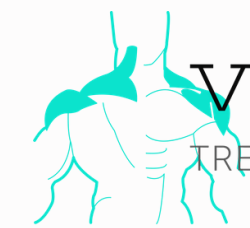


GROW

The upper limb



Victoria Roper
TREAT - TRAIN - TEACH

TODAY

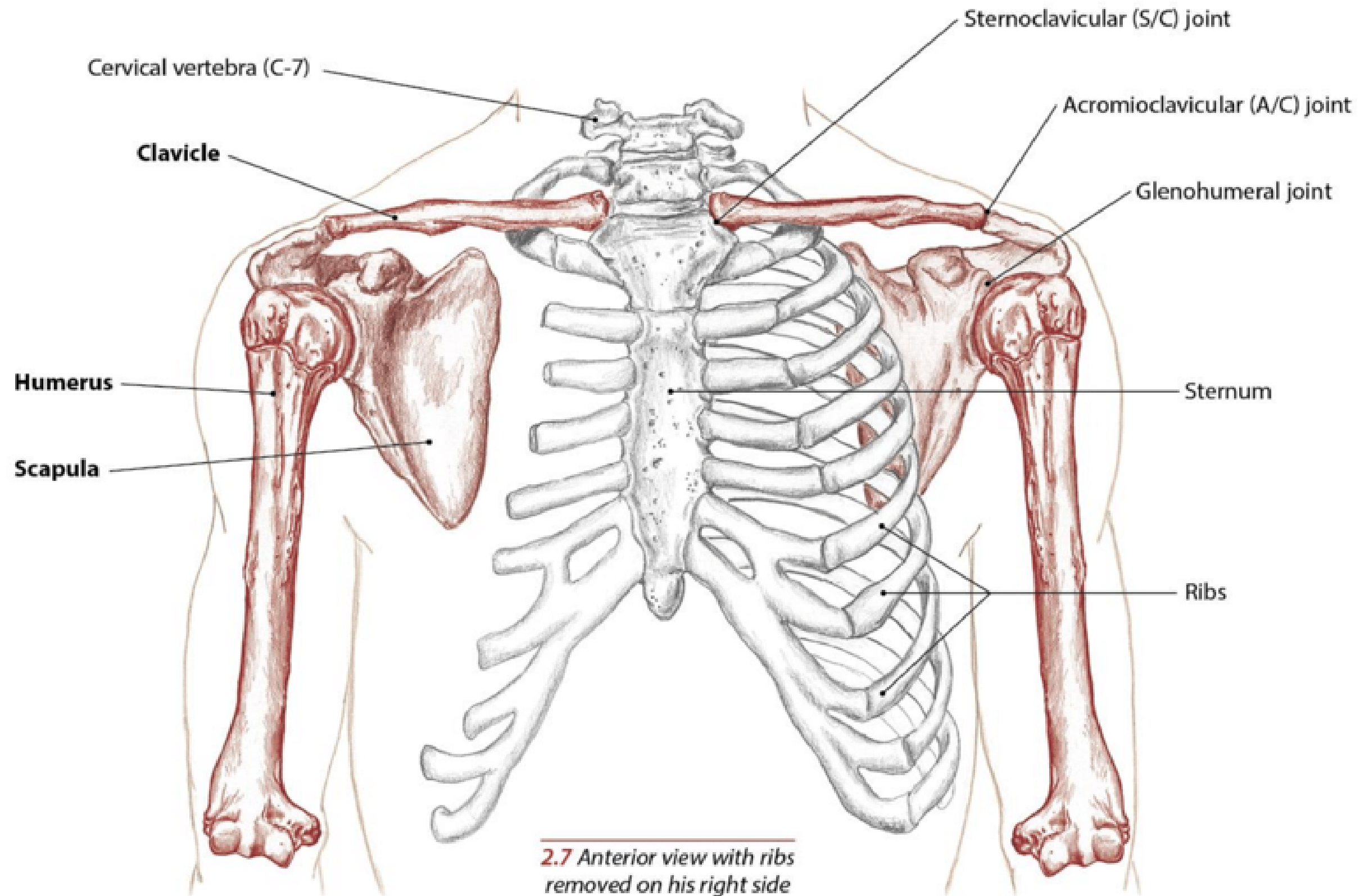
What's on the agenda

- Anatomy Review, Shoulders and surrounding musculature
- Major components of optimum shoulder function
- Minor components of shoulder function
- Superficial and deep restrictions

