Appendicular muscular system

deceased.

plastinated when they die, as he has done.

January 23, 2005. *Global Health Nexus* recently had an opportunity to ask Dr. von Hagens about his work and dissection as an educational model. Why do you think that is?

Dr. von Hagens: First of all, change of any kind is often resisted. In anatomy, the teaching power of serial body slices in all three planes in combination with high-quality, dissected plastinates is not easily imagined by teachers who have no experience using them. Moreover, since head and extremity slices sometimes show structures that are difficult to identify, this could make the teacher uncomfortable. Also, plastinates of high quality are not easily available commercially.

GHN: Beyond the educational efficiencies that plastinates can create, are there other benefits to dental students learning anatomy using plastinated cadavers exclusively?

Dr. von Hagens: During dissection courses, many

A plastinate of a real human body posed as if playing basketball.

Muscles that act on the pectoral girdle

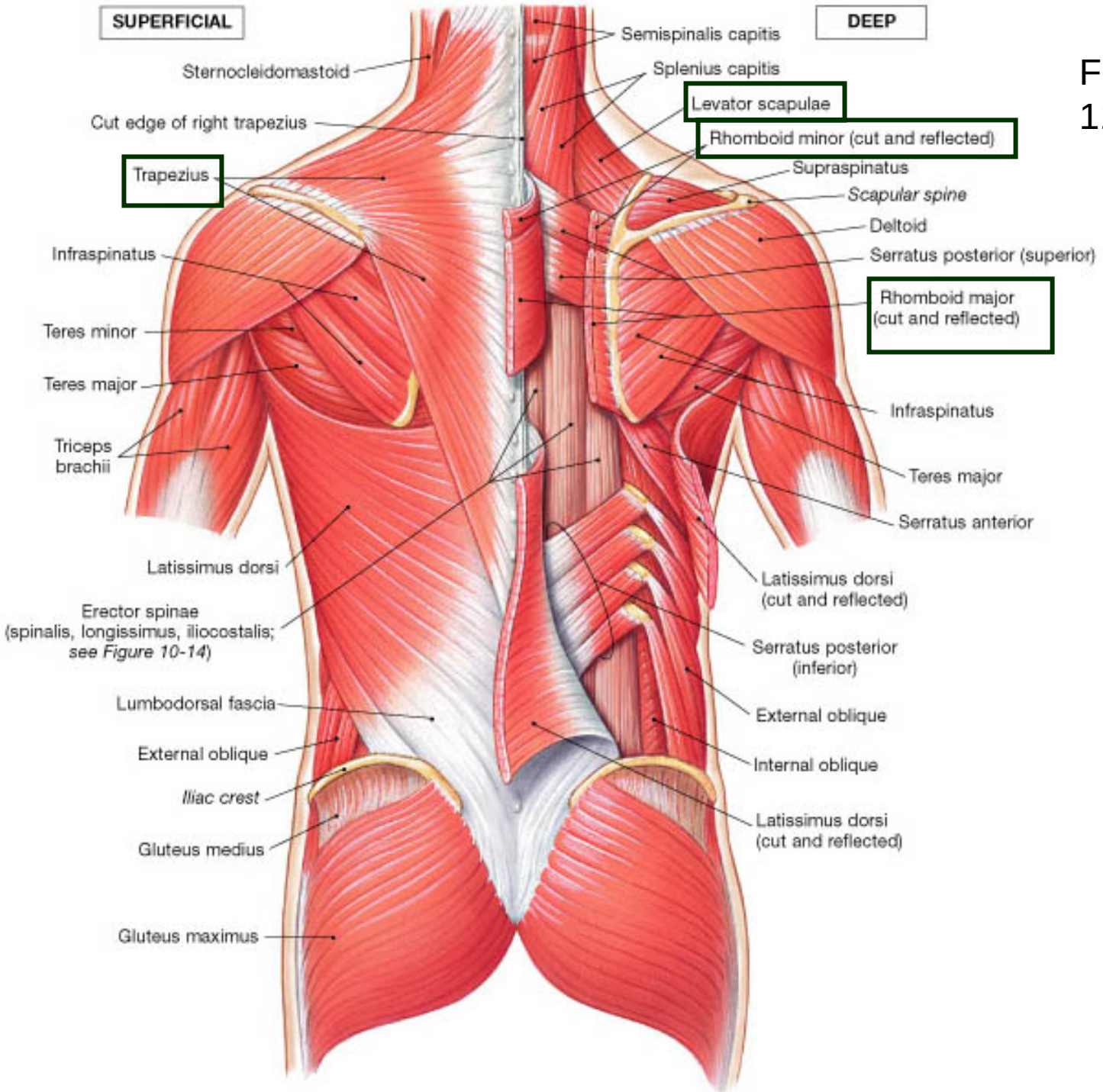
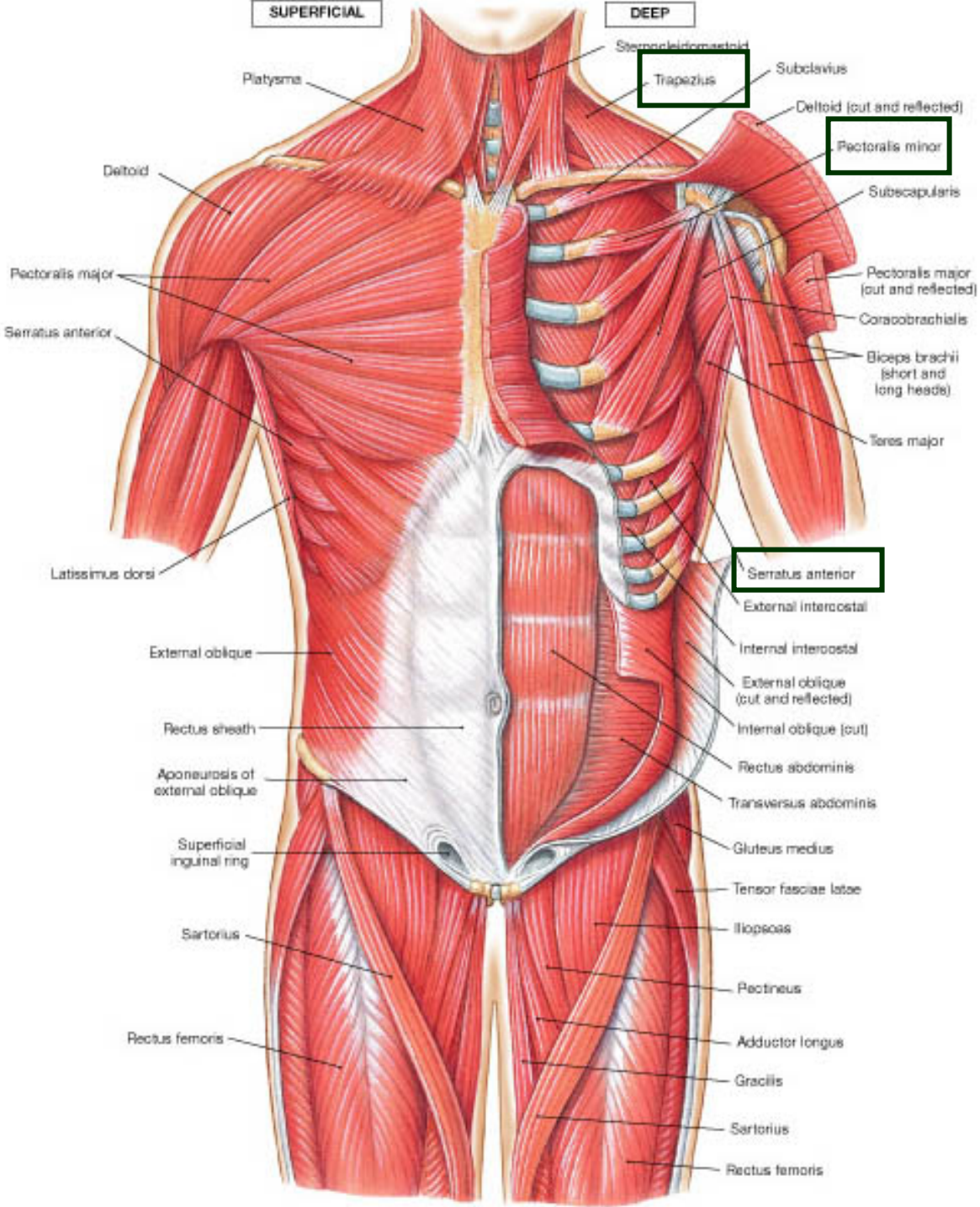

SUPERFICIAL
DEEP
Sternocleidomastoid
Cut edge of right trapezius
Trapezius
Infraspinatus
Teres minor
Teres major
Triceps brachii
Latissimus dorsi
Erector spinae (spinalis, longissimus, iliocostalis; see Figure 10-14)
Lumbodorsal fascia
External oblique
Iliac crest
Gluteus medius
Gluteus maximus
Semispinalis capitis
Splenius capitis
Levator scapulae
Rhomboid minor (cut and reflected)
Supraspinatus
Scapular spine
Deltoid
Serratus posterior (superior)
Rhomboid major (cut and reflected)
Infraspinatus
Teres major
Serratus anterior
Latissimus dorsi (cut and reflected)
Serratus posterior (inferior)
External oblique
Internal oblique
Latissimus dorsi (cut and reflected)

Fig 11-1

Fig 11-4


SUPERFICIAL
DEEP
Platysma
Sternocleidomastoid
Trapezius
Subclavius
Deltoid (cut and reflected)
Pectoralis minor
Deltoid
Subscapularis
Pectoralis major
Pectoralis major (cut and reflected)
Serratus anterior
Coracobrachialis
Biceps brachii (short and long heads)
Teres major
Latissimus dorsi
Serratus anterior
External intercostal
External oblique
Internal intercostal
External oblique (cut and reflected)
Rectus sheath
Internal oblique (cut)
Rectus abdominis
Aponeurosis of external oblique
Transversus abdominis
Superficial inguinal ring
Gluteus medius
Tensor fasciae latae
Iliopsoas
Sartorius
Pectineus
Rectus femoris
Adductor longus
Gracilis
Sartorius
Rectus femoris

