

# Remedy exercise

Hi, my name is \_\_\_\_\_. I'm the student massage therapist.

I just washed my hands for 20 seconds and sanitized my hands.

I'm going to show you some remedial exercises and stretches, you can do at home to help improve your condition.

During the massage treatment, I found that some muscles are weak and some muscles are too tight.

Using these home exercises, you can get more benefits outside of the massage treatment.

Please keep in mind, when you do these exercises at home, always warm up your body first. You can simply take a warm shower or do some light cardio exercise. Wear comfortable clothing. Find an area that you can stabilize yourself to prevent injuring yourself.

It is normal to feel some muscle tension or muscle tightness during the exercise and stretches. Please let me know if it gets too uncomfortable. I will modify and suggest some other exercises for you. If you have any severe reaction like sever pain, nausea, vomiting, massive headache. You need to stop the exercise right away and let me know. I will design another exercise plan for you.

Do you understand? Do you have any questions? Can we start?

## Stretch

First, I will show you how to stretch your muscles. This will lengthen the muscle fibre from origin to insertion. This can get rid of muscle tension and increase muscle capacity. This muscle located here \_\_\_\_ major action is \_\_\_\_\_. Stretching the muscle means to do the opposite of that muscle action. I am going to demonstrate for you first. You should feel the stretch here but not pain. Keep normal breathing and no bouncing movement during the stretch. Now, Can you show me how to do that stretch on yourself? Can you do it one more time? so I can ensure you are doing it properly and safely. Do you feel the stretch without pain? Remember when doing this stretch, hold for 30 seconds. Do it 2-3 sets per day.

## Isometric

Next, I am going to show you how to do isometric strengthening exercises for your \_\_\_\_\_ muscle. Isometric means muscle contraction against the static resistance without joint movement. Using this exercise, it can increase the muscle strength. This muscle is located \_\_\_\_\_ major action \_\_\_\_\_. I am going to show you how to do it. Then you can do it for me afterward. Please repeat the exercise so I can ensure you are doing it properly and safely. Can I touch you? Do you feel the tension here without pain? Make sure to hold contraction for 6-8 seconds then relax. Repeat 10-15 times per set. Do 2-6 sets per day.

## Isotonic

Next, I am going to show you how to do isotonic strengthening exercise for your \_\_\_\_\_ muscle. Isotonic means muscle contraction against moving resistance with joint movement to strengthen the muscle. This muscle located \_\_\_\_\_ major action \_\_\_\_\_. Let me show you the exercise first. Then I will ask you to do it for me. Please repeat the exercise so that I can ensure you are doing it properly and safely. Please do it slowly and control the movement. Can I touch you? Do you feel the tension without pain? Try to do it 10-15 times per set. 2-6 sets per day.

# Contract relax

Before you leave, I noticed you have \_\_\_\_\_. You get muscle spasm in this area. I am going to do some therapeutic stretches for you. I am going to use one of the PNF contract relax techniques. I'm going to ask you to contract this muscle and at the same time it can maximally fatigue the muscle fibre and let it stimulate the nerve receptor so that the nerve reflex relax the muscle. The muscle located \_\_\_\_\_ major action \_\_\_\_\_. I am going to do this for you. Please lay down on the massage table. First, let me elongate the muscle fibres to pain free zone like stretching. Now I'm going to ask you to contract the muscle against my resistance with maximal movement for 5-10 second. Repeat for 3 times. Lastly let me stretch this muscle for you and hold for 30 seconds. Are you okay? We finished this contract relax. This will help elongate muscle fibres and get rid of muscle spasms.

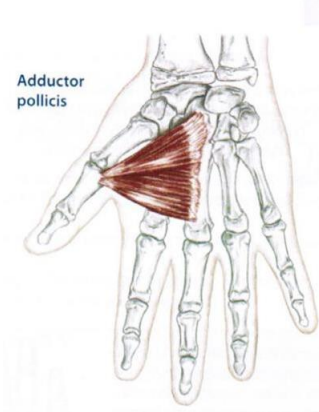
# Passive relax Rom

Next, I am going to do passive relax range of motion for your \_\_\_\_\_ joint. For the passive range of motion. You don't need to do anything. I will do it for you. Just keep at relax position. ROM can increase joint mobility. Do you feel ok? Any pain? Great.

Ok. We finished all the exercises and stretches. Do you understand? Do you have any questions before I leave? Thank you for your time. Let me wash my hands before I leave.

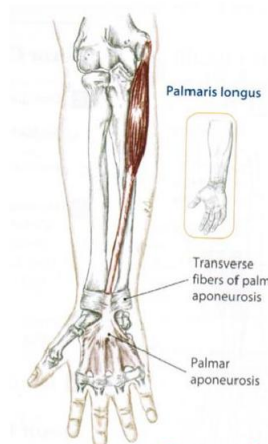
# 1

- Stretch - Adductor pollicis
- Isometric - Palmaris Longus
- Isotonic - Flexor digitorum profundus
- Contract relax - Pronator Teres
- Passive relax rom - Wrist joint



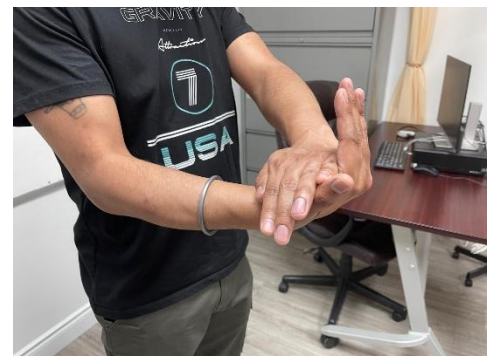
## Adductor Pollicis

- A** Adduct the thumb (carpometacarpal and metacarpophalangeal joints)
- Assist to flex the thumb (metacarpophalangeal joint)
- O** Capitate, second and third metacarpals
- I** Base of proximal phalanx of thumb
- N** Ulnar C8, T1