History

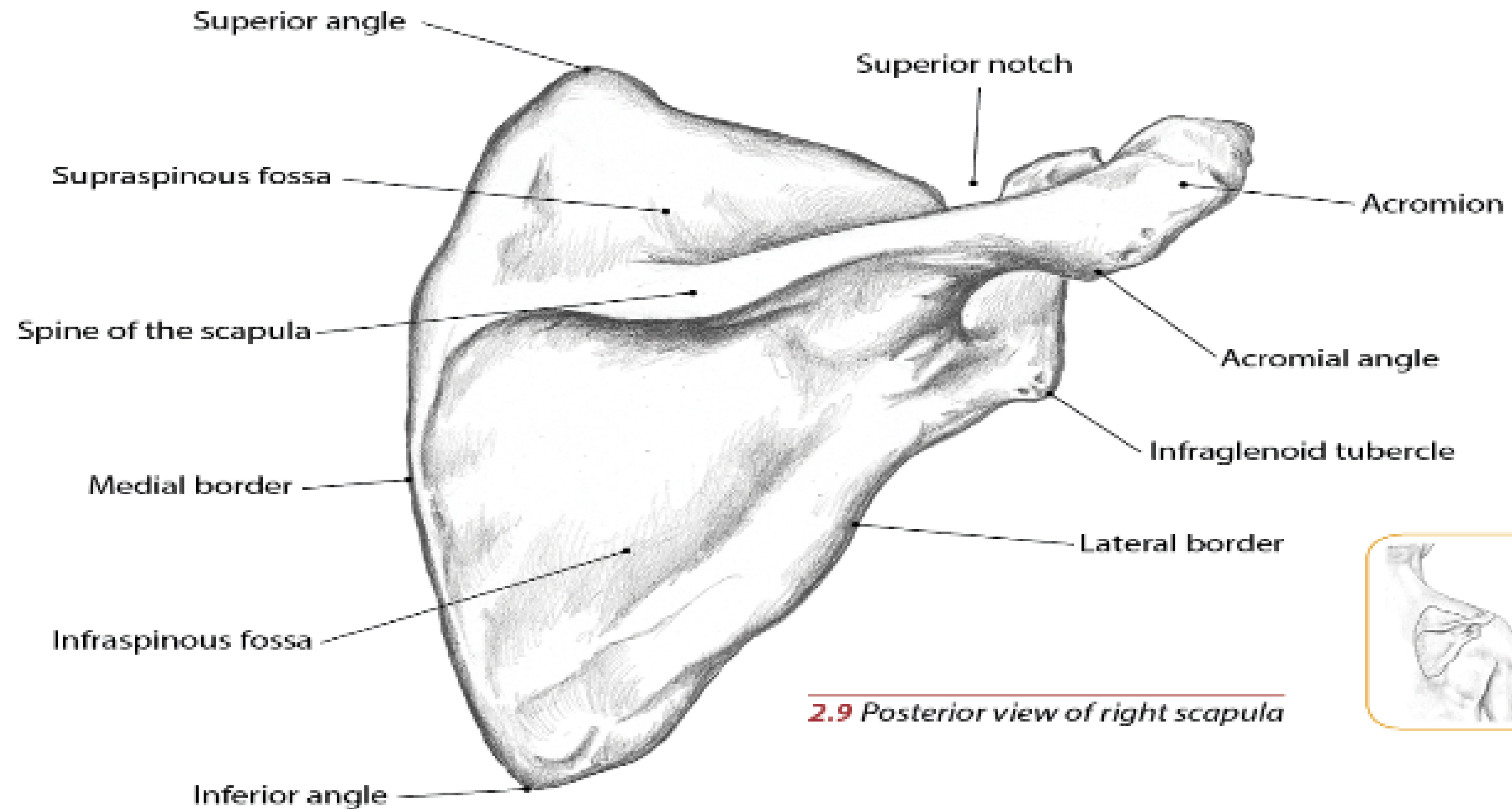
- The embryological growth of the arm comes from the fingers to the fore arm, finally the humerus and then the scapula form.
- Fore- arm= First arm
- Spirals develop

