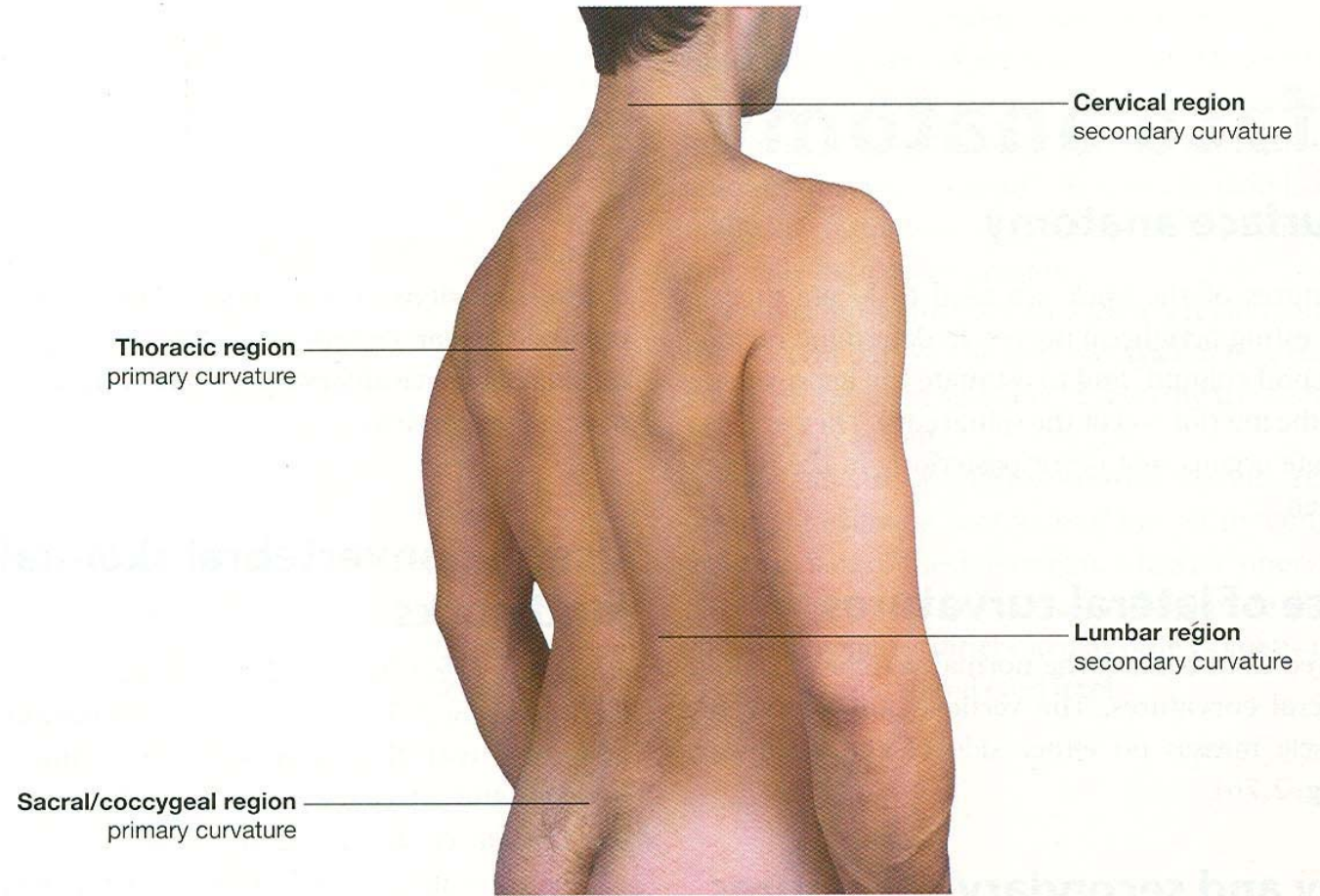


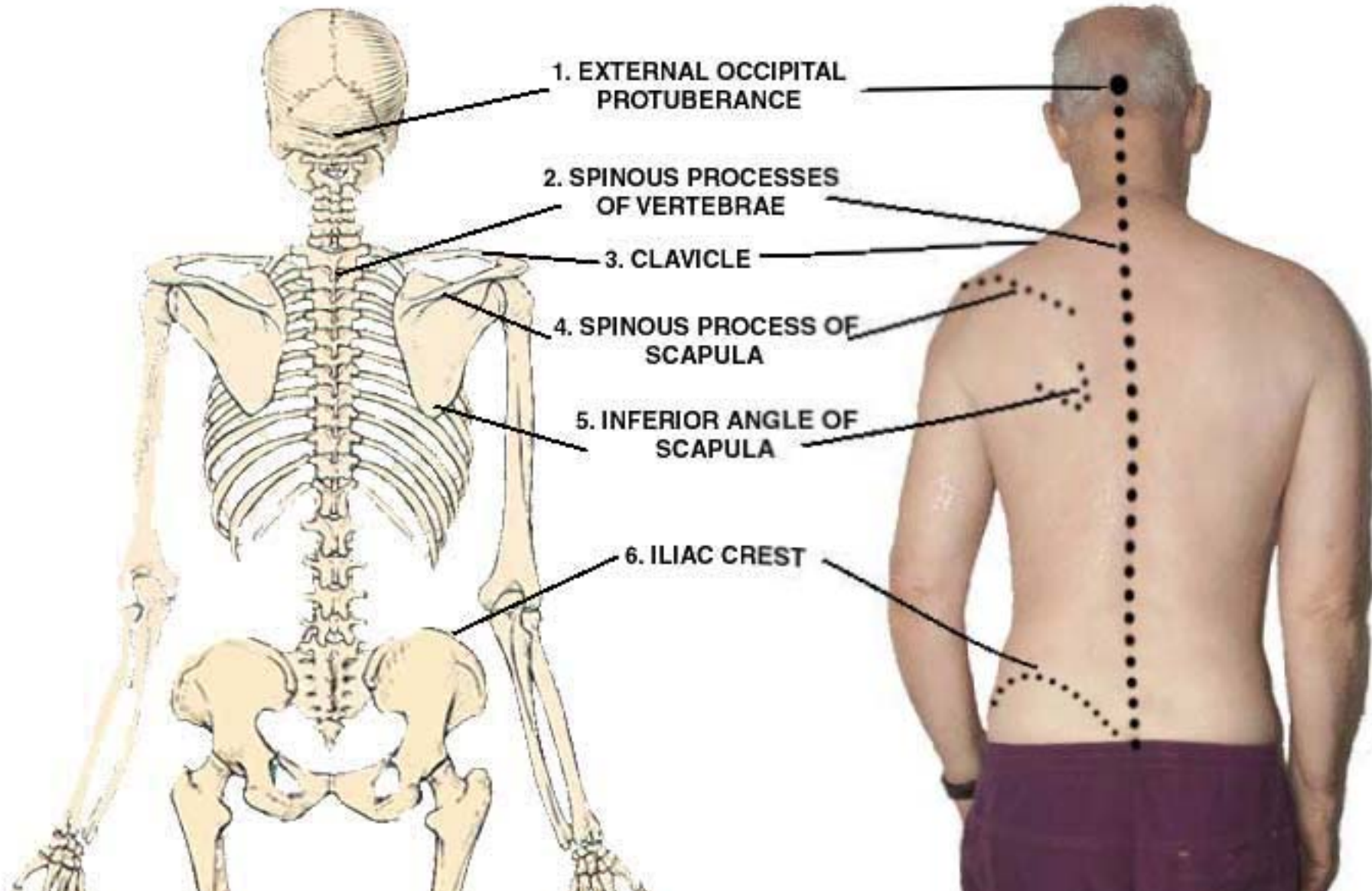
The back