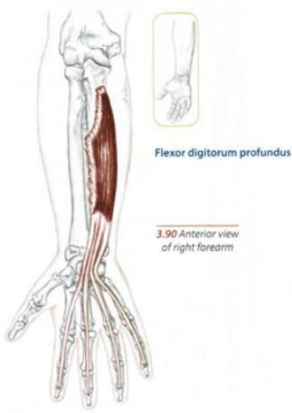


## Palmaris Longus

- A** Tense the palmar fascia
- Flex the wrist (radiocarpal joint)
- May assist to flex the elbow (humeroulnar joint)
- O** Common flexor tendon from medial epicondyle of humerus
- I** Flexor retinaculum and palmar aponeurosis
- N** Median C(6), 7, 8, T1



**palmaris** either of two muscles of the palm of the hand



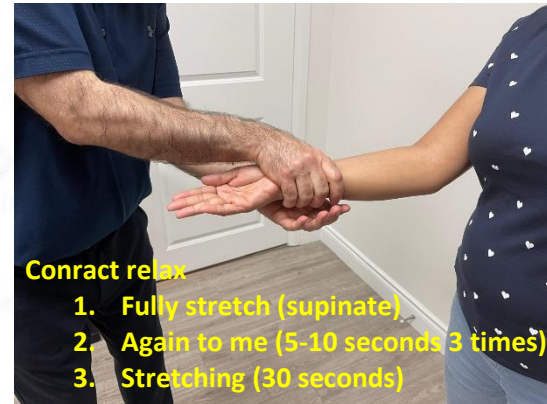
## Flexor Digitorum Profundus

- A** Flex the second through fifth fingers (metacarpophalangeal and distal interphalangeal joints)  
Assist to **flex** the wrist (radiocarpal joint)
- O** Anterior and medial surfaces of proximal three-quarters of ulna
- I** Bases of distal phalanges, palmar surface of second through fifth fingers
- N** First and second: Median C7, 8, T1  
Third and fourth: Ulnar C7, 8, T1



## Pronator Teres

- A** Pronate the forearm (radioulnar joints)  
Assist to **flex** the elbow (humeroulnar joint)
- O** Common flexor tendon from medial epicondyle of humerus and coronoid process of the ulna
- I** Middle of lateral surface of the radius
- N** Median C6, 7

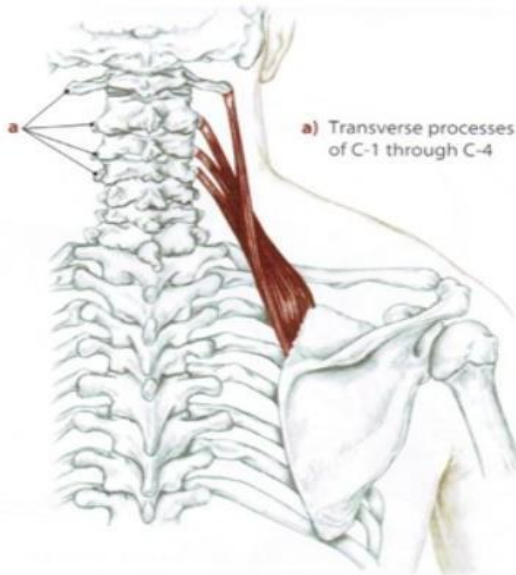


## Passive relax rom - Wrist joint



- Stretch - Levator scapula
- Isometric - Middle Scalene
- Isotonic - Upper Trapezius
- Contract relax - Infraspinatus
- Passive relax rom - Humeroulnar joint

# 2



## Levator scapula

### A Unilaterally:

**Elevate** the scapula (scapulothoracic joint)

**Downwardly rotate** the scapula (S/T joint)

**Laterally flex** the head and neck

**Rotate** the head and neck to the same side

### Bilaterally:

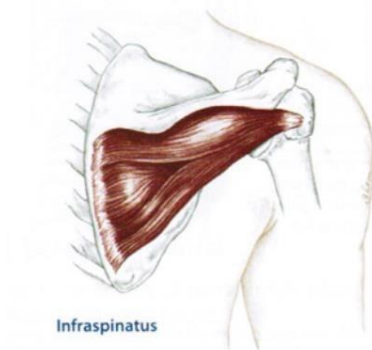
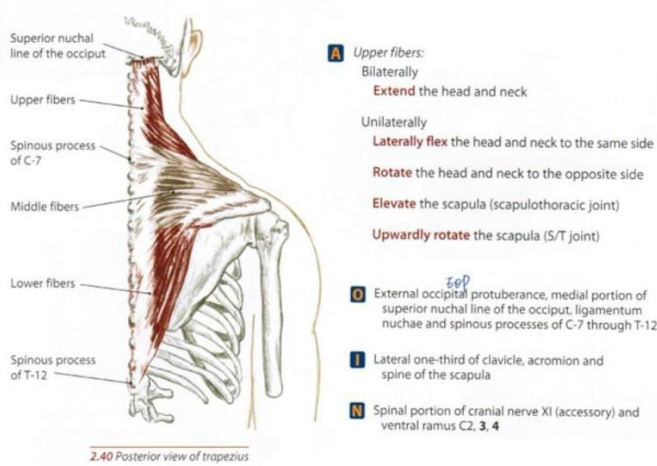
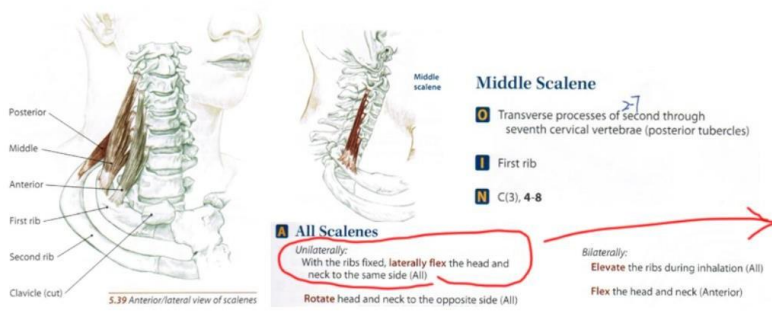
**Extend** the head and neck