The Shoulder Girdle

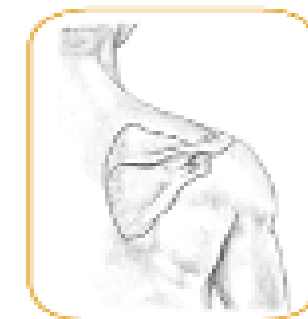


2.7 Anterior view with ribs removed on his right side

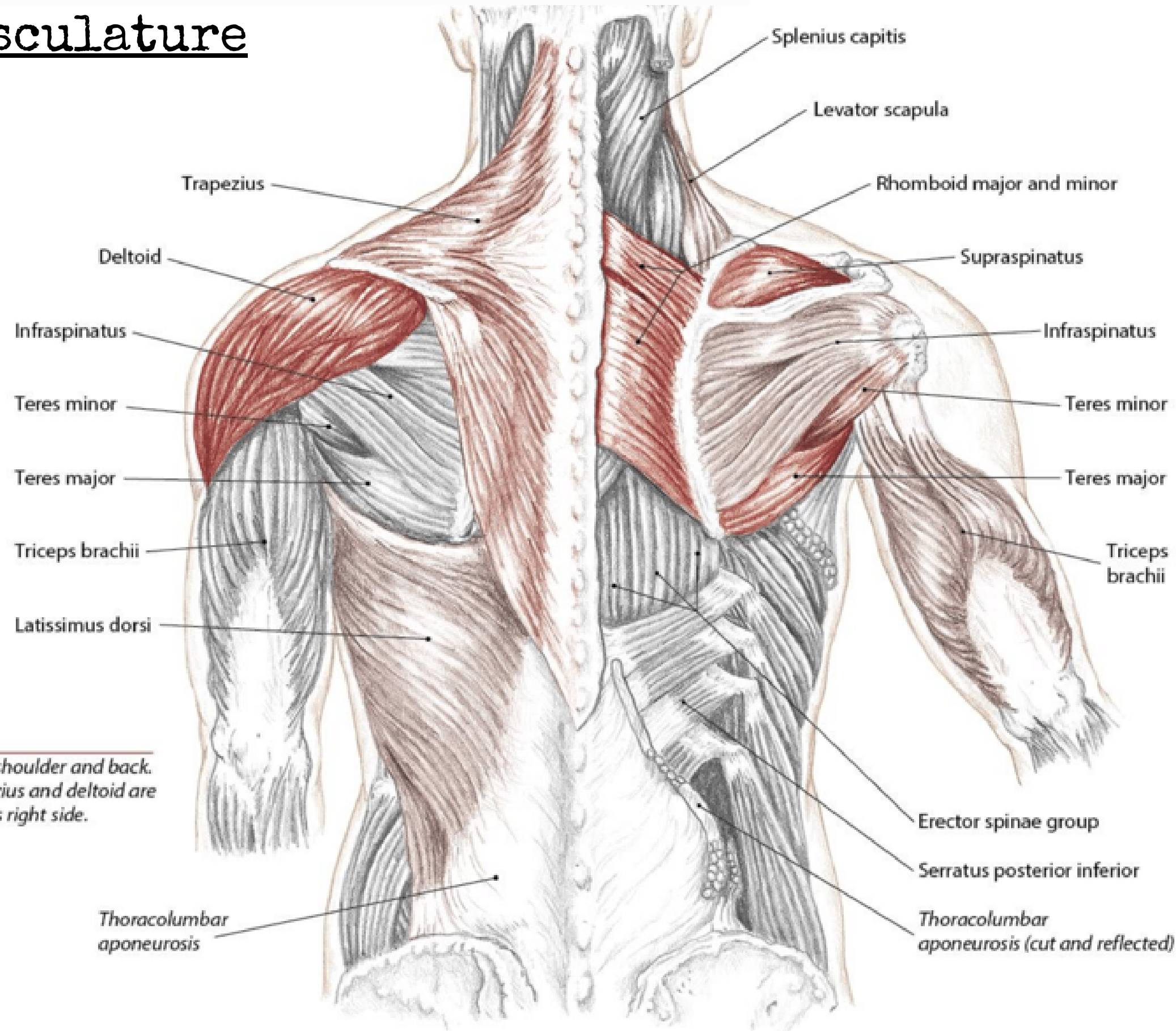
Scapula



2.9 *Posterior view of right scapula*

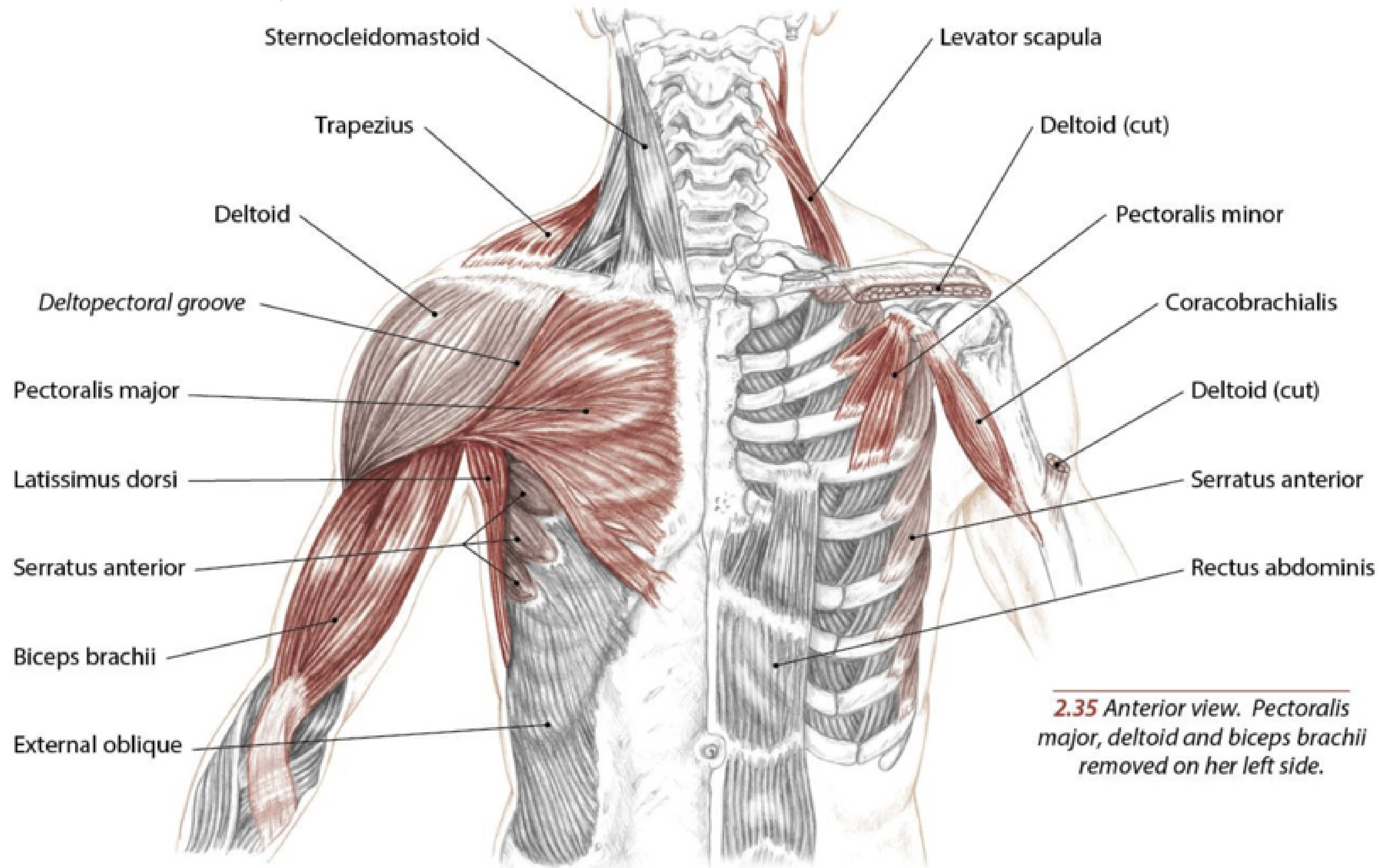


Posterior superficial and deep musculature