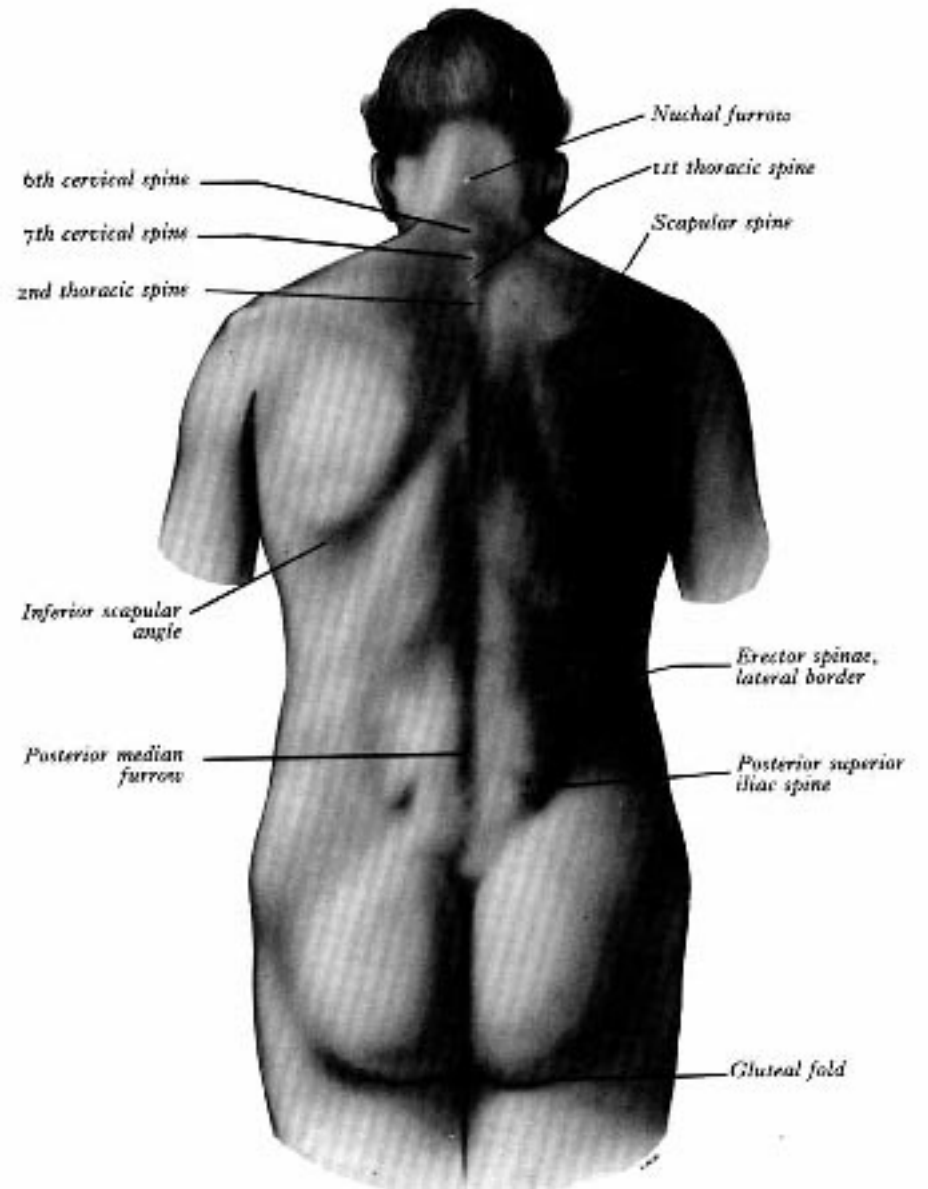
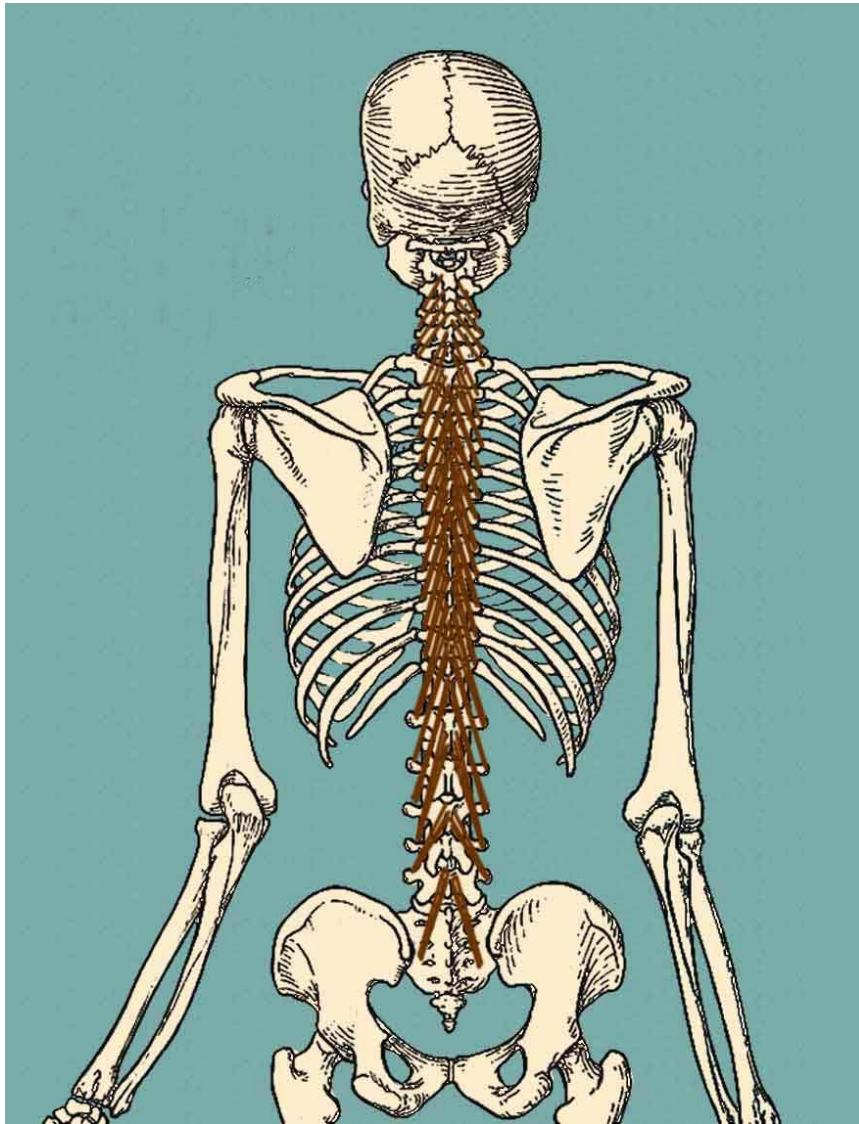
Curvatures