**O** Transverse processes of first through fourth cervical vertebrae <sup>C1-4.</sup>

**I** Medial border of scapula, between superior angle and superior portion of spine of scapula

**N** Cervical 3, 4, and Dorsal scapular C4, 5



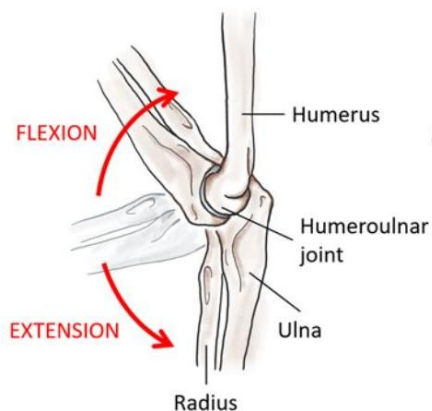


### Infraspinatus

- A** Laterally rotate the shoulder (glenohumeral joint)
- A** Adduct the shoulder (G/H joint)
- A** Stabilize the head of humerus in glenoid cavity
- O** Infraspinous fossa of the scapula
- I** Greater tubercle of the humerus
- N** Suprascapular C(4), 5, 6



1. fully stretch
2. lateral rotate again me 5 - 10 seconds 3 times
3. stretch for 30 seconds



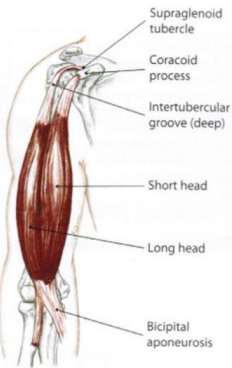
Humeroulnar joint  
and Humeroradius joint's movement  
only flexion and extension.

Radiusulnar joint's movement is  
supination and pronation

# 3

Stretch -Biceps brachii  
 Isometric - Triceps Brachii  
 Isotonic - Brachioradialis  
 Contract relax -brachialis  
 Passive relax rom - Proximal Radioulnar joint

## Biceps Brachii



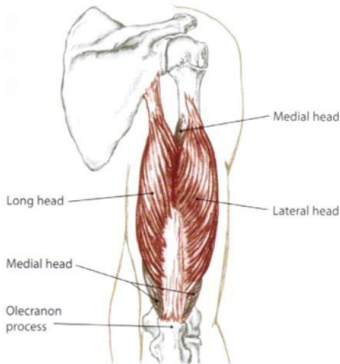
- A** Flex the elbow (humeroulnar joint)
- S**upinate the forearm (radioulnar joints)
- F**lex the shoulder (glenohumeral joint)
- O** Short head:  
Coracoid process of scapula
- Long head:  
Supraglenoid tubercle of scapula
- I** Tuberosity of the radius and aponeurosis of the biceps brachii
- N** Musculocutaneous C5, 6



## Triceps Brachii



The triceps brachii is the only muscle located on the posterior arm. Creating extension at the elbow and shoulder, it is an antagonist at both these joints to the biceps brachii.



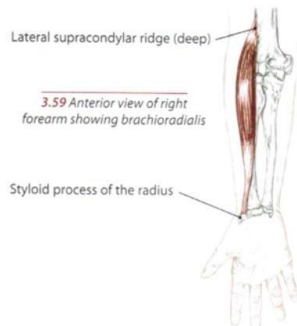
- A** All heads:  
Extend the elbow (humeroulnar joint)
- Long head:  
Extend the shoulder (glenohumeral joint)
- Adduct the shoulder (G/H joint)
- O** Long head:  
Infraglenoid tubercle of the scapula
- Lateral head:  
Posterior surface of proximal half of the humerus
- Medial head:  
Posterior surface of distal half of the humerus
- I** Olecranon process of the ulna
- N** Radial C6, 7, 8, T1



## Brachioradialis

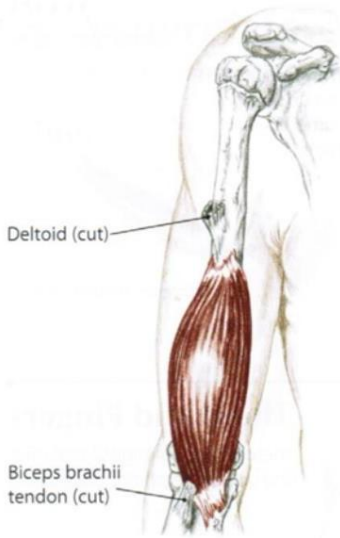


The brachioradialis is superficial on the lateral side of the forearm. It has a long, oval belly which forms a



- A** Flex the elbow (humeroulnar joint)
- Assist to **pronate** and **supinate** the forearm when these movements are resisted
- O** Proximal two-thirds of the lateral supracondylar ridge of humerus
- I** Styloid process of radius
- N** Radial C5, 6