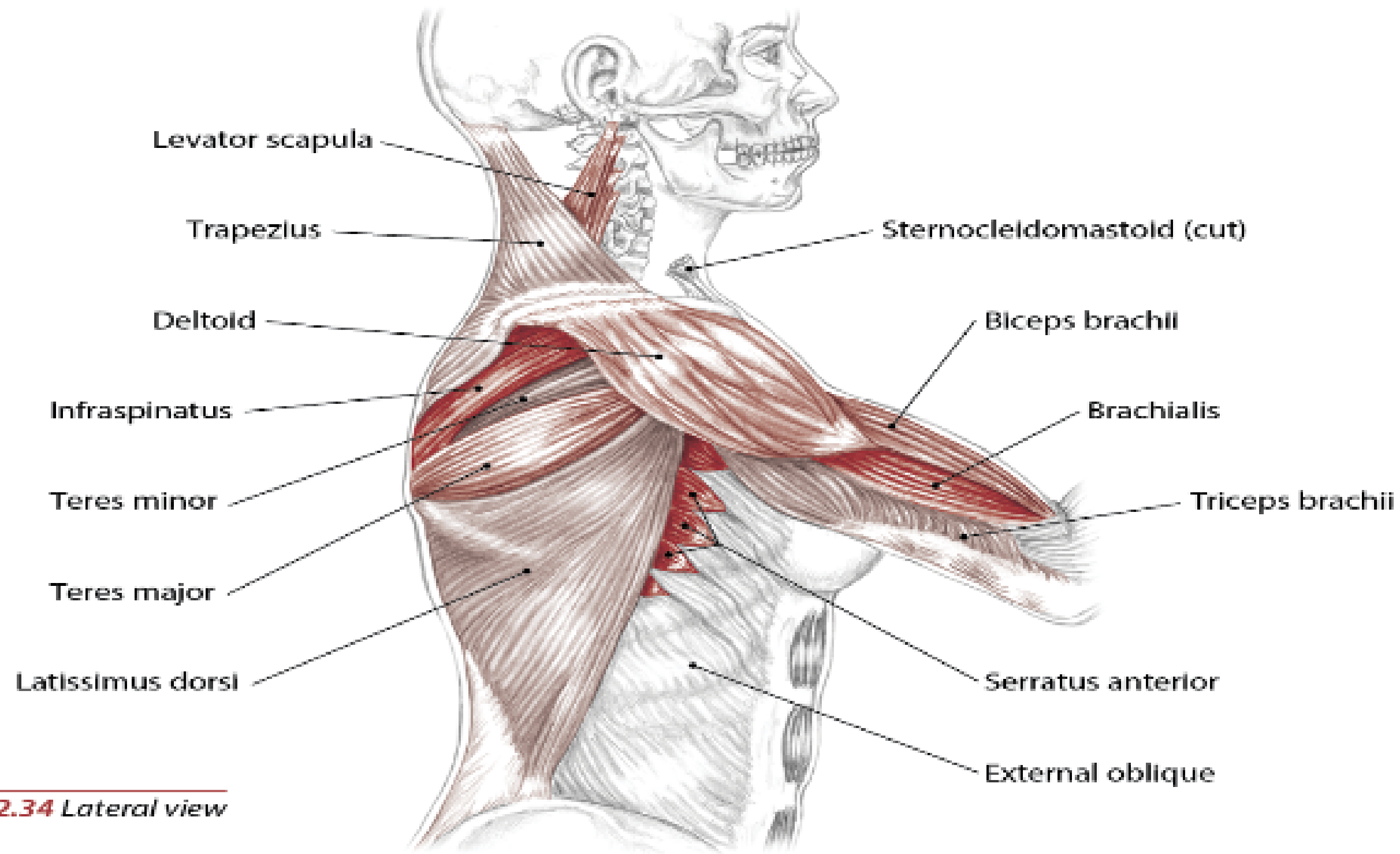


2.33 Posterior view of shoulder and back. Latissimus dorsi, trapezius and deltoid are removed on his right side.

Anterior superficial and deep musculature



Lateral View



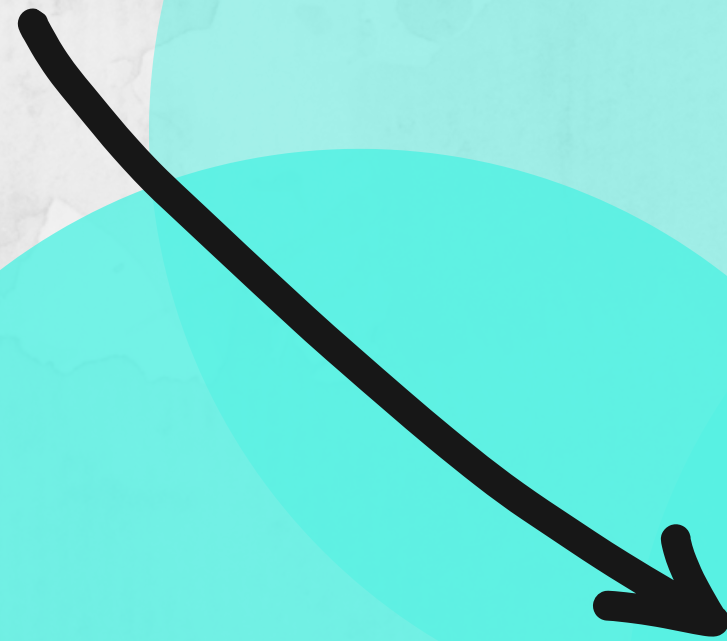
2.34 Lateral view

Optimum Shoulder
function

Shoulder complex

Cervical Spine and
Placement

Thoracic Spine



Optimum Shoulder
function

**What can we do, within our
scope of practice to find and
achieve this?**



Positions

Set Clients up for success in optimal positions.