Muscles that act on the arm

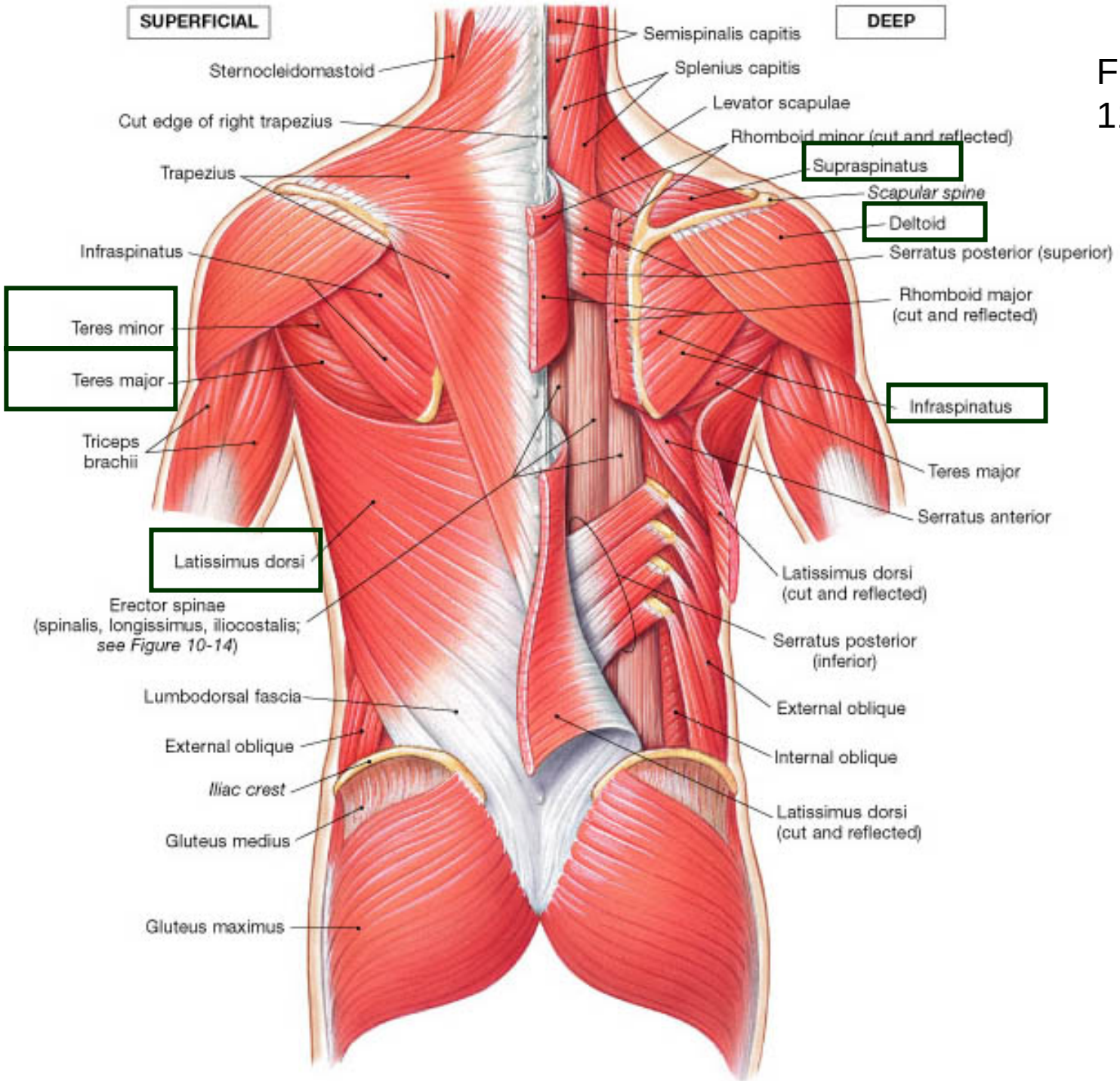
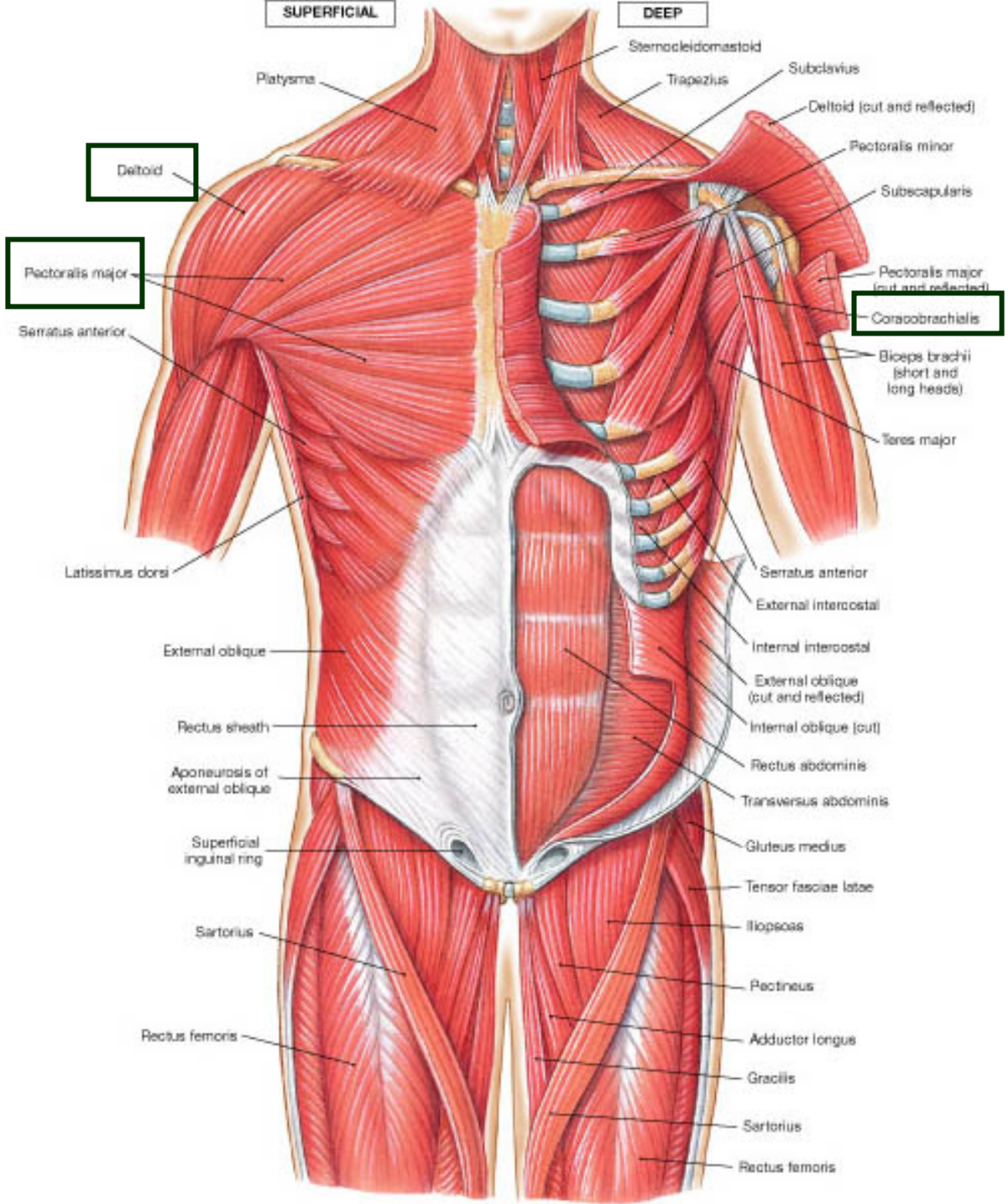

SUPERFICIAL
DEEP
Sternocleidomastoid
Cut edge of right trapezius
Trapezius
Infraspinatus
Teres minor
Teres major
Triceps brachii
Latissimus dorsi
Erector spinae (spinalis, longissimus, iliocostalis; see Figure 10-14)
Lumbodorsal fascia
External oblique
Iliac crest
Gluteus medius
Gluteus maximus
Semispinalis capitis
Splenius capitis
Levator scapulae
Rhomboid minor (cut and reflected)
Supraspinatus
Scapular spine
Deltoid
Serratus posterior (superior)
Rhomboid major (cut and reflected)
Infraspinatus
Teres major
Serratus anterior
Latissimus dorsi (cut and reflected)
Serratus posterior (inferior)
External oblique
Internal oblique
Latissimus dorsi (cut and reflected)

Fig 11-1

Fig 11-4


SUPERFICIAL
DEEP
Sternocleidomastoid
Platysma
Trapezius
Subclavius
Deltoid (cut and reflected)
Deltoid
Pectoralis minor
Subscapularis
Pectoralis major
Pectoralis major (cut and reflected)
Coracobrachialis
Serratus anterior
Biceps brachii (short and long heads)
Teres major
Latissimus dorsi
Serratus anterior
External intercostal
External oblique
Internal intercostal
External oblique (cut and reflected)
Rectus sheath
Internal oblique (cut)
Rectus abdominis
Aponeurosis of external oblique
Transversus abdominis
Superficial inguinal ring
Gluteus medius
Tensor fasciae latae
Sartorius
Iliopsoas
Pectineus
Rectus femoris
Adductor longus
Gracilis
Sartorius
Rectus femoris