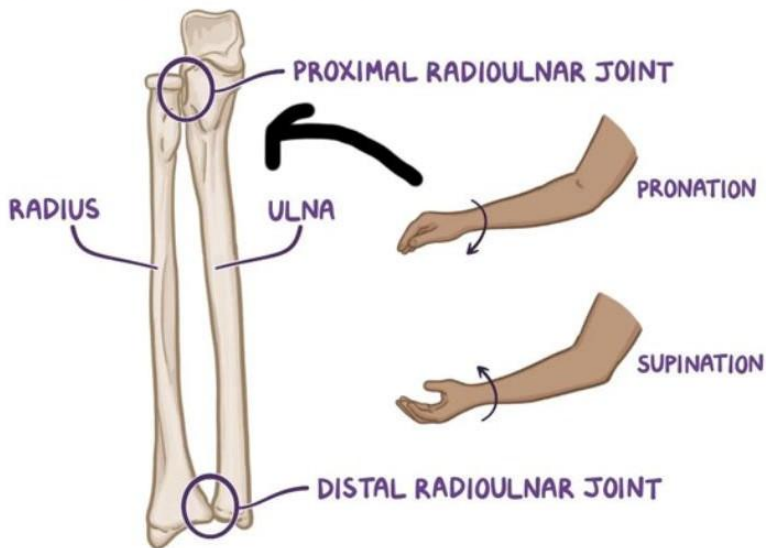
## Brachialis

The brachialis is a strong elbow flexor that lies deep to the biceps brachii (p. 95) on the anterior arm. It has a flat yet thick belly

- A** Flex the elbow (humeroulnar joint)
- O** Distal half of anterior surface of humerus
- I** Tuberosity and coronoid process of ulna
- N** Musculocutaneous, small branch from radial C5, 6



## RADIOULNAR JOINTS



# 4

Stretch -Iliopsoas

Isometric - Q.L

Isotonic - External oblique

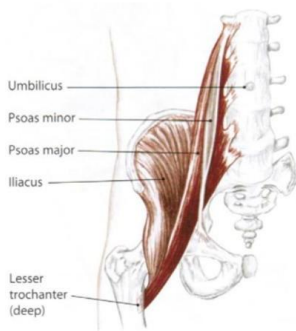
Contract relax -Vastus Intermedius

Passive relax rom - Tibiofemoral Joint

## Iliopsoas

pvo  
Psoas Major & Iliacus

The iliacus and psoas major, together called the iliopsoas, are important hip flexors and low back stabilizers



## Psoas Major

- A** With the origin fixed:  
Flex the hip (coxal joint)
- May **laterally rotate** the hip (coxal joint)
- With the insertion fixed:  
Flex the trunk toward the thigh
- Tilt pelvis anteriorly
- Unilaterally:  
Assist to **laterally flex** the lumbar spine
- O** Bodies and transverse processes of lumbar vertebrae
- I** Lesser trochanter
- N** Lumbar plexus L1, 2, 3, 4

## Iliacus

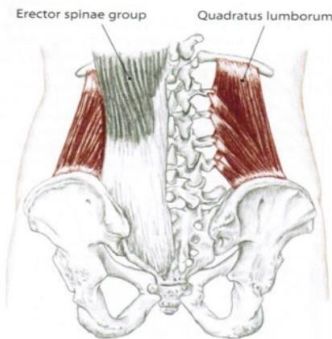
- O** Iliac fossa
- I** Lesser trochanter
- N** Femoral L(1), 2, 3, 4



## Quadratus Lumborum

pvo

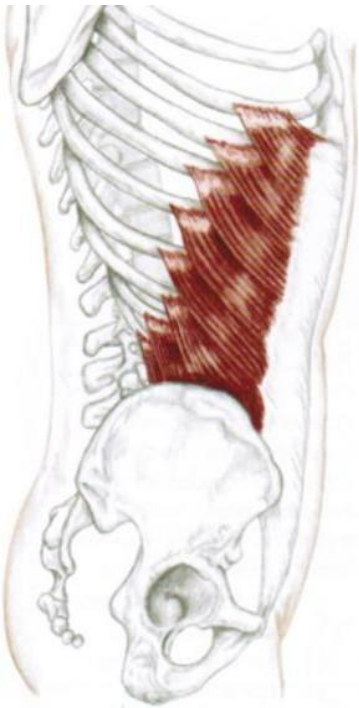
Although it would seem to be the deepest muscle of the low back, the quadratus lumborum is, strangely enough, the deepest muscle of the abdomen



4.91 Posterior view, erector spinae group removed on right side

- A** Unilaterally:  
**Laterally tilt** (elevate) the pelvis
- Laterally flex** the vertebral column to the same side
- Assist to **extend** the vertebral column
- Bilaterally:  
**Fix** the last rib during forced inhalation and exhalation
- O** Posterior iliac crest
- I** Last rib and transverse processes of first through fourth lumbar vertebrae
- N** Lumbar plexus T12, L1, 2, 3





## External Oblique

**A** *Unilaterally:*  
**Laterally flex** vertebral column  
to the same side

**Rotate** vertebral column  
to the opposite side

*Bilaterally:*

**Flex** the vertebral column

**Compress** abdominal contents

**O** External surfaces of fifth to twelfth ribs

**I** Anterior part of the iliac crest,  
abdominal aponeurosis to linea alba

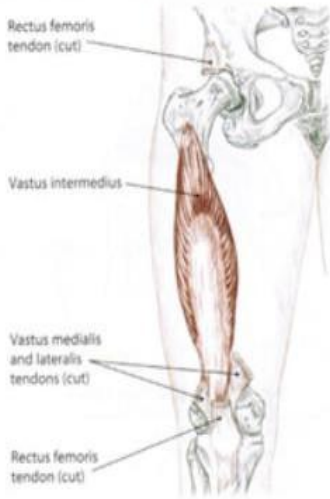
**N** (T5, 6), T7-11, T12



# Quadriceps Femoris Group



*Rectus Femoris*  
*Vastus Medialis*  
*Vastus Lateralis*  
*Vastus Intermedius*



6.56 Anterior view of right hip and thigh

**A** All:  
**Extend** the knee (tibiofemoral joint)

*Rectus Femoris:*  
**Flex** the hip (coxal joint)