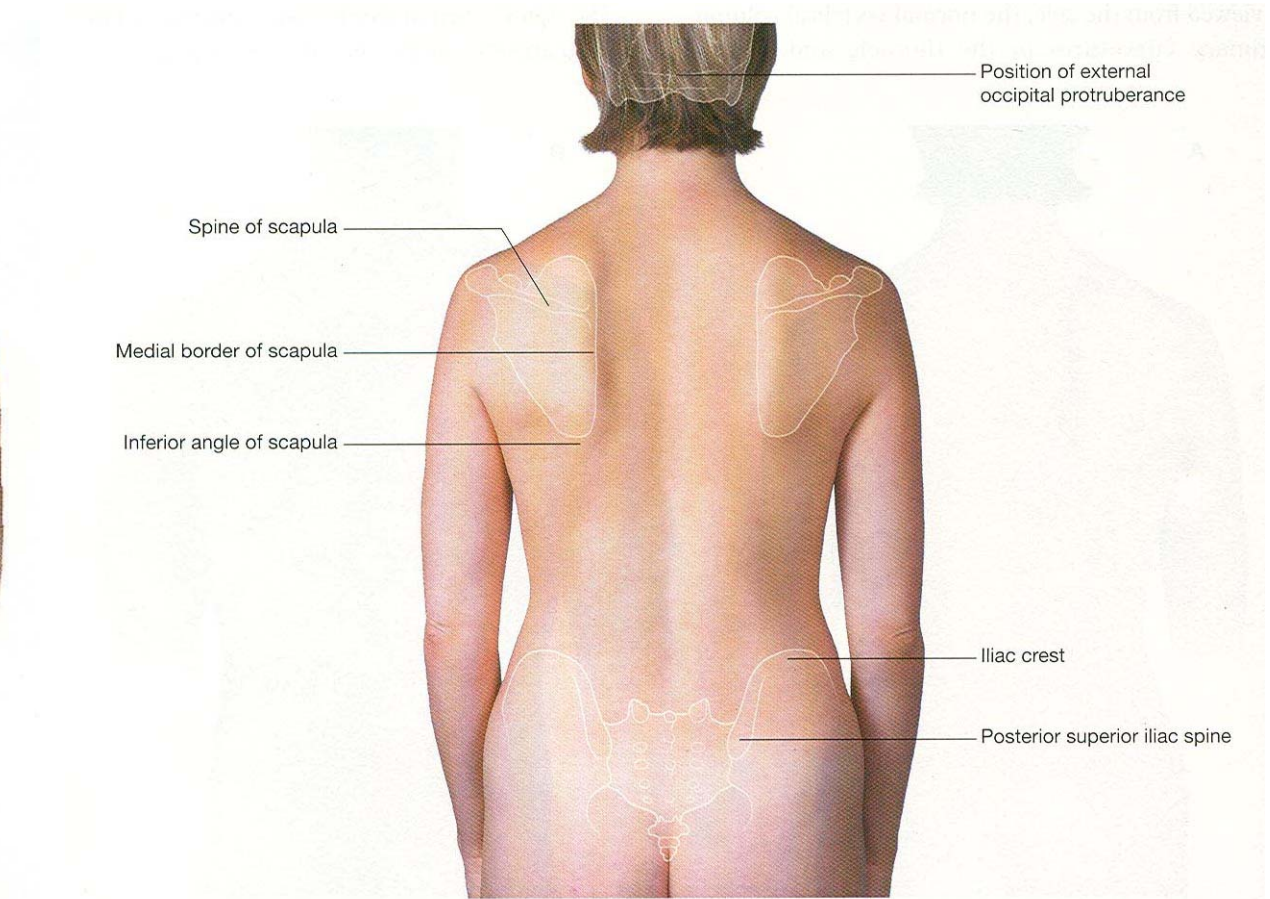
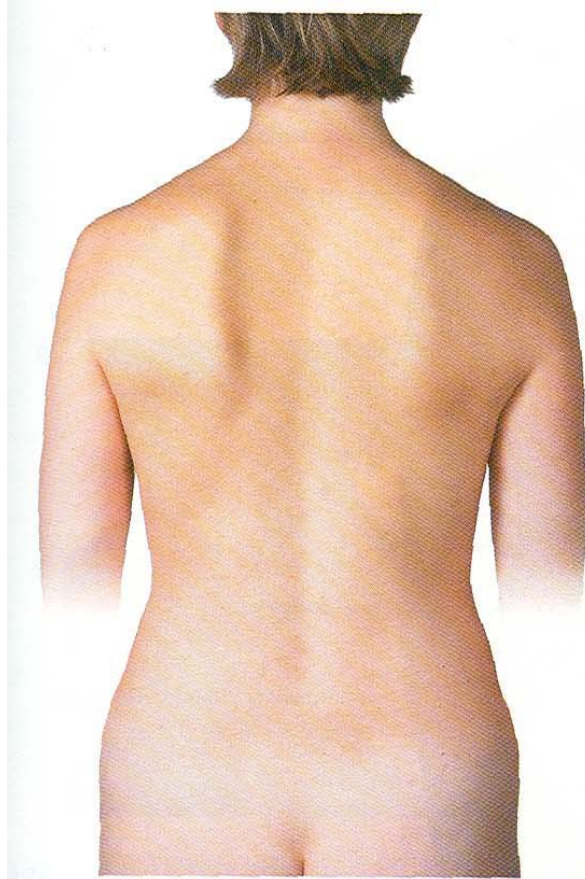
- Primary – Concave Anteriorly (Thoracic, Sacral)
- Secondary – Convex Anteriorly (Cervical, Lumbar)