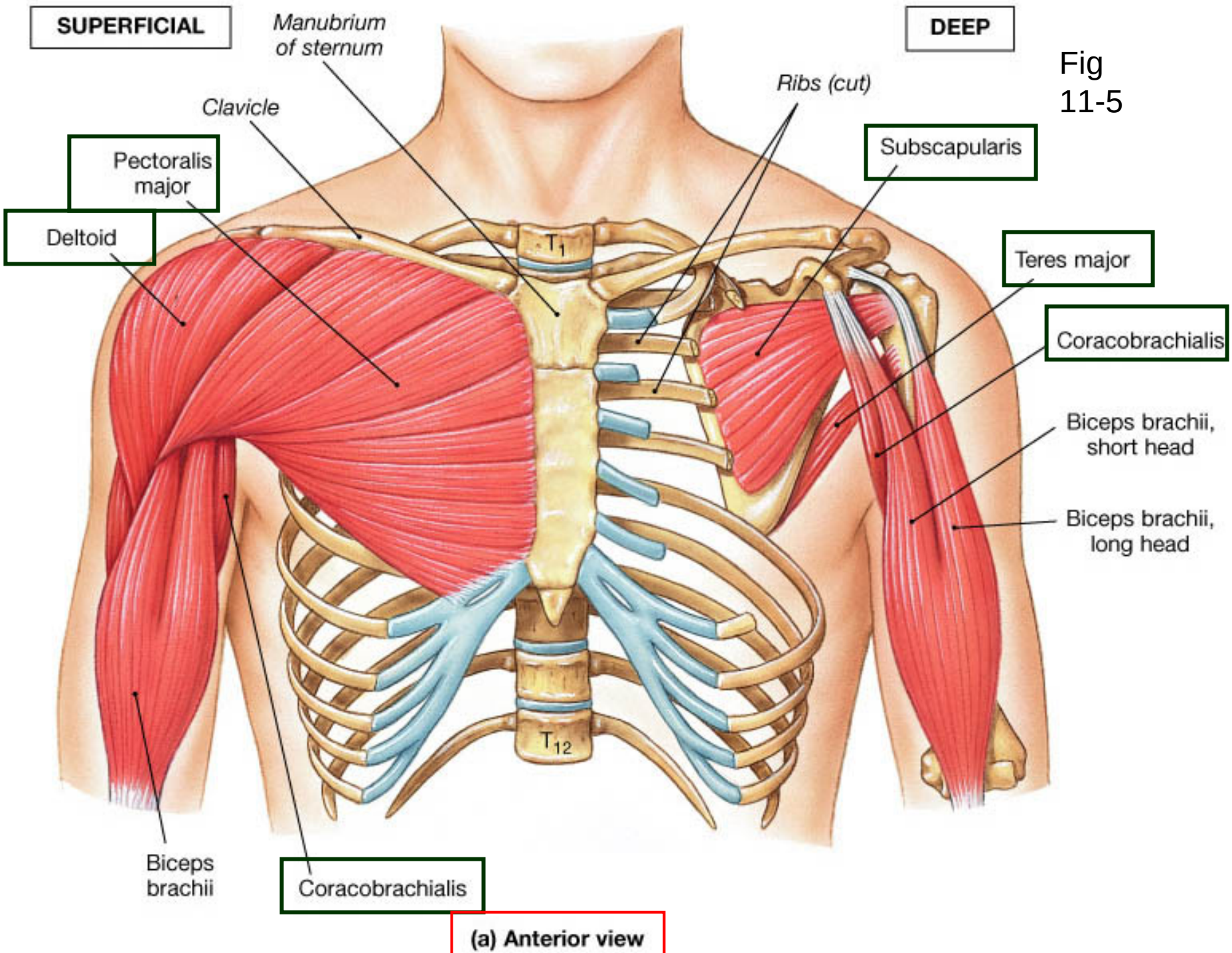
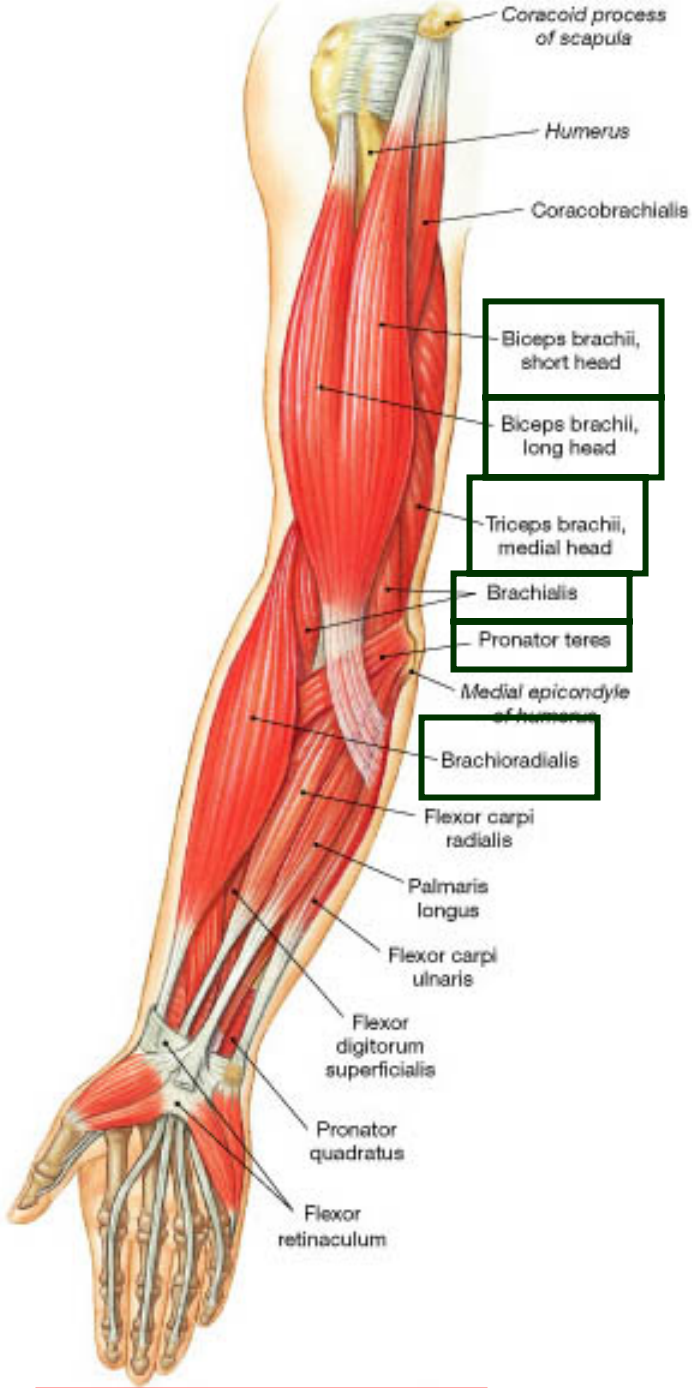

SUPERFICIAL
DEEP
Manubrium of sternum
Clavicle
Ribs (cut)
Pectoralis major
Deltoid
Subscapularis
Teres major
Coracobrachialis
Biceps brachii, short head
Biceps brachii, long head
T_1
T_{12}
Biceps brachii
Coracobrachialis
(a) Anterior view