**O** *Rectus Femoris:*  
Anterior inferior iliac spine (AIIS)

*Vastus Medialis:*  
Medial lip of linea aspera

*Vastus Lateralis:*  
Lateral lip of linea aspera, gluteal tuberosity  
and greater trochanter

*Vastus Intermedius:*  
Anterior and lateral shaft of the femur

**I** Tibial tuberosity (via the patella and  
patellar ligament)

**N** Femoral L2, 3, 4



# Knee

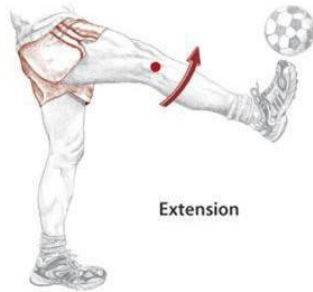
(tibiofemoral joint)



Flexion



Lateral rotation  
of flexed knee  
(right knee)



Extension



Medial rotation  
of flexed knee  
(right knee)

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TGB, p.39

tibiofemoral joint has 4 movement, flexion, extension, lateral rotation and internal rotation when flexed knee

# 5

- Stretch -Iliocostalis
- Isometric -biceps femoris
- Isotonic - Gluteus Maximus
- Contract relax -Piriformis
- Passive relax rom - Talocrural joint

## Erector Spinae Group

Spinalis  
Longissimus  
Iliocostalis

Iliocostalis

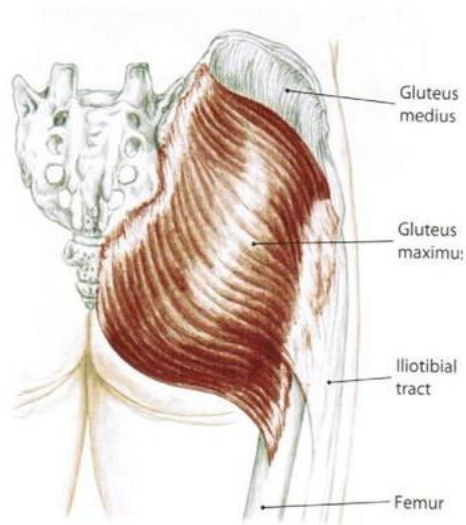


## Erector Spinae Group

- A** Unilaterally:  
**Laterally flex** vertebral column to the same side
- Bilaterally:**  
**Extend** the vertebral column
- O** Common tendon (thoracolumbar aponeurosis) that attaches to the posterior surface of sacrum, iliac crest, spinous processes of the lumbar and last two thoracic vertebrae
- I** Various attachments at the posterior ribs, spinous and transverse processes of thoracic and cervical vertebrae and mastoid process of temporal bone
- N** Spinal





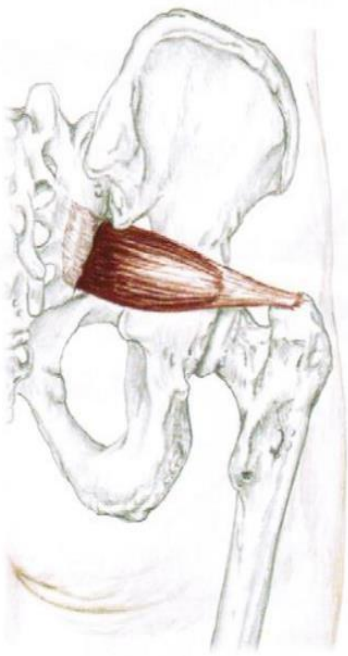


6.79 Posterior view of right buttock

## Gluteus Maximus

- A** All fibers:  
  - Extend the hip (coxal joint)
  - Laterally rotate the hip (coxal joint)
  - Abduct the hip (coxal joint)
- Lower fibers:  
  - Adduct the hip (coxal joint)
- O** Coccyx, edge of sacrum, posterior iliac crest, sacrotuberous and sacrospinous ligaments
- I** <sup>IT band.</sup> Iliotibial tract (upper fibers) and gluteal tuberosity (lower fibers)
- N** Inferior gluteal L5, S1, 2