Back - landmarks







Landmarks

Scapula – 2nd to 7th rib

Acromion – top of shoulder

Crest of spine – from acromion medially, downwards

Medial border and inf. angle of scapula - palpable

Iliac Crest – curved bony ridge below the waist

ASIS – Ant. end of iliac crest

PSIS – Shallow dimple above buttock

approx. 5 cm from median plane

Sacrum – Lies between two dimples of PSIS

Coccyx – Between buttocks in median plane

Spine of C-7 – at root of neck

External Occipital protuberance – In Median Plane

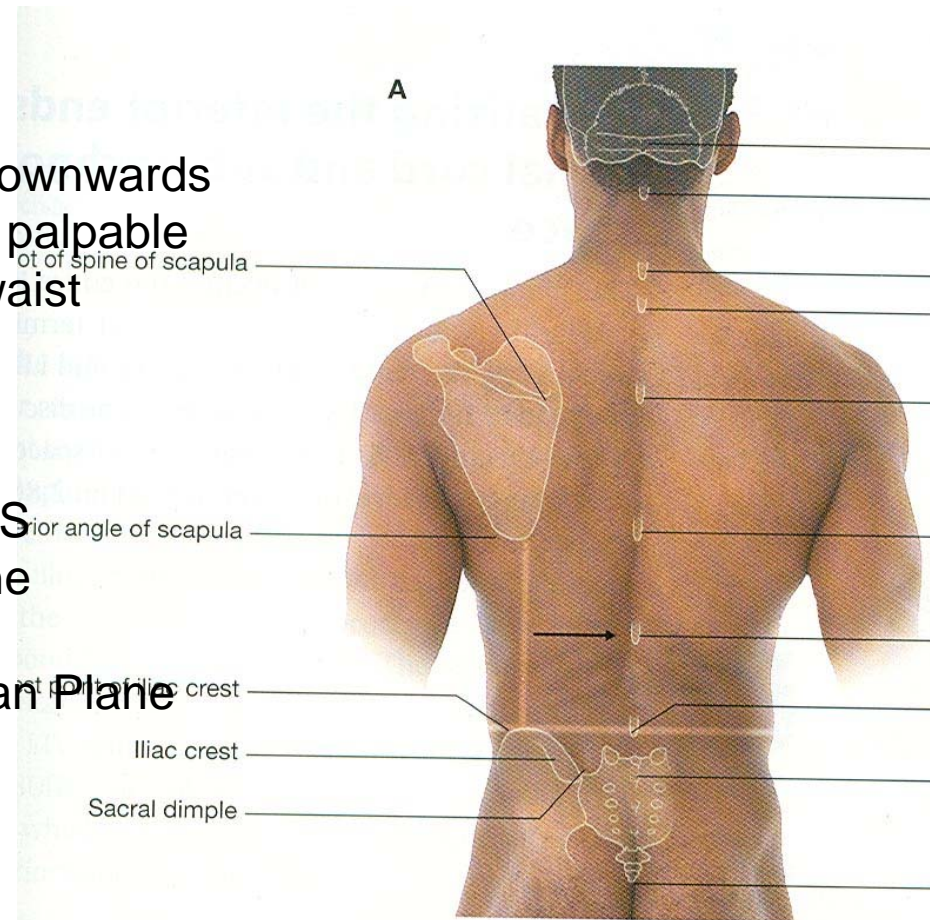
Superior Nuchal Lines – On either side

T3 spine at level of spine of scapula

T7 spine at level of inferior angle of scapula

L4 – highest point of iliac crest

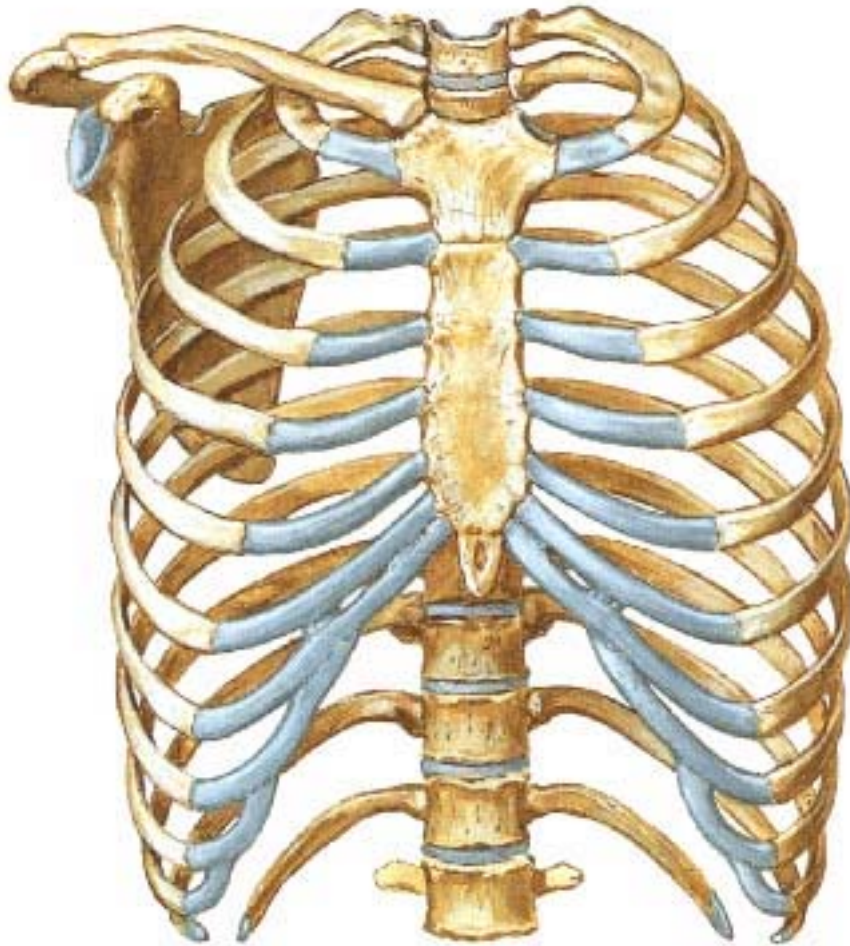
S2 - At PSIS



Shoulder Girdle

Bones – Scapula
-- Clavicle

Joints – Sterno-clavicular
Acromio-clavicular

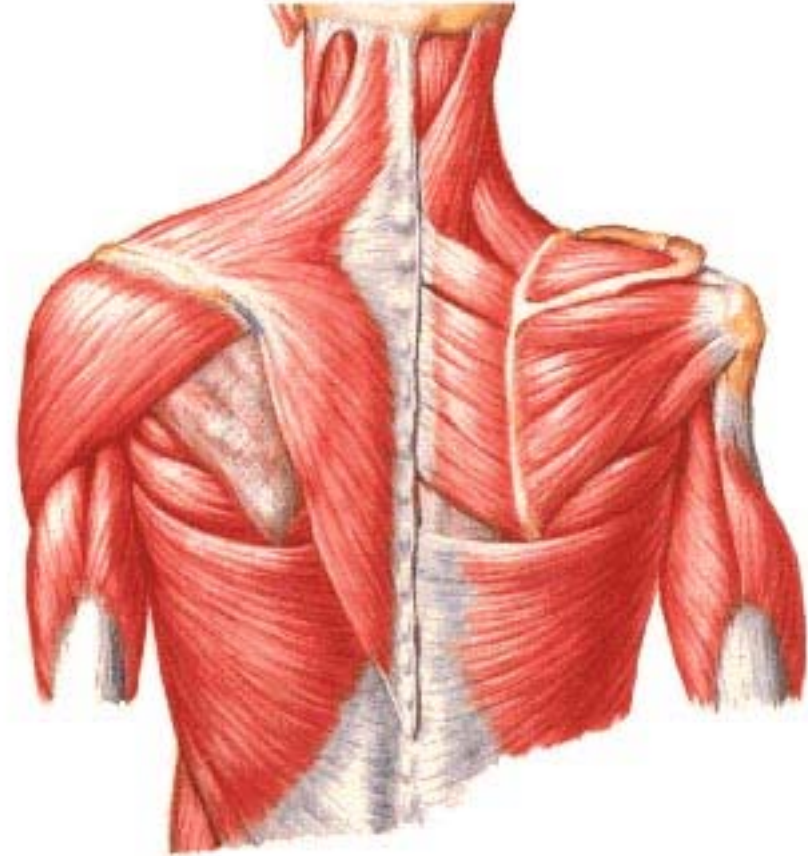
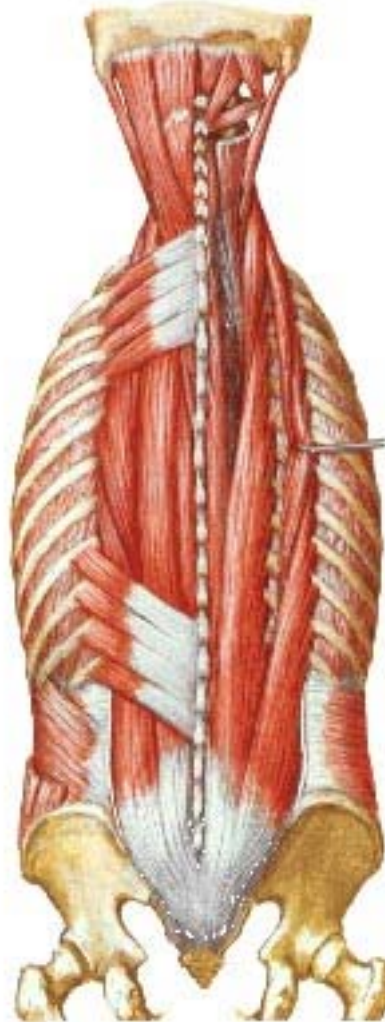
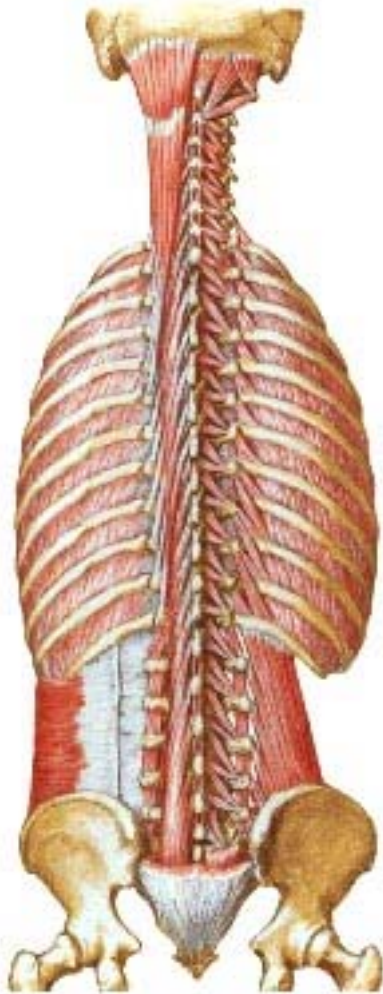


Muscles of the Back

Three groups:

- **Superficial** - muscles that act on the upper limb
- **Intermediate** - muscles of thorax
- **Deep** - muscles of vertebral column