Fig 11-5

Muscles that act on the forearm

Fig 11-6

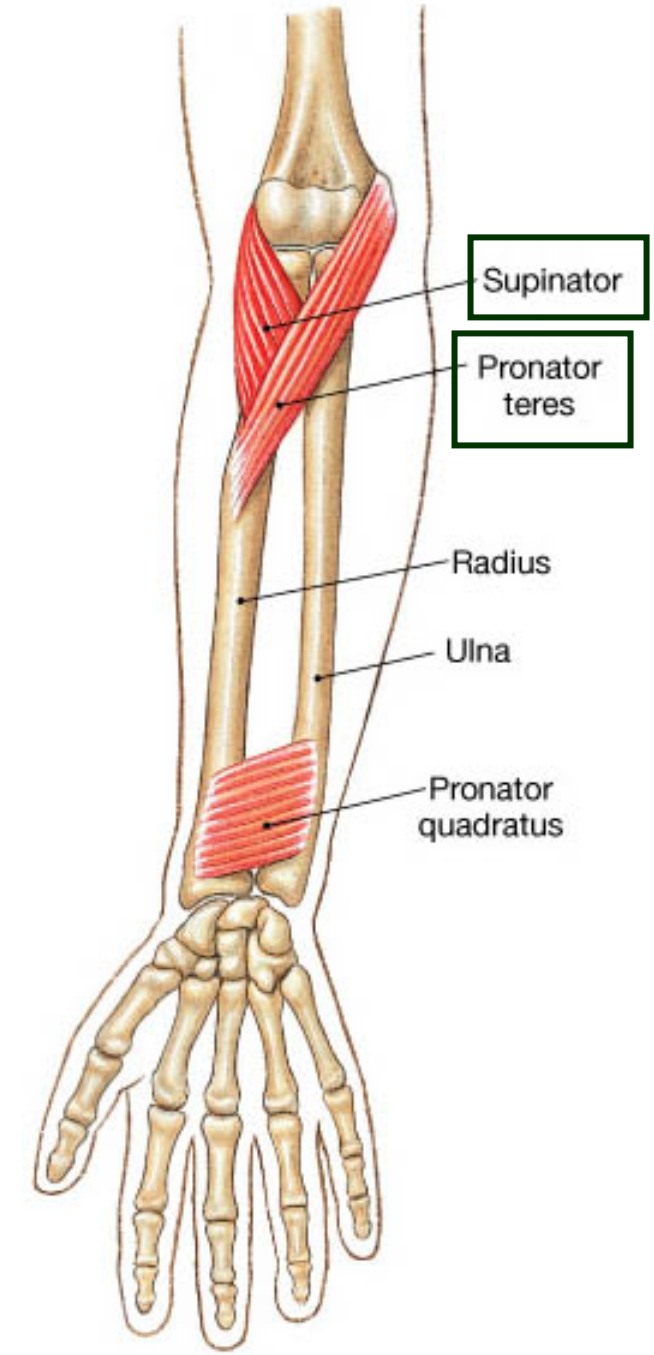


(b) Superficial muscles, anterior view

Fig 11-7

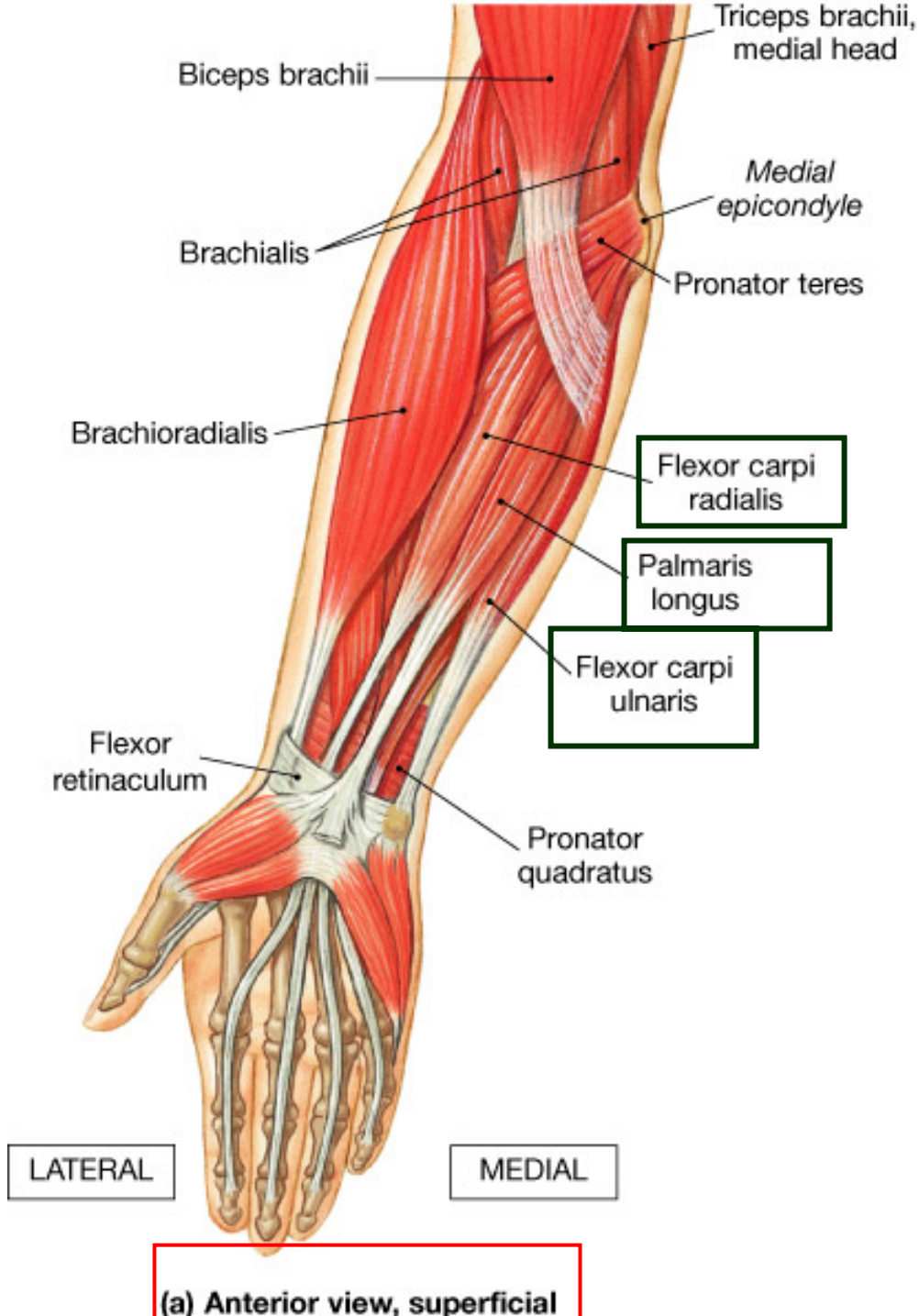
(b) Superficial muscles, posterior view

Fig 11-7



(f) Anterior view of forearm, deep muscles

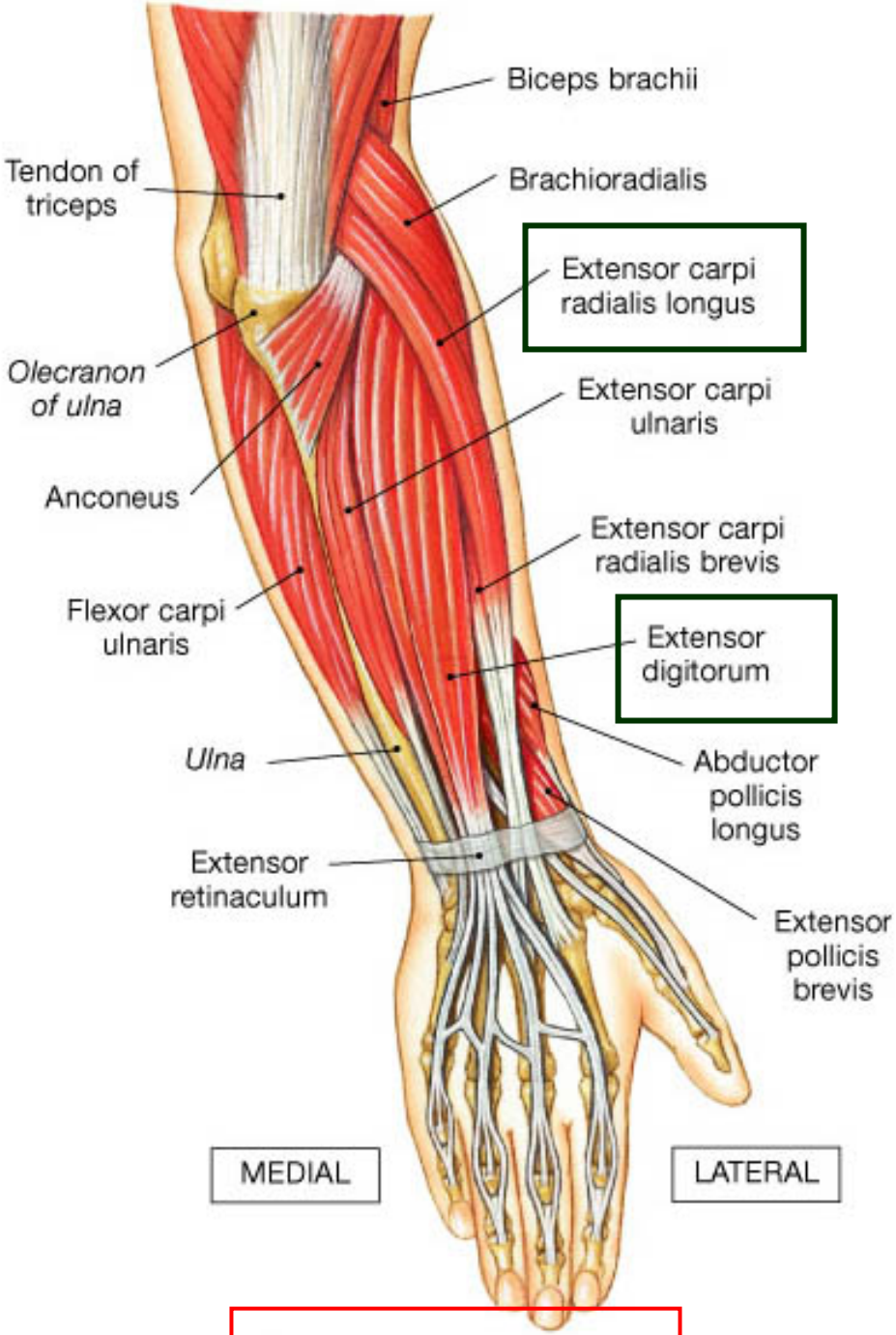
Muscles that act on the wrist/hand



