
Coracobrachialis
Origin
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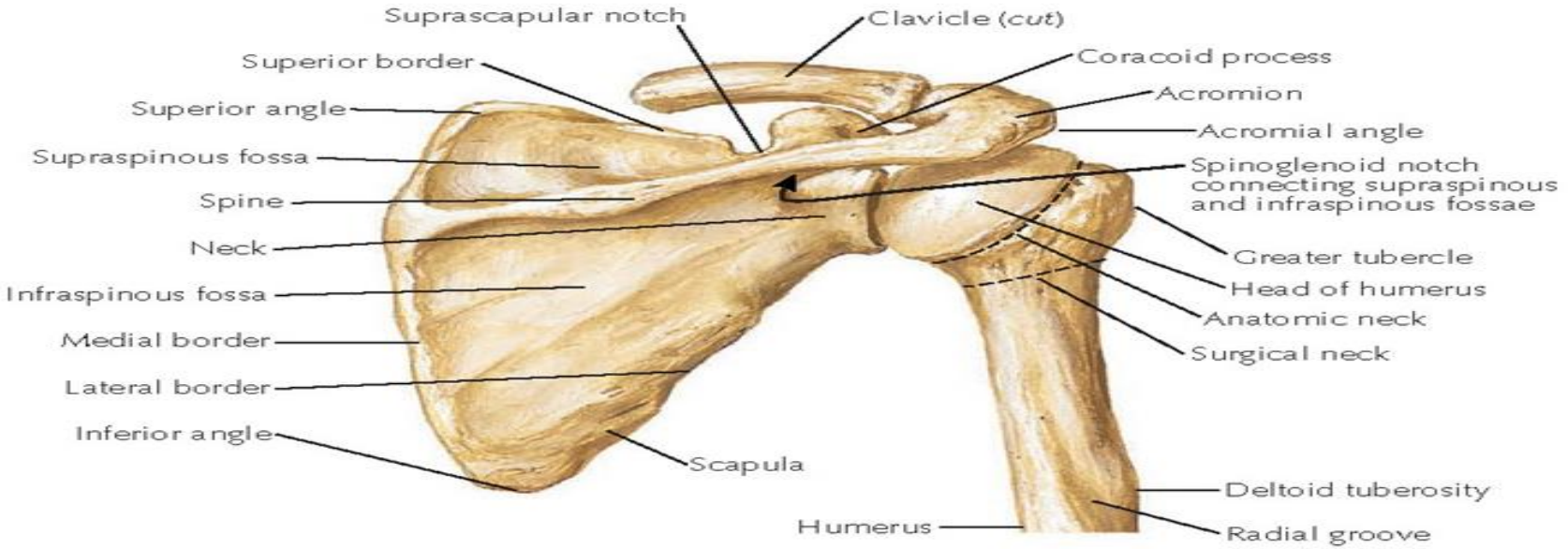
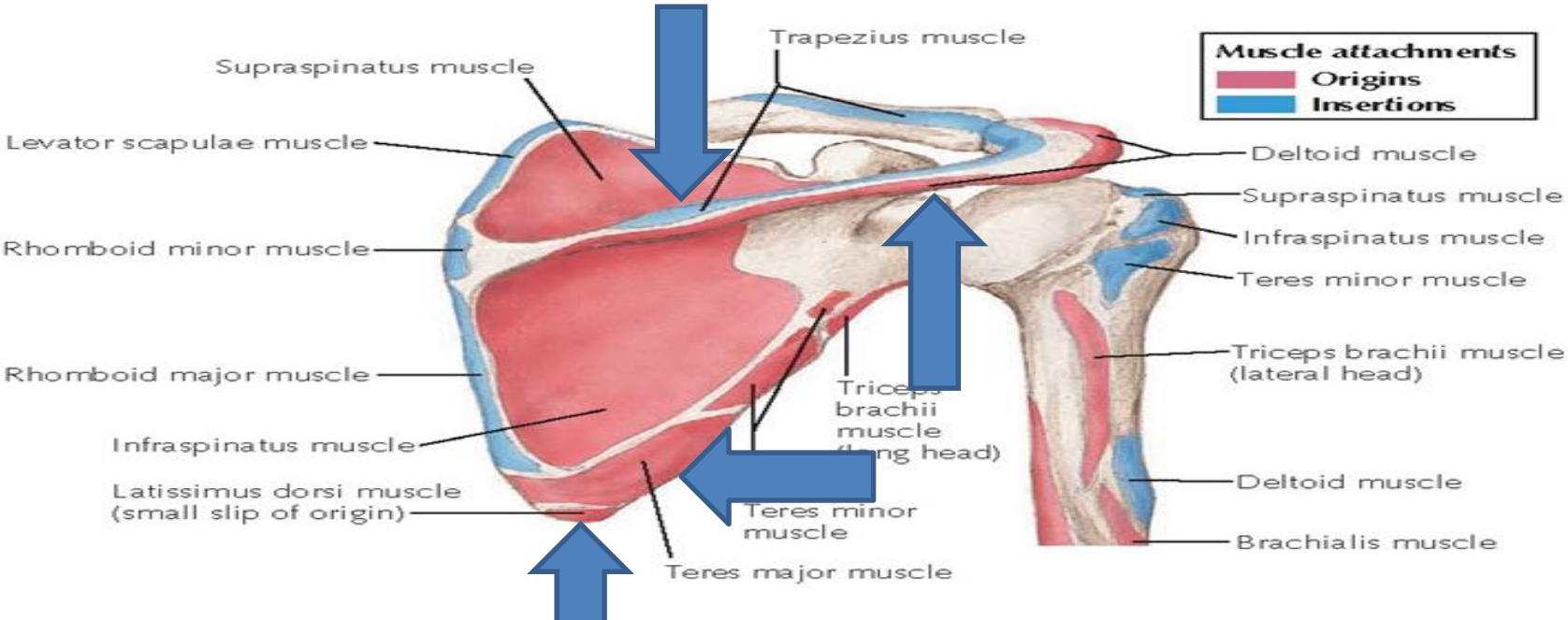
BRACHIALIS
BRACHIORADIALIS
Extensor carpi radialis longus
Extensor carpi radialis brevis
Common head of extensors
PRONATOR TERES
Common head of flexors
BRACHIALIS
BICEPS BRACHII
SUPINATOR
Flexor digitorum profundus

OTHER MUSCLES

- LATISSMUS DORSI….INFERIOR ANGLE
- TERES MAJOR …LATERAL BORDER
- TRAPIZIUS…SUPERIOR ASPECT OF SINE
- DELTOID….INFERIOR ASPECT OF SPINE

Scapula and Humerus: Posterior View





CLINICAL ANATOMY

- Scapular winging symptoms vary from person to person depending on the underlying cause as well as the muscles and nerves involved. Most people with scapular winging have a shoulder blade that sticks out. This can make sitting in a chair or wearing a backpack uncomfortable.

- If the winged scapula is the result of nerve damage, it can cause weakness in the muscles of your neck, shoulders, and arms. That weakness can make lifting, pulling, and pushing heavy objects hard.

- Scapular winging often affects your ability to raise your arm above your shoulder. It may also be associated with other symptoms, including:

- pain or discomfort in your neck, shoulders, and back

- Scapular winging is almost always caused by damage to one of three nerves that control muscles in your arms, back, and neck:

- the long thoracic nerve, which controls the serratus anterior muscle
- the dorsal scapular nerve, which controls the rhomboid muscles
- the spinal accessory nerve, which controls the trapezius muscle
- Injuries and surgeries can both cause damage to these nerves and muscles.