This will look different depending on:

Age

Posture (and all its variables)

function

4PK/Plank

Seated

Standing

Prone

Supine

Which pads/props can be used in the lower body to affect the upper body?

Positions

4PK/Plank- regular, incline, roller, stability ball, cushion

Seated - On ball, chair, box, legs long, legs crossed

Standing- stability, one leg, split stance

Prone, regular, over ball, over barrel

Supine, on roller, floor, inverted

Tests

Can you mobilize your scapula, pelvis and head?

Can you flex the shoulder?

Put one leg in a different position and repeat the above.

What if the client cannot get into these positions due:
tightness
restriction
etc ??

Unlock and release unnecessary tension/stiffness



With Caution

Deep

Diaphragm



Viseral Facsia



Liver

Superficial

Ribs and thoracic



Scapula placement



Shoulder function

Deep

Diaphragm



Viseral Facsia



Liver

Superficial

Ribs and thoracic



Scapula placement

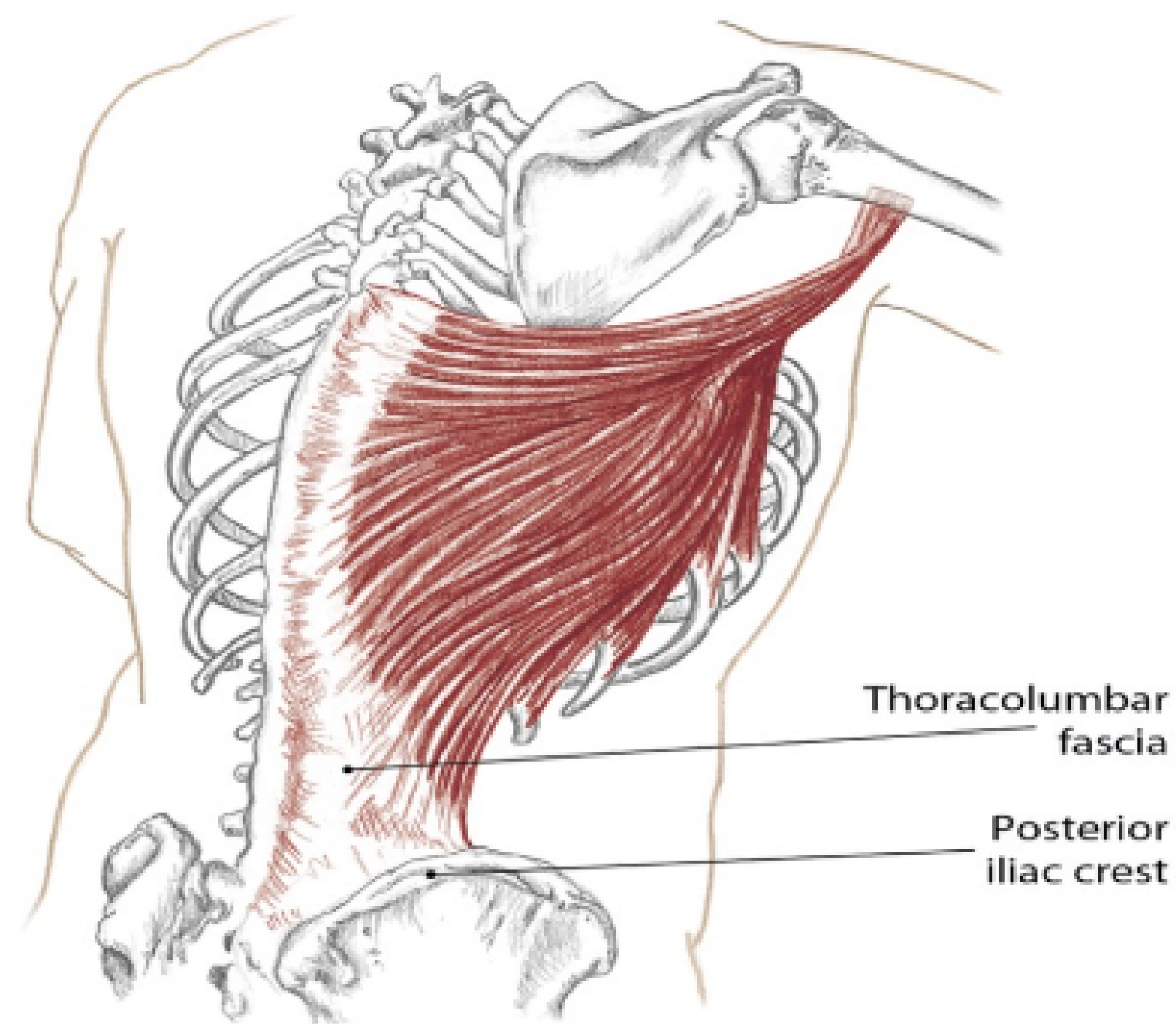


Shoulder function

Superficial fascial restriction

Latissimus Dorsi

- A** **Extend** the shoulder (glenohumeral joint)
- Adduct** the shoulder (G/H joint)
- Medially rotate** the shoulder (G/H joint)
- O** Inferior angle of scapula, spinous processes of last six thoracic vertebrae, last three or four ribs, thoracolumbar fascia and posterior iliac crest
- I** Intertubercular groove of the humerus
- N** Thoracodorsal C6, 7, 8



2.46 Lateral/posterior view of latissimus dorsi

Superficial fascial restriction

Pectoralis Major

A All fibers:
Adduct the shoulder (glenohumeral joint)

Medially rotate the shoulder (G/H joint)

Assist to **elevate** the thorax during forced inhalation (with the arm fixed)

Upper fibers:

Flex the shoulder (G/H joint)

Horizontally adduct the shoulder (G/H joint)

Lower fibers:

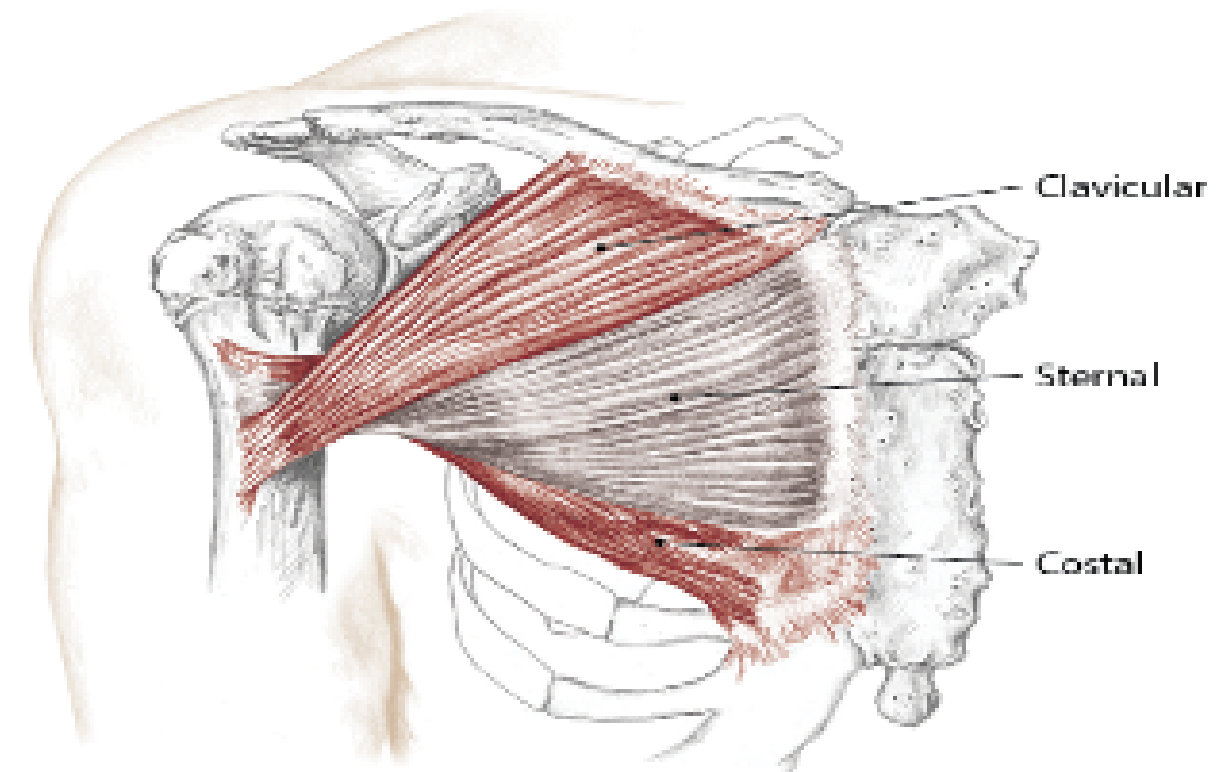
Extend the shoulder (G/H joint)