(a) Anterior view, superficial

Fig 11-8

Fig 11-8

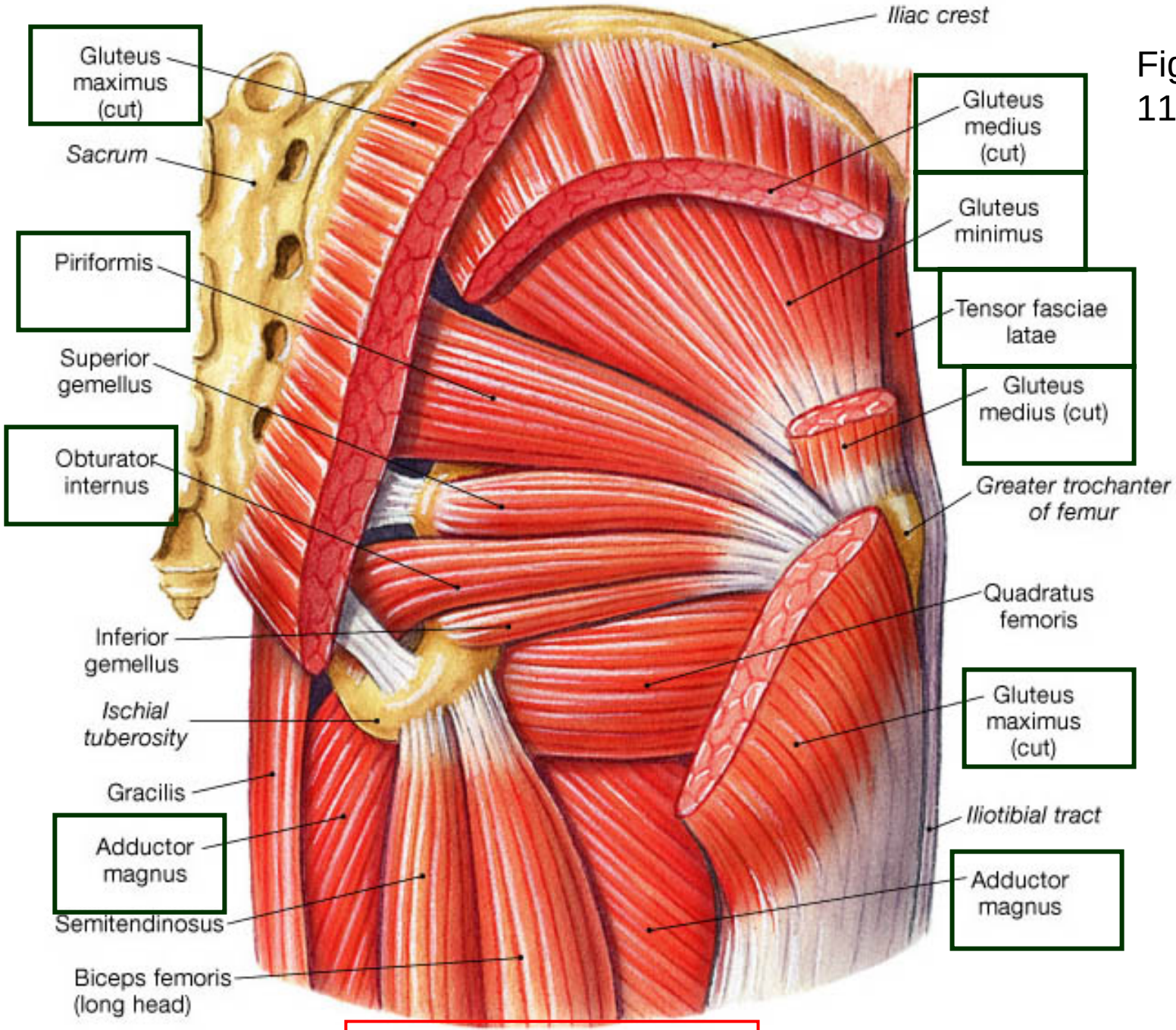


(d) Posterior view, superficial

Muscles that act on the thigh

- Iliosoas group-psoas major & iliacus

Fig 11-10



(a) Posterior view, deep muscles

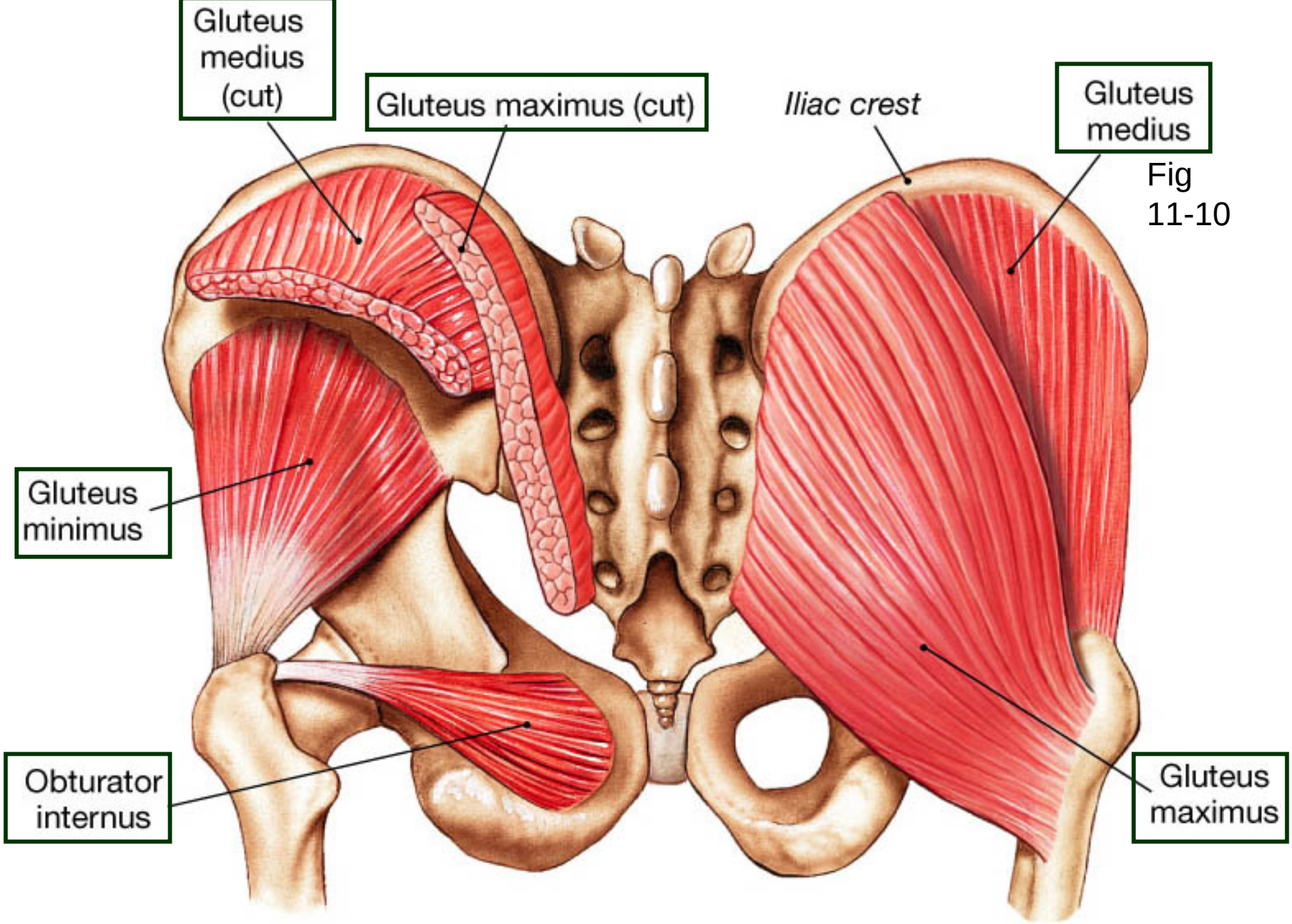
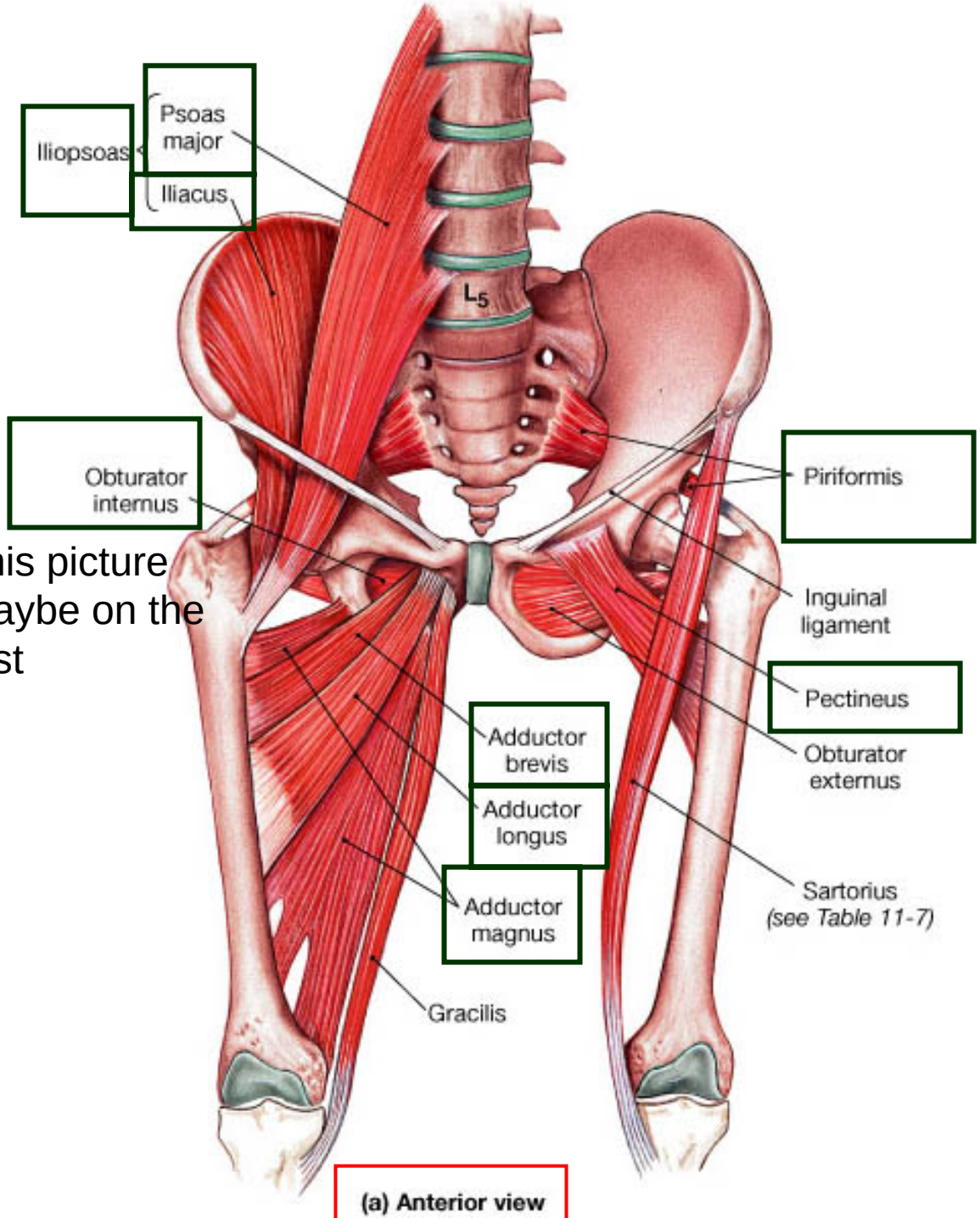