Muscles of the Back



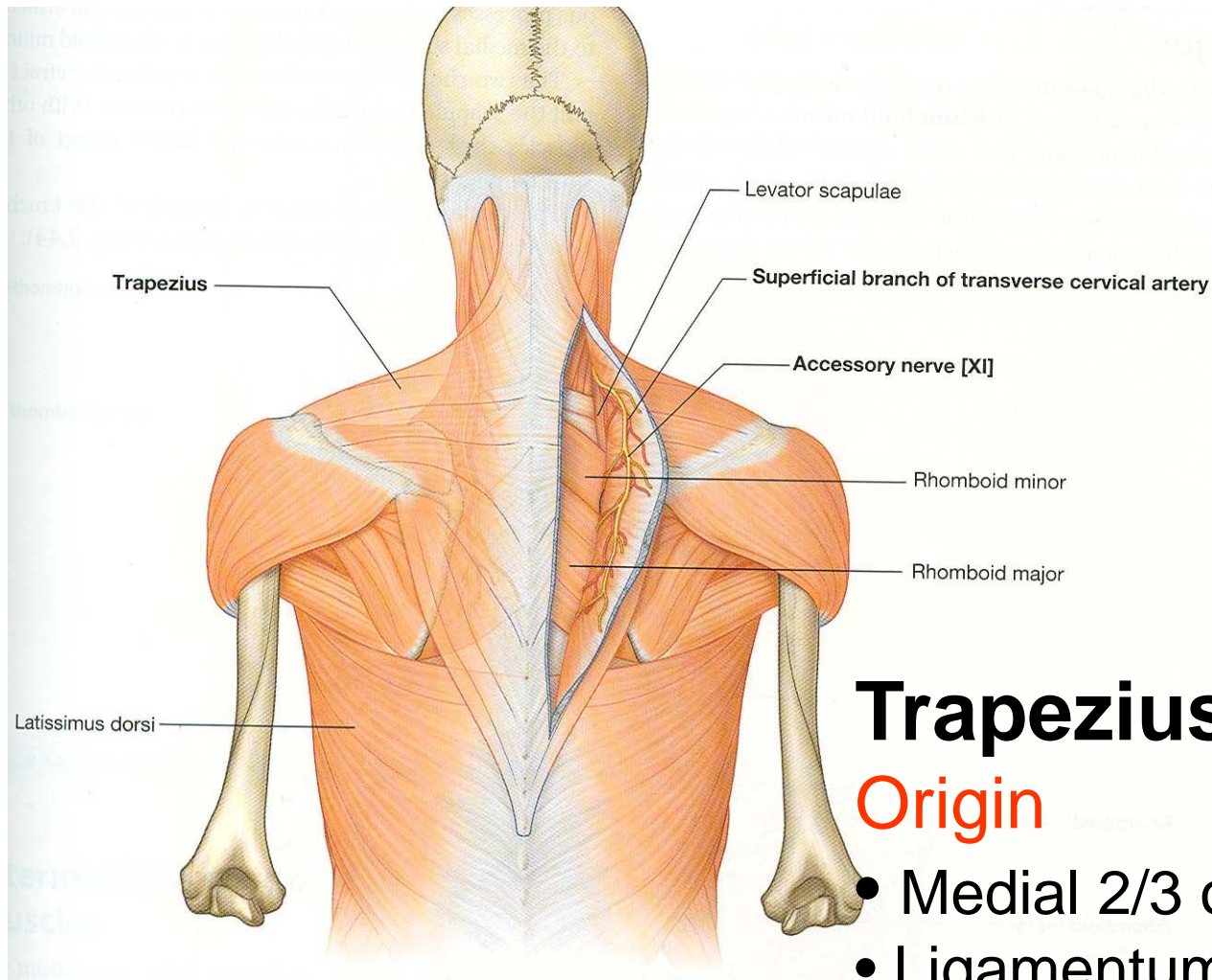
Muscles of the Back

5 pairs of muscles in the superficial layer

- Trapezius
- Latissimus dorsi

Under Cover of Trepezius

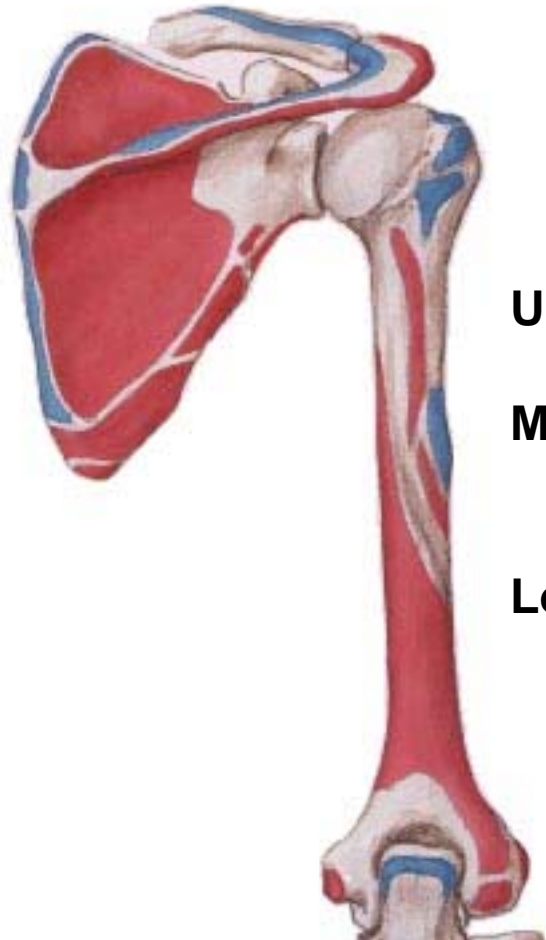
- Rhomboid major
- Rhomboid minor
- Levator scapulae



Trapezius

Origin

- Medial 2/3 of superior nuchal line
- Ligamentum Nuche
- 7th cervical spine
- All thoracic vertebral spines (T1 – T12)