O Medial half of clavicle, sternum and cartilage of first through sixth ribs

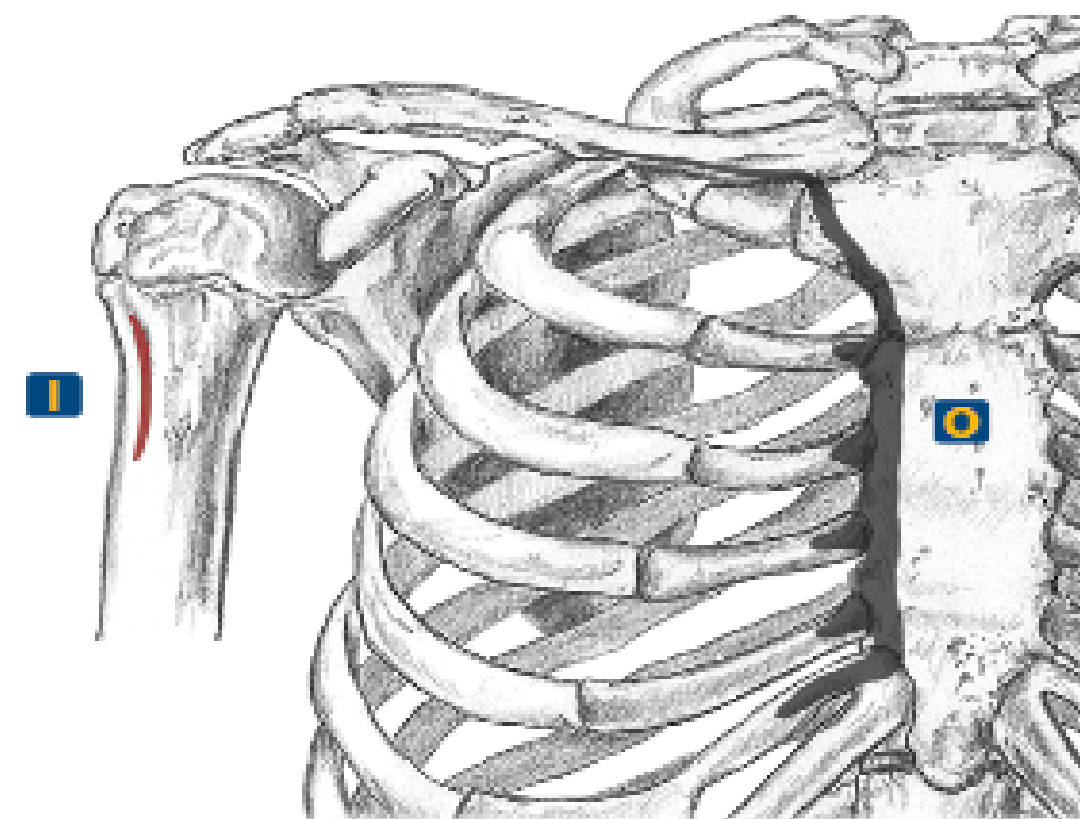
I Crest of greater tubercle of humerus

N Upper fibers:
Lateral pectoral C5, 6, 7

Lower fibers:
Lateral and medial pectoral C6, 7, 8, T1



2.88 Anterior view identifying the three segments of pectoralis major



2.89 Origin and insertion of pectoralis major

Releasing superficial fascia

Foam roller/Trigger point ball release

Transgeminal plane
light pressure

Breathing into restricted area

With props, band, small ball
Use movement to layer in, should involve
muscle/s you just released

TEST, using tests you initiated with.

Use new found ROM to exercise IN to.

For Example:

Spinal rotation

Thoracic extension

Shoulder flexion -

(farmer carriers, overhead band press, etc, etc)

Fascial bouncing upper limb

Deep

Diaphragm



Viseral Facsia



Liver

Superficial

Ribs and thoracic



Scapula placement



Shoulder function

Test First

Bounce diaphragm
release

Breathing with lateral flexion

Breathing with lateral flexion and rotation

It doesn't matter which route we take, superficial or deep, they all come down to breathing.



Check out the opposite hip

Add in stability work on one leg

Work into obliques as much as possible. Both mobility and stability wise

Focus on functional unilateral, contralateral and reciprocal work

Additional questions to ask/things to consider

How do the palms naturally behave?

What happens to the arm spiral when we add a bar?

What would be better instead?

What about a pull up type movement?

What is more functional?