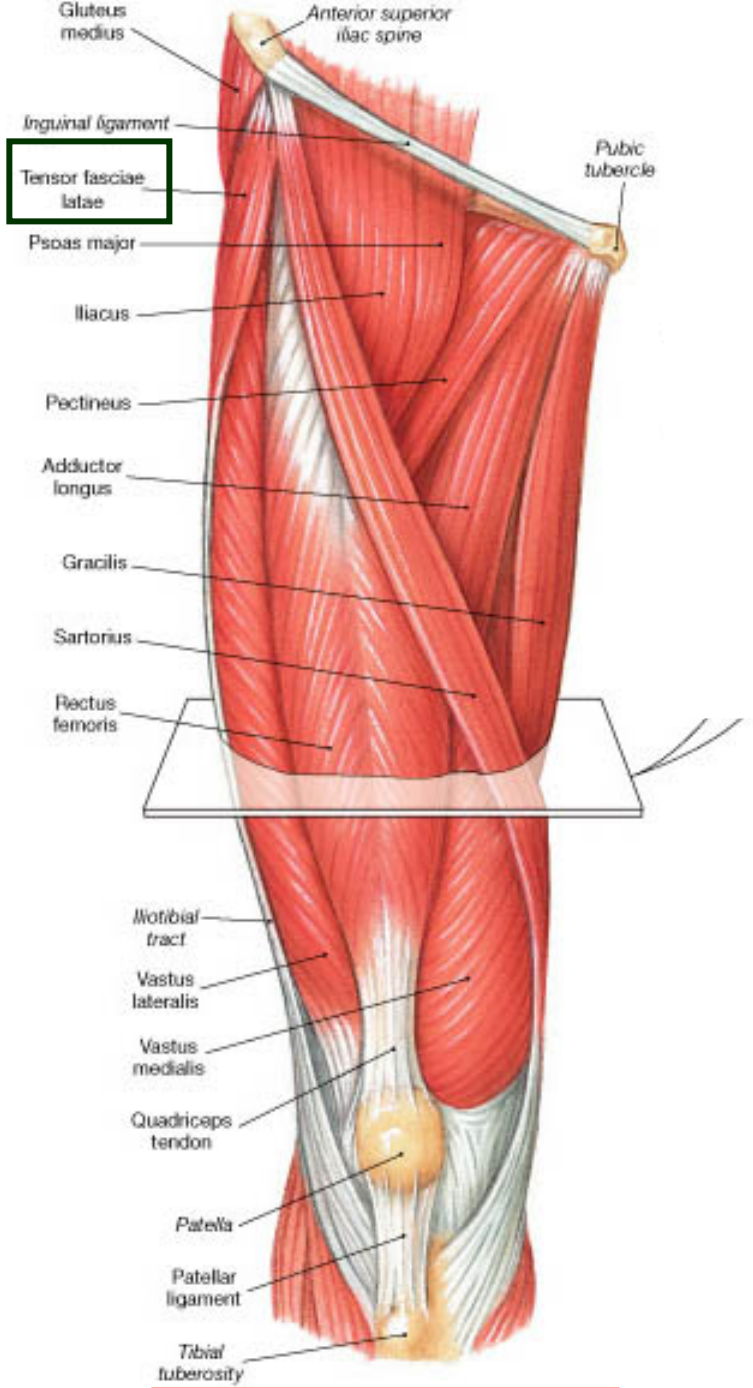
Fig 11-10

(c) Gluteal and lateral rotators, posterior view

Fig 11-11



This picture maybe on the test

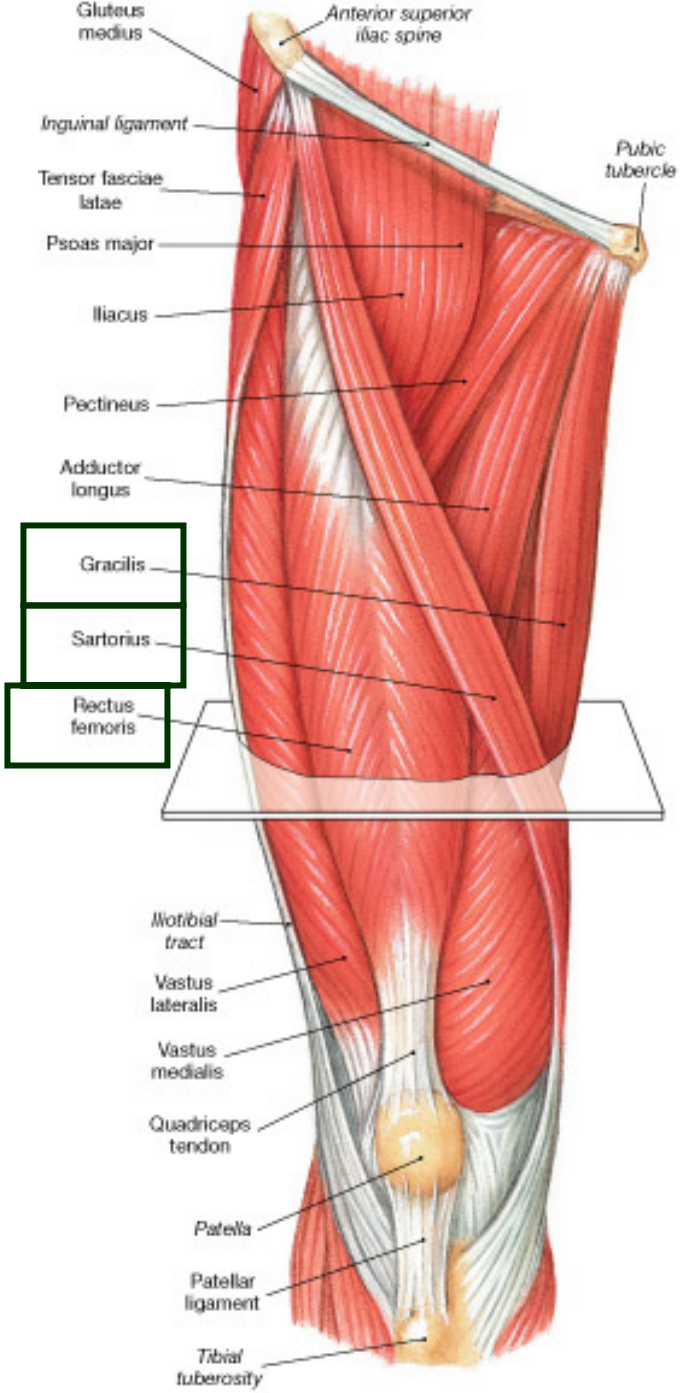


(a) Quadriceps and thigh muscles, anterior view

Fig 11-12

Muscles that act on the thigh & leg

- Hamstrings-semitendinosus, semimembranosus, & biceps femoris long head



(a) Quadriceps and thigh muscles, anterior view

Fig 11-12

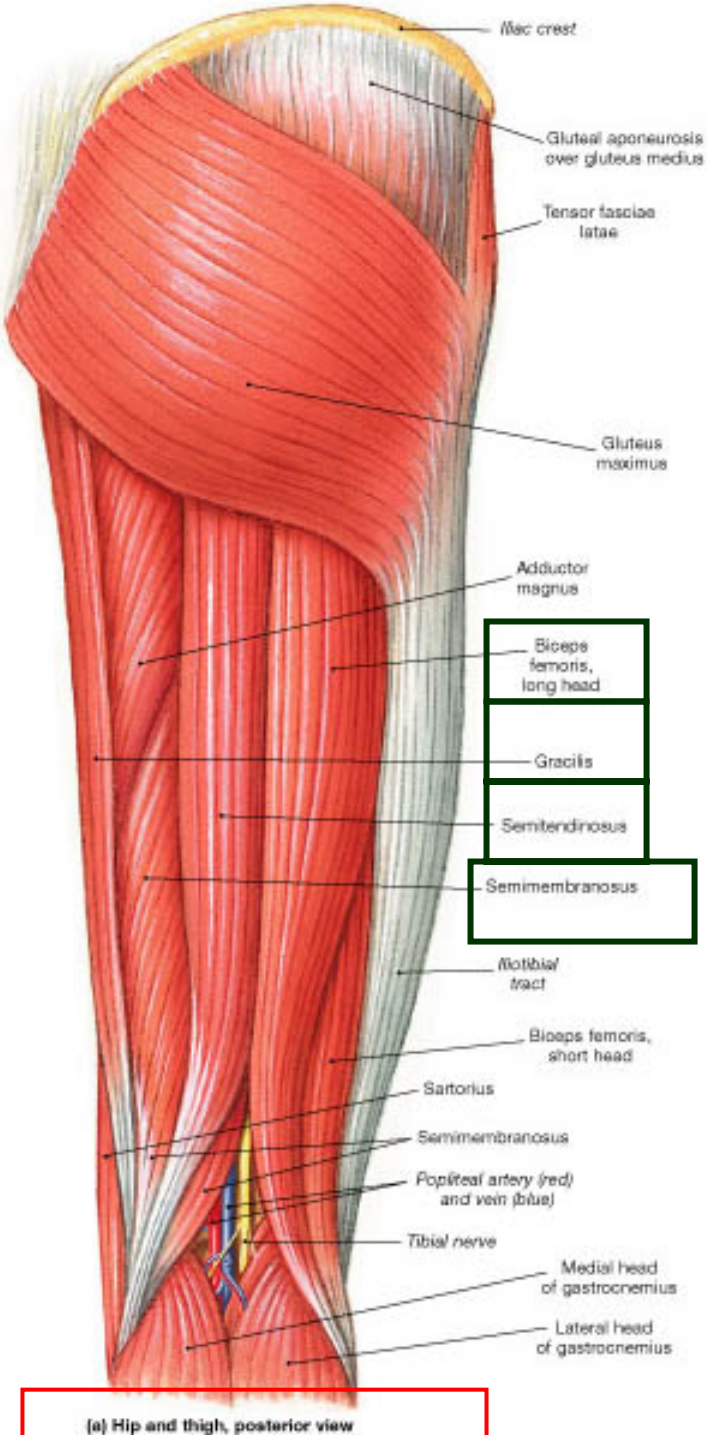
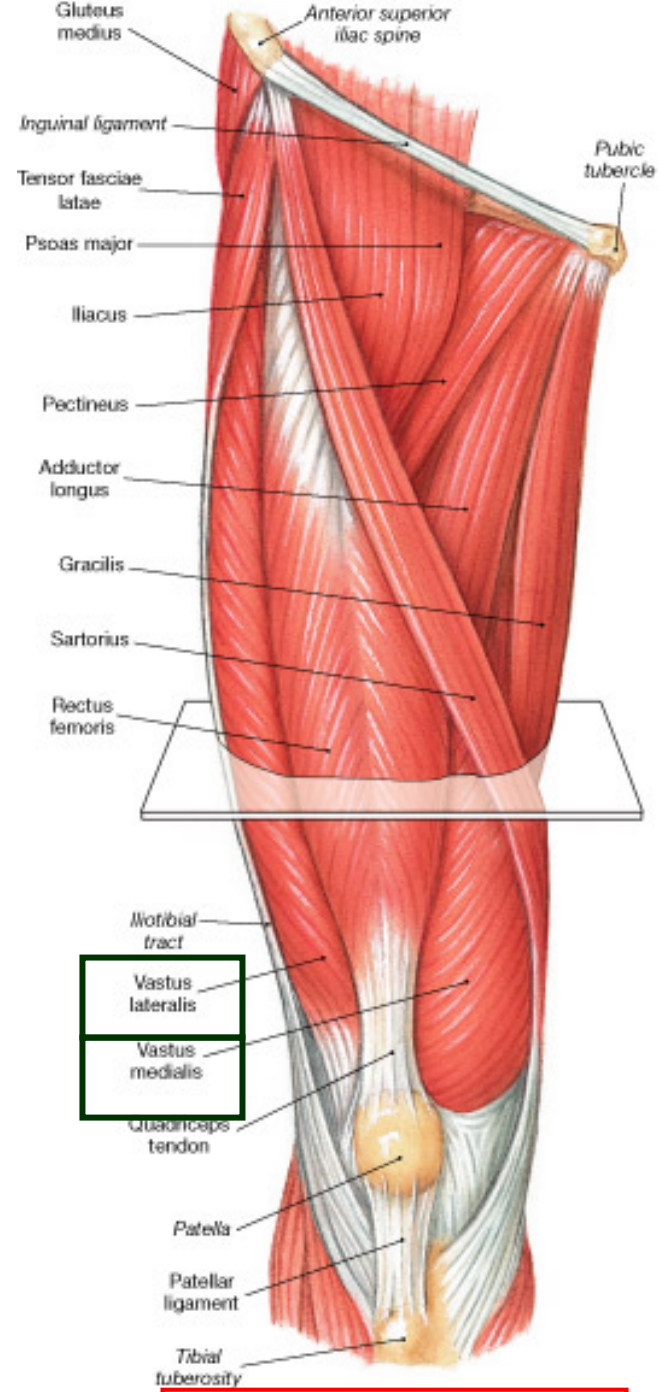