Insertion

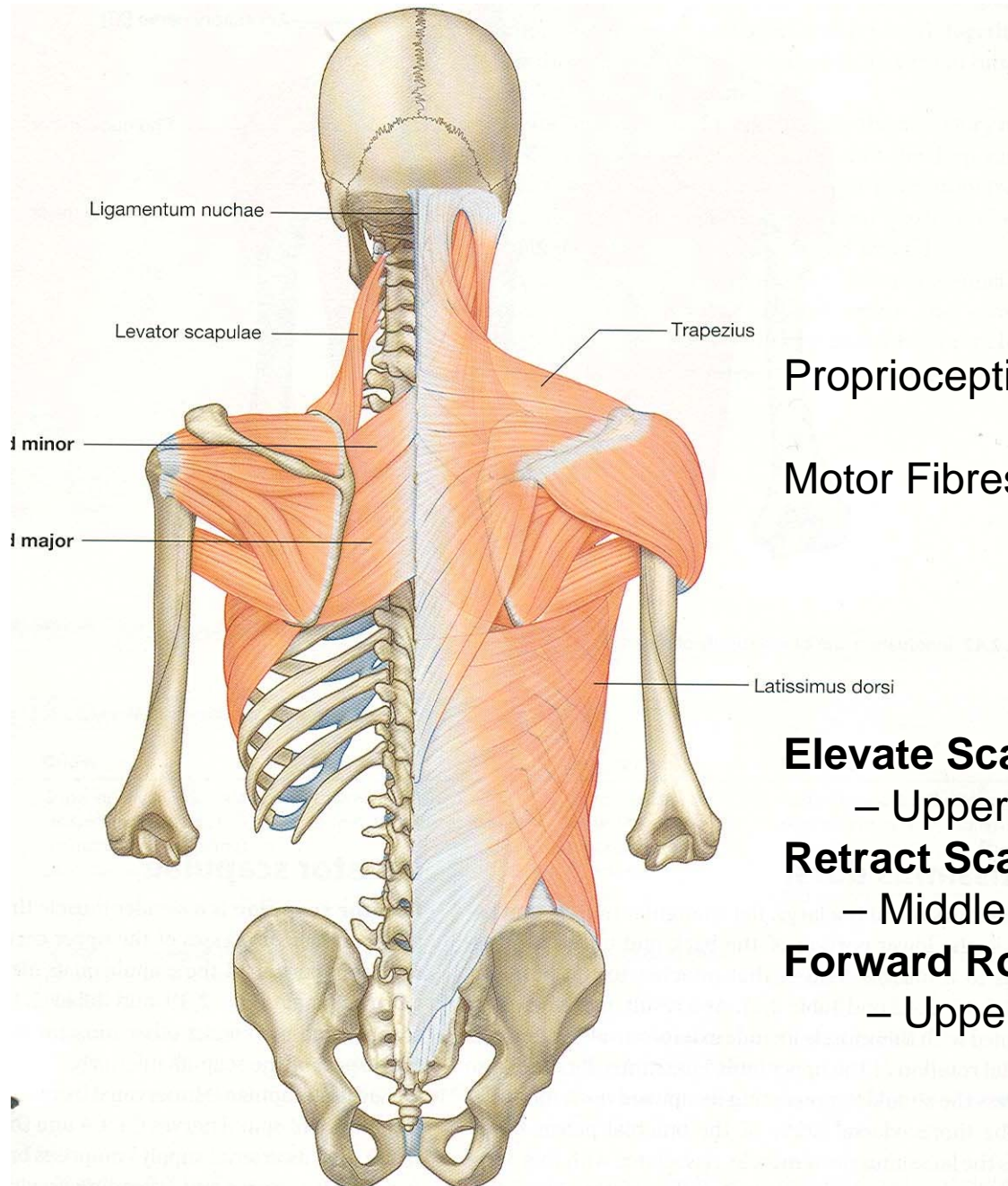
Upper or occipital fibres

- post. Border of lat. 1/3 of clavicle

Middle fibres

- Medial border of Acromion
- Upper lip of crest of spine

Lower fibres – Deltoid Tubercle



N. Supply

Proprioceptive – conveyed by ventral rami of C3 and C4

Motor Fibres – Spinal part of Accessory Nerve

Main Action

Elevate Scapula

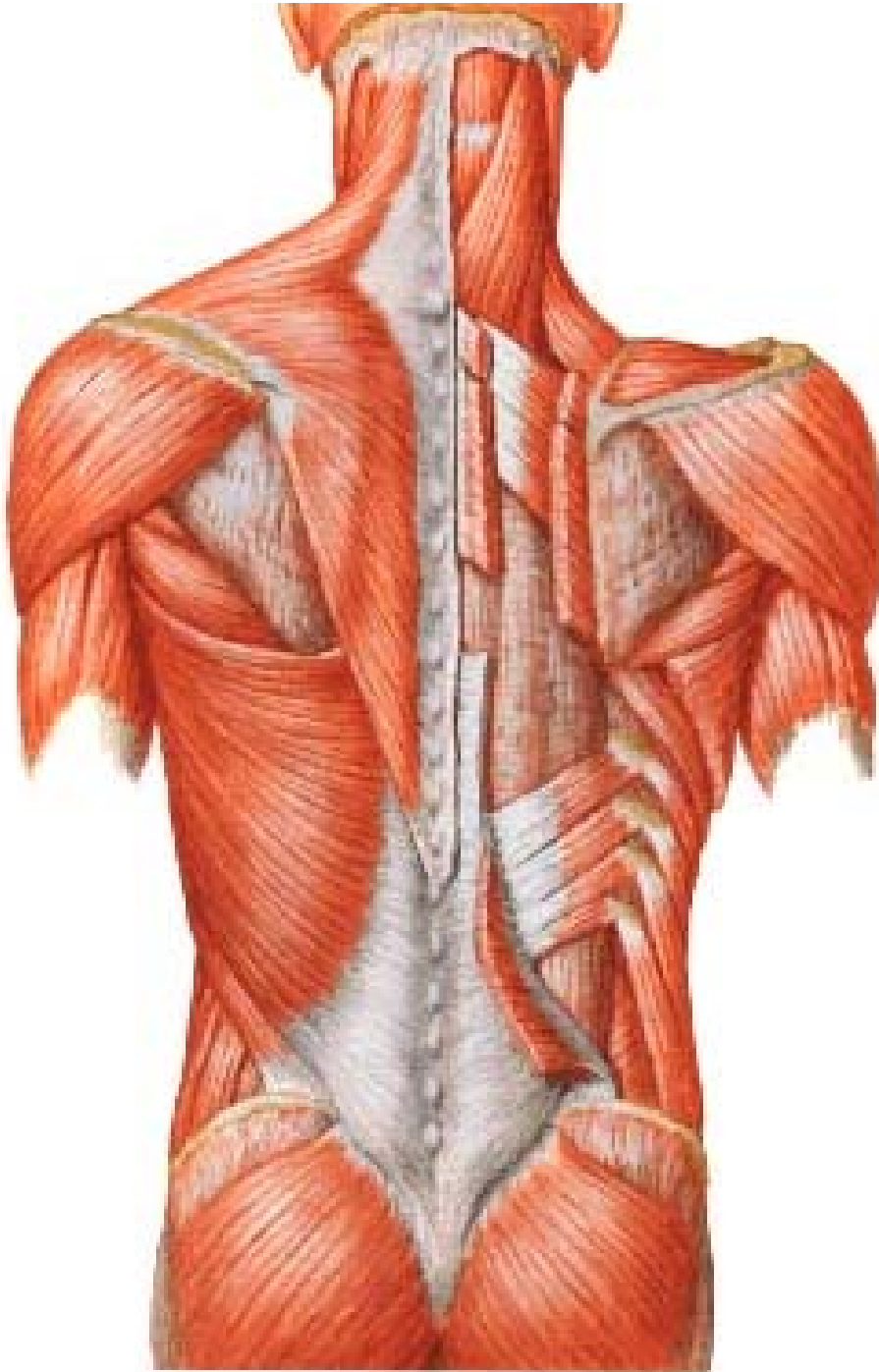