Piriformis

6.114

## Piriformis

**A** Laterally rotate the hip (coxal joint)

Abduct the hip when the hip is flexed

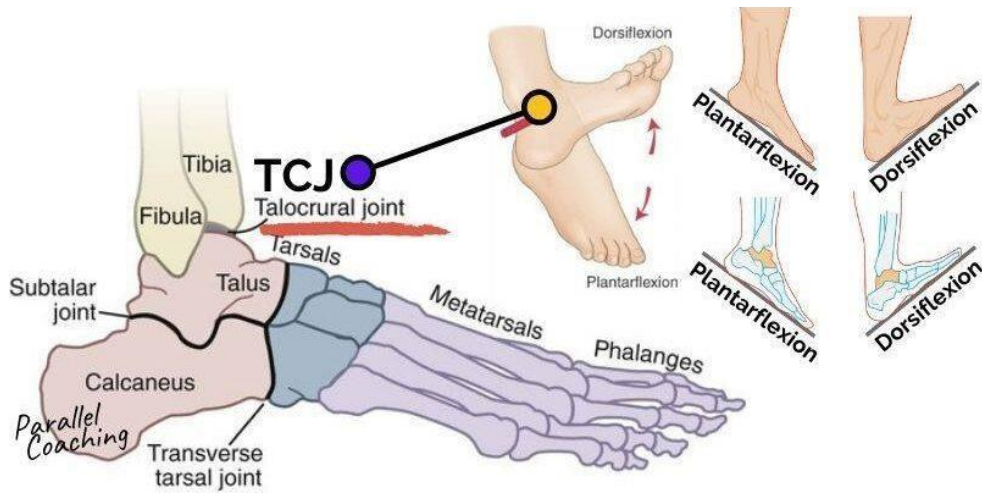
**O** Anterior surface of sacrum

**I** Superior aspect of greater trochanter

**N** Sacral plexus L(5), S1, 2

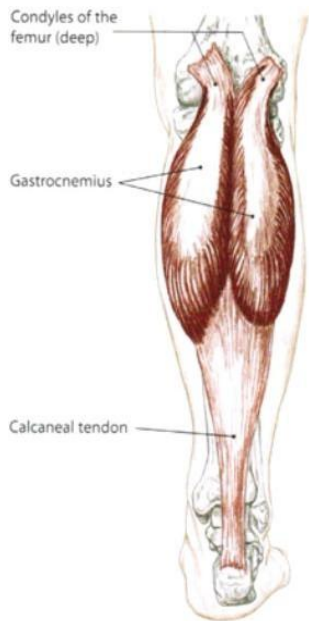


# Talocrural joint movement



# 6

Stretch - Gastrocnemius  
Isometric - Peroneus longus  
Isotonic - Tibialis Anterior  
Contract relax - Soleus  
Passive relax rom - Subtalar joint



## Gastrocnemius

**A** Flex the knee (tibiofemoral joint)

Plantar flex the ankle (talocrural joint)

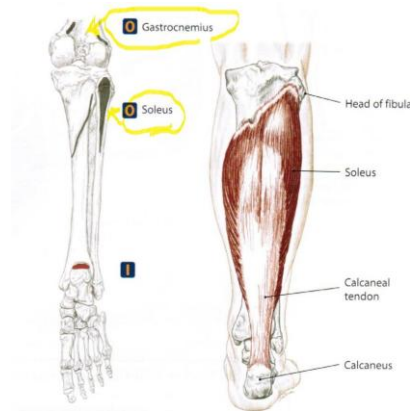
**O** Condyles of the femur, posterior surfaces

**I** Calcaneus via calcaneal tendon

**N** Tibial S1, 2



\* Gastrocnemius is flex the knee and plantar flex the ankle, but soleus is only plantar flex the ankle.



### Soleus

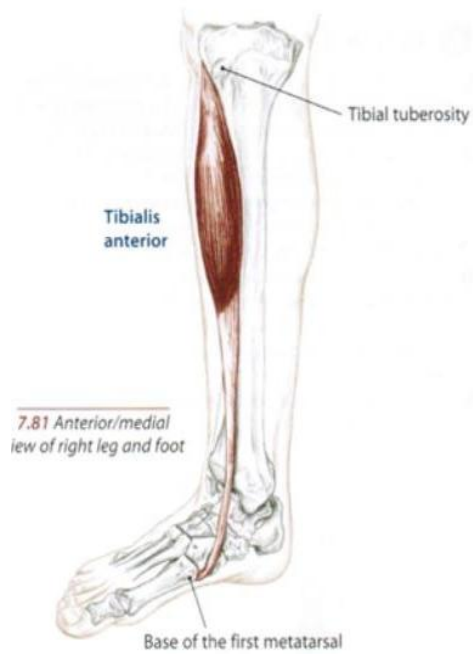
- A** Plantar flex the ankle (talocrural joint)
- O** Soleal line; proximal, posterior surface of tibia and posterior aspect of head of fibula
- I** Calcaneus via calcaneal tendon
- N** Tibial L5, S1, 2



### Peroneus Longus

- A** Evert the foot
- Assist to **plantar flex** the ankle (talocrural joint)
- O** Head of fibula and proximal two-thirds of lateral fibula
- I** Base of the first metatarsal and medial cuneiform
- N** Superficial peroneal L4, 5, S1

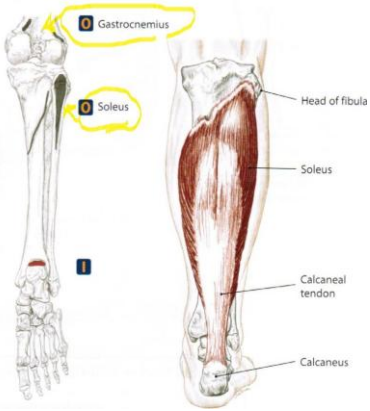




## Tibialis Anterior

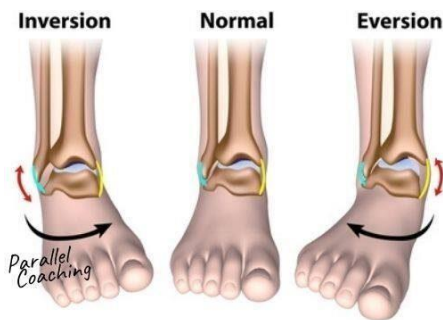
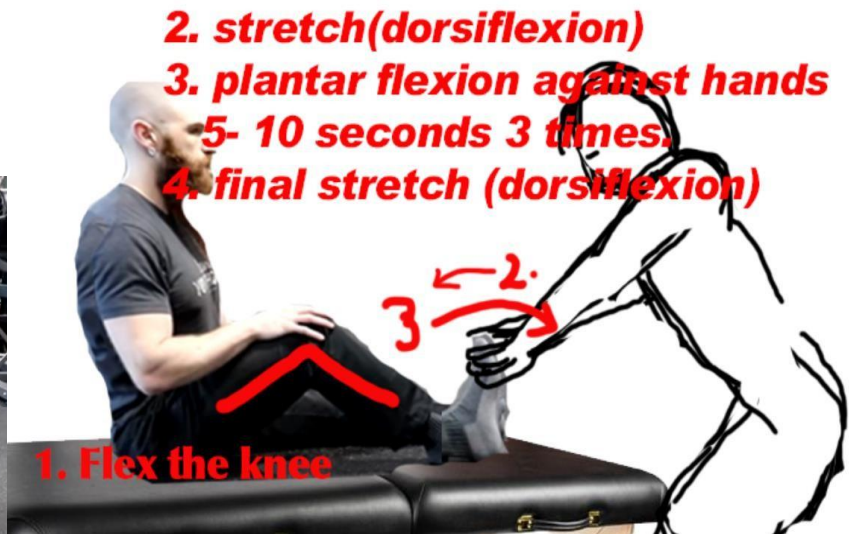
- A** **Invert** the foot  
**Dorsiflex** the ankle (talocrural joint)
- O** Lateral condyle of tibia; proximal, lateral surface of tibia and interosseous membrane
- I** Medial cuneiform and base of the first metatarsal
- N** Deep peroneal L4, 5, S1