Iliac crest
Gluteal aponeurosis over gluteus medius
Tensor fasciae latae
Gluteus maximus
Adductor magnus
Biceps femoris, long head
Gracilis
Semitendinosus
Semimembranosus
Iliotibial tract
Biceps femoris, short head
Sartorius
Semimembranosus
Popliteal artery (red) and vein (blue)
Tibial nerve
Medial head of gastrocnemius
Lateral head of gastrocnemius
(a) Hip and thigh, posterior view

Fig 11-14

Muscles that act on the leg

- Quadriceps-rectus femoris, vastus medialis, vastus intermedius, & vastus lateralis

- The vastus intermedius is deep to the rectus femoris



(a) Quadriceps and thigh muscles, anterior view

Fig 11-12

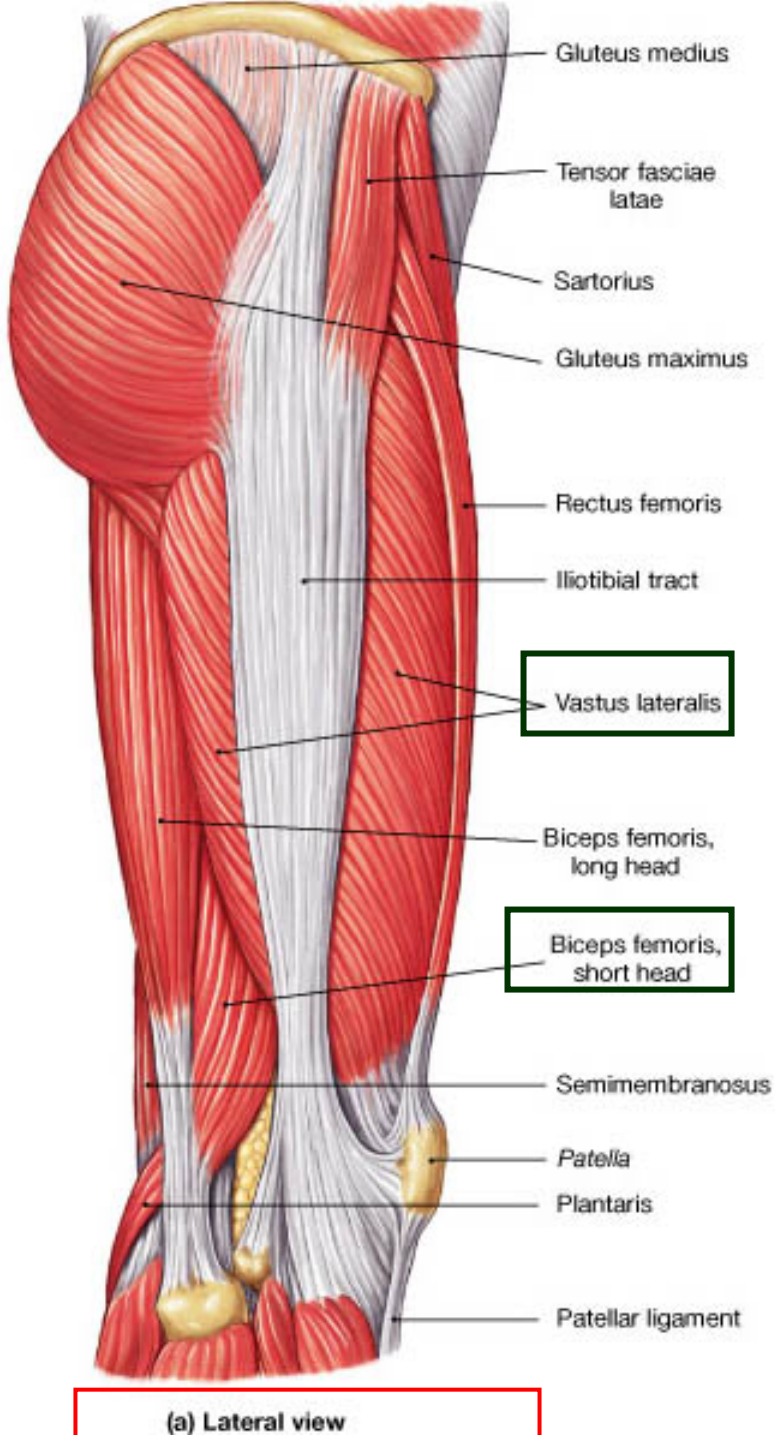

Gluteus medius
Tensor fasciae latae
Sartorius
Gluteus maximus
Rectus femoris
Iliotibial tract
Vastus lateralis
Biceps femoris, long head
Biceps femoris, short head
Semimembranosus
Patella
Plantaris
Patellar ligament
(a) Lateral view