– Upper Fibres with Levator Scapulae

Retract Scapula

– Middle Fibres with Rhomboids

Forward Rotation of Scapula

– Upper and Lower Fibres with Serratus Ant.



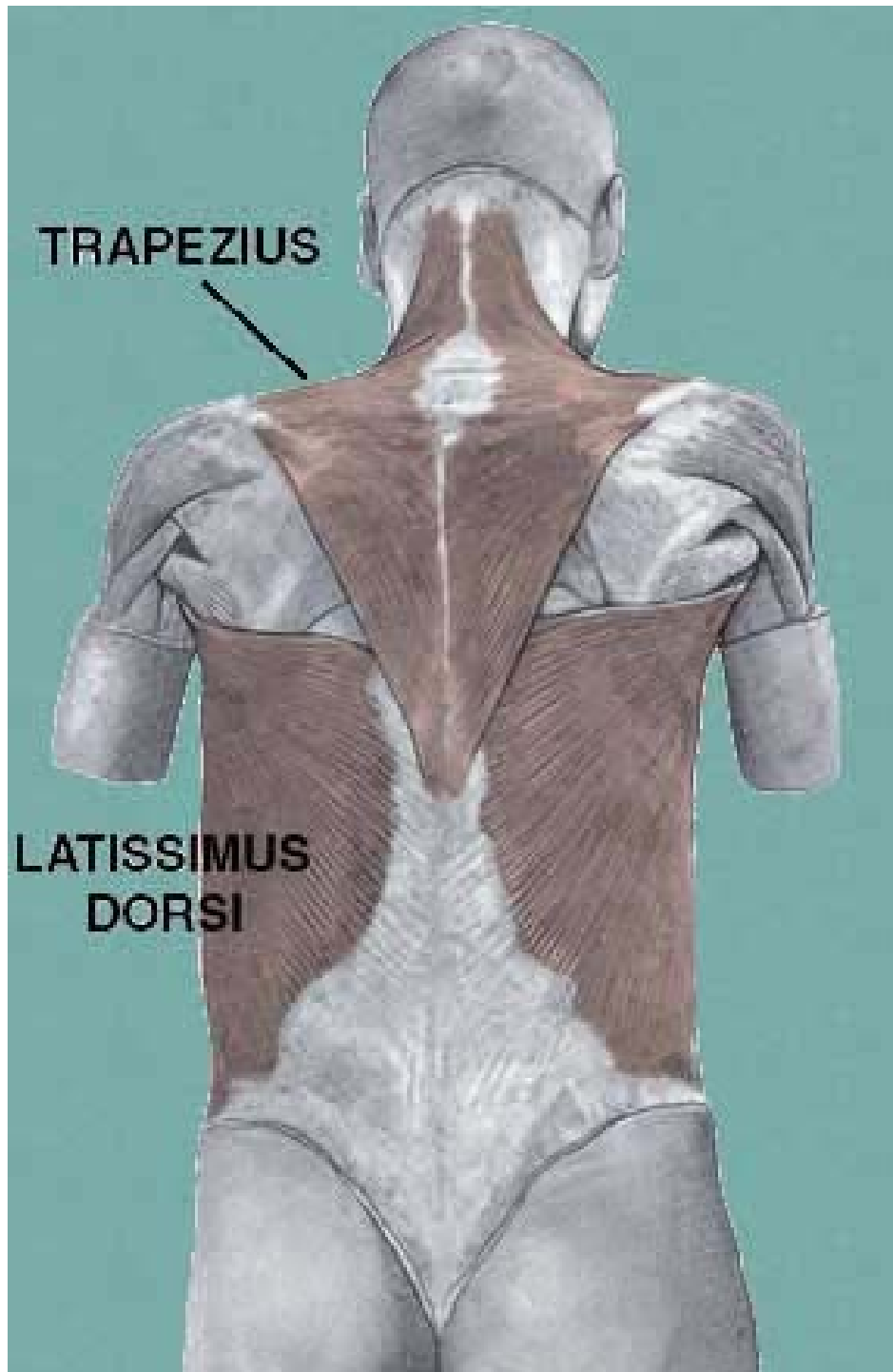
Latissimus Dorsi

Origin

- Post 1/3 of outer lip of iliac crest
- Post Layer of Thoracolumbar Fascia
- Lower Four ribs
- Spines of T7 – T12
- Inferior Angle of Scapula