## Soleus

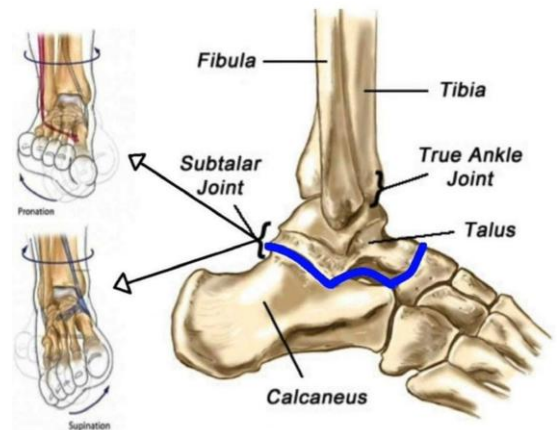
- A** Plantar flex the ankle (talocrural joint)
- O** Soleal line; proximal, posterior surface of tibia and posterior aspect of head of fibula
- I** Calcaneus via calcaneal tendon
- N** Tibial L5, S1, 2



eversion

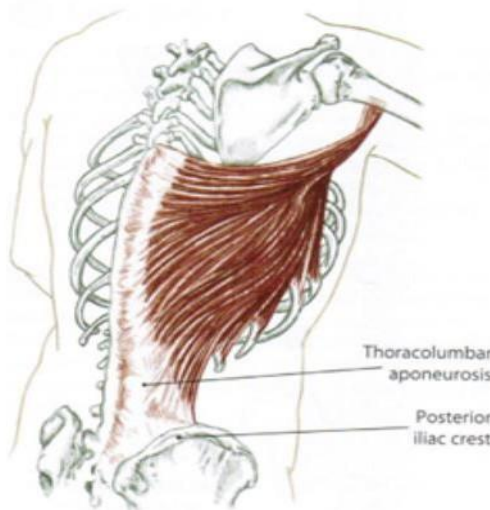
Inversion

## The Subtalar Joint



# 7

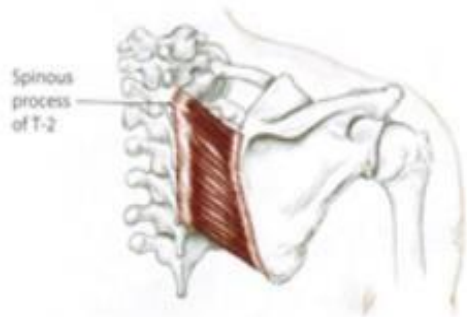
- Stretch - latissimus Dorsi
- Isometric - Rhomboids
- Isotonic - Supraspinatus
- Contract relax - pectoralis major (clavicular fibers)
- Passive relax rom - Thoracoscapular joint



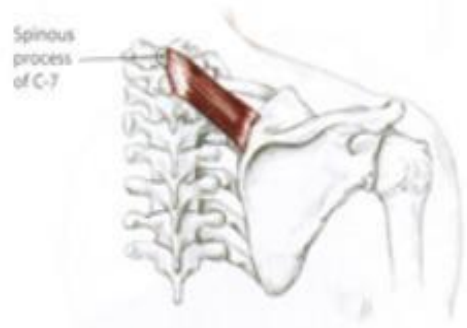
## Latissimus Dorsi

- 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 aponeurosis and posterior iliac crest
- I** Intertubercular groove of the humerus
- N** Thoracodorsal C6, 7, 8





2.72 Posterior view of rhomboid major



2.73 Posterior view of rhomboid minor

## Rhomboid Major and Minor

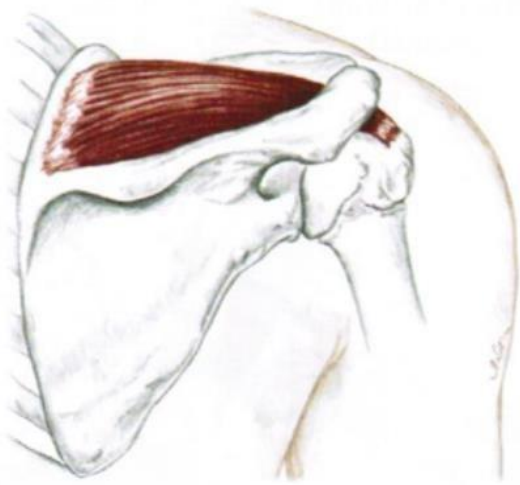
- A** **Adduct** the scapula (scapulothoracic joint)
- Elevate** the scapula (S/T joint)
- Downwardly rotate** the scapula (S/T joint)

- O** *Major:*  
Spinous processes of T-2 to T-5
- Minor:*  
Spinous processes of C-7 and T-1

- I** *Major:*  
Medial border of the scapula between the spine of the scapula and inferior angle
- Minor:*  
Upper portion of medial border of the scapula, across from spine of the scapula

- N** Dorsal scapular C4, 5



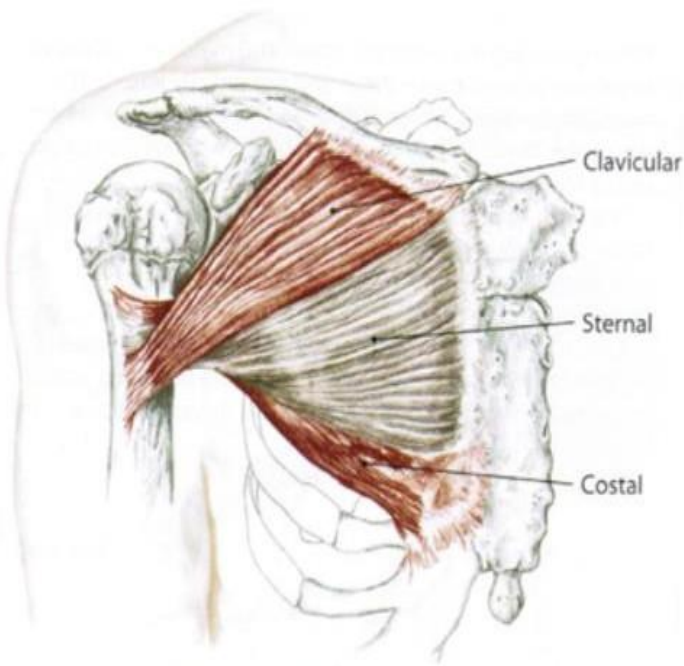


Supraspinatus

## Supraspinatus

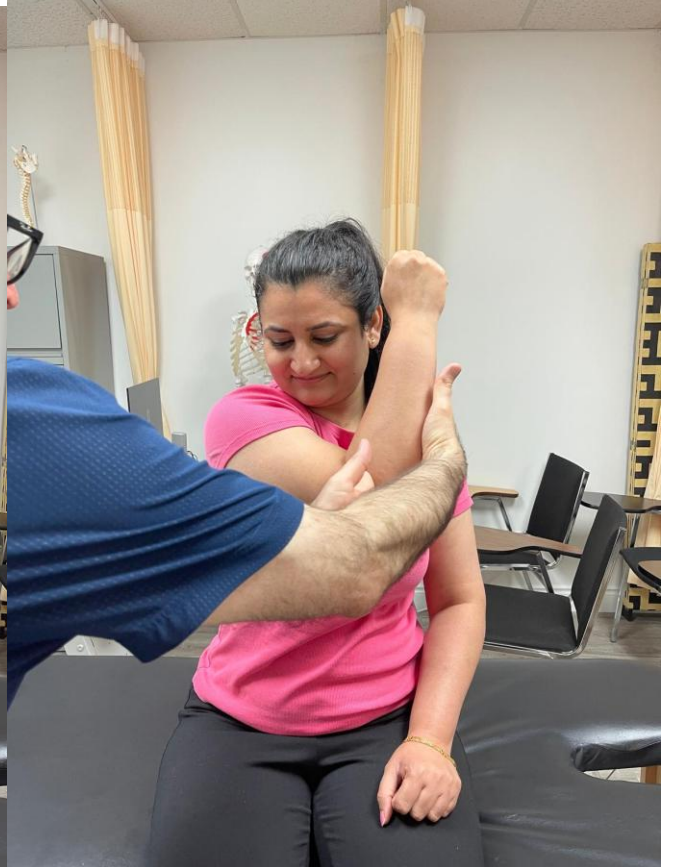
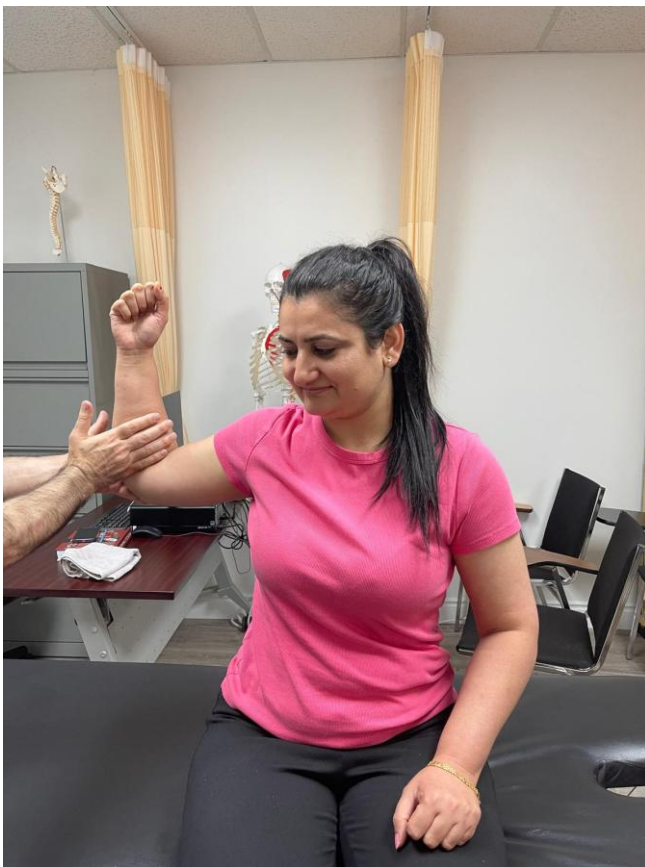
- A** Abduct the shoulder (glenohumeral joint)
- S**tabilize the head of humerus in glenoid cavity
- O** Supraspinous fossa of the scapula
- I** Greater tubercle of the humerus
- N** Suprascapular C4, 5, 6





2.88 Anterior view identifying the three segments of 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



# Passive relax rom - Thoracoscapular joint

Figure 3-34  
Scapular  
movements