Insertion

Floor of intertubercular sulcus
(Bicipital Groove)



Latissimus Dorsi

Nerve Supply

Nerve to L. Dorsi (Thoracodorsal Nerve)
(From post. Cord)

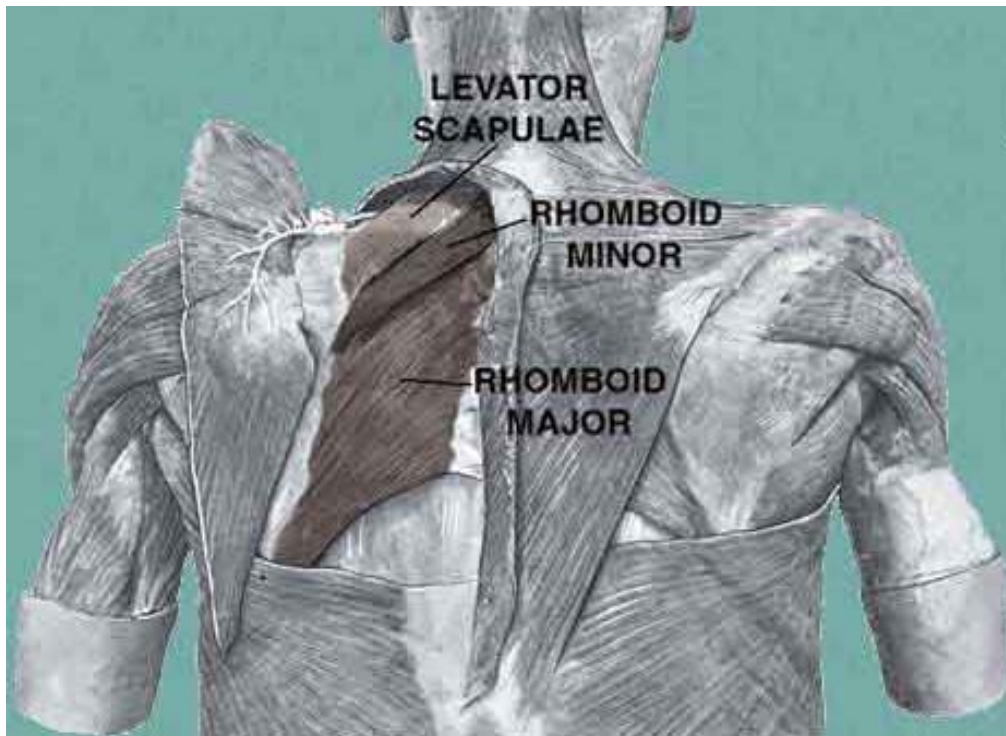
Action

Adduction
Extension and
Medial rotation of Shoulder

Swimming , Climbing

Costal fibres help in inspiration

Rest in violent expiration
– Coughing , Sneezing



Levator Scapulae

Origin

Tr. Process of C1 - C4

Insertion

Medial (Vertebral border of Scapula)
from Sup. Angle to apex of spine

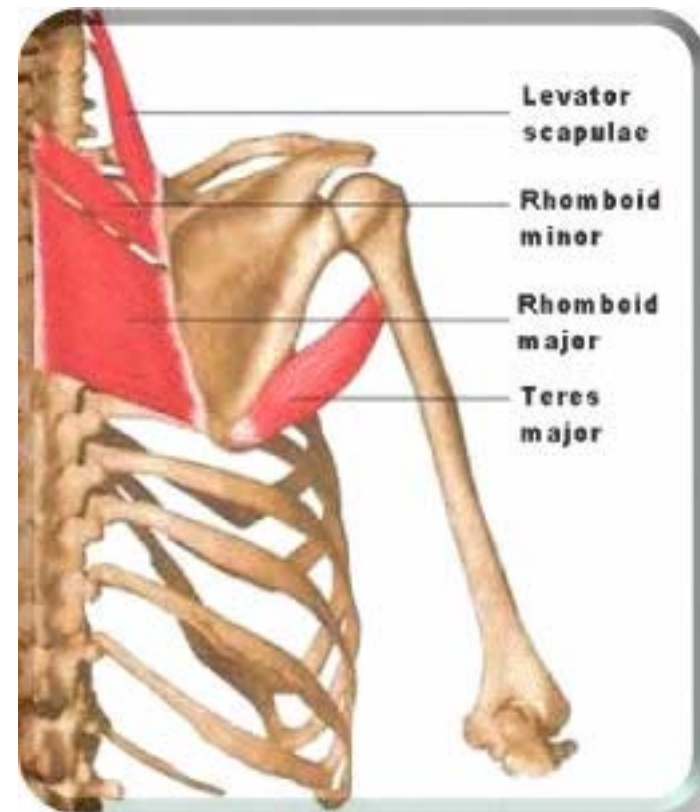
N. Supply

C3 C4

N. to Rhomboids (Dorsal Scapular Nerve)

Action

Elevate Scapula with Trepezius (Upper Fibres)



Rhomboideus Major

Origin

Spine of T2 – T5

Insertion

Dorsal aspect of medial border from inferior angle to root of spine

Rhomboideus Minor

Origin

Lower part of Ligamentum Nuchae

Spine of C7 and T1

Insertion

Apex of Spine

Action

Retract scapula with Tr. Middle Fibres

Rotate Scapula and depress shoulder with levator scapulae

Both supplied by Nerve to Rhomboids (Br Of Root)

Movements

Elevation of Scapula (Shrugging of Shoulders)

Upper fibres of Trapezius

Levator Scapulae

Depression of Scapula (drooping of Shoulders)

Gravity

Lower fibres of Serratus anterior

Pectoralis minor

Protraction of Scapula (Pushing and Punching movements)

Serratus Anterior

Pectoralis Minor

Retraction of Scapula (Squaring of Shoulders)

Rhomboids

Middle fibres of Trapezius

Forward Rotation of Scapula (Overhead abduction of Shoulder)

Upper fibres of Trapezius

Lower fibres of Serratus Anterior

Backward rotation of Scapula

Gravity

Levator Scapulae

Rhomboids