Fig 11-13

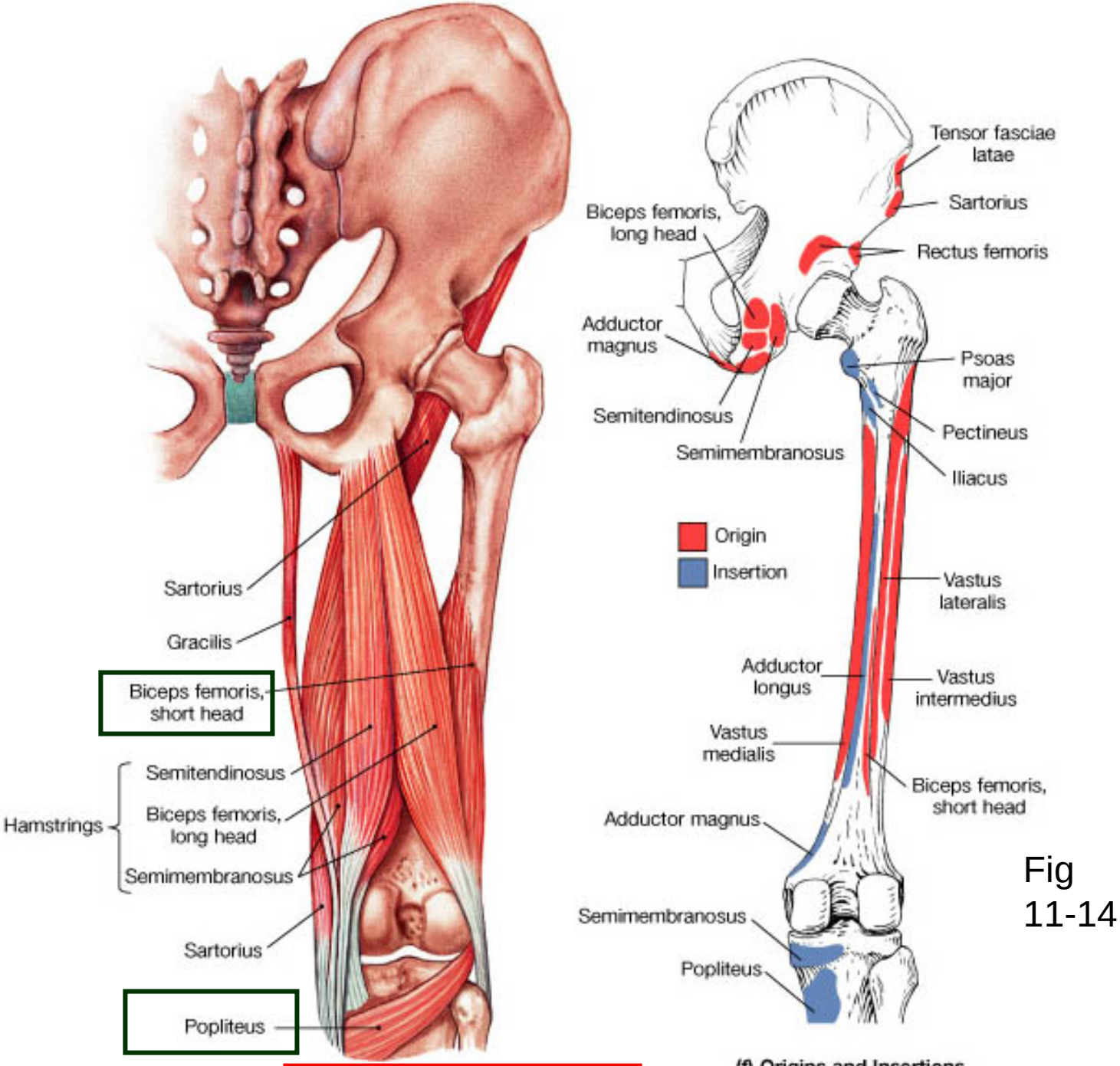
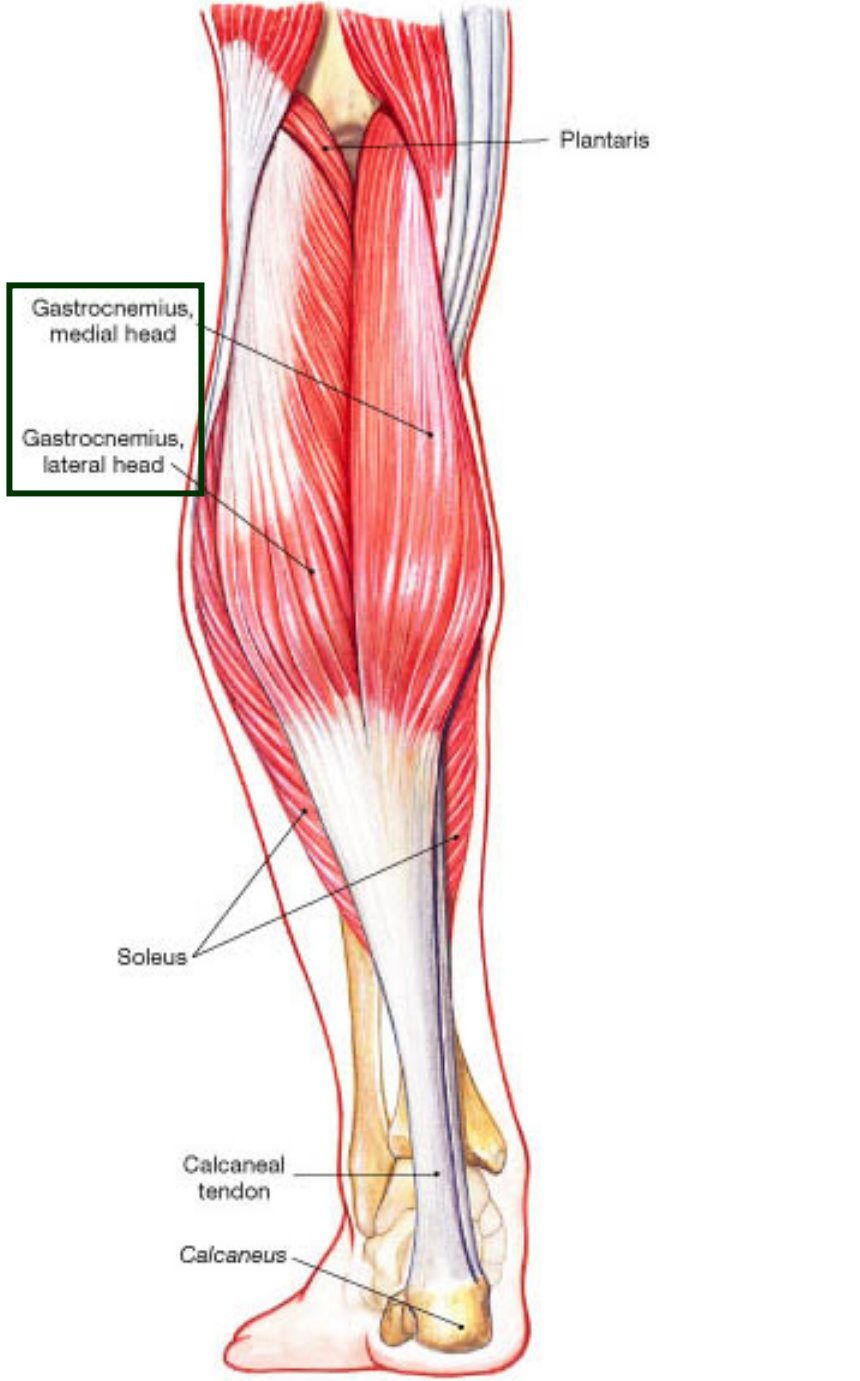

Sartorius
Gracilis
Biceps femoris, short head
Hamstrings
Semitendinosus
Biceps femoris, long head
Semimembranosus
Sartorius
Popliteus
(e) Posterior view
Tensor fasciae latae
Sartorius
Biceps femoris, long head
Rectus femoris
Adductor magnus
Psoas major
Semitendinosus
Pectineus
Semimembranosus
Iliacus
Origin
Insertion
Vastus lateralis
Adductor longus
Vastus intermedius
Vastus medialis
Biceps femoris, short head
Adductor magnus
Semimembranosus
Popliteus
(f) Origins and Insertions, posterior view

Fig 11-14

Muscles that act on the leg & foot

Fig 11-15



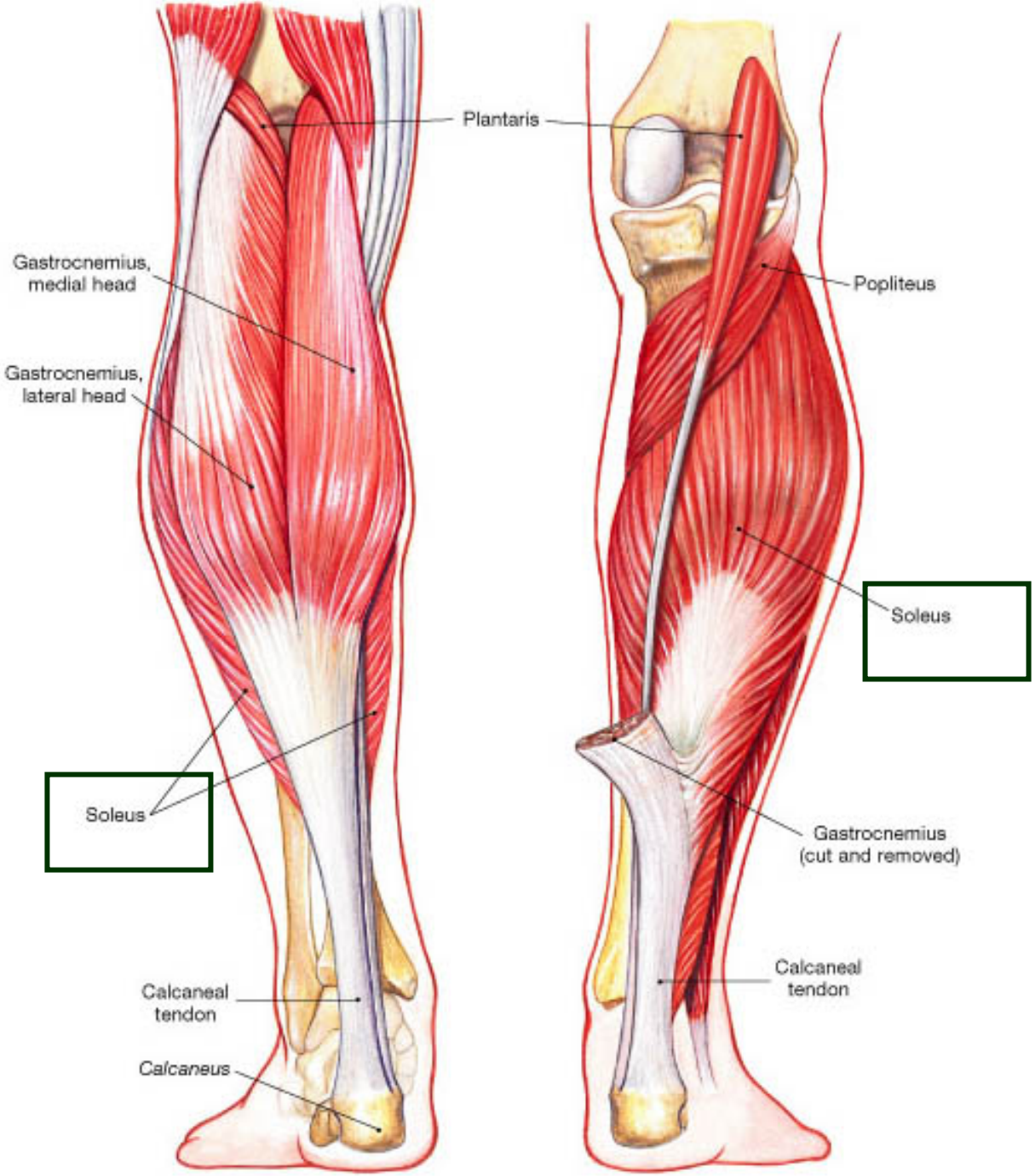
(a) Superficial muscles, posterior view

Muscles that act on the foot & toes

- Peroneus is another name for fibularis
- Peroneus longus/Fibularis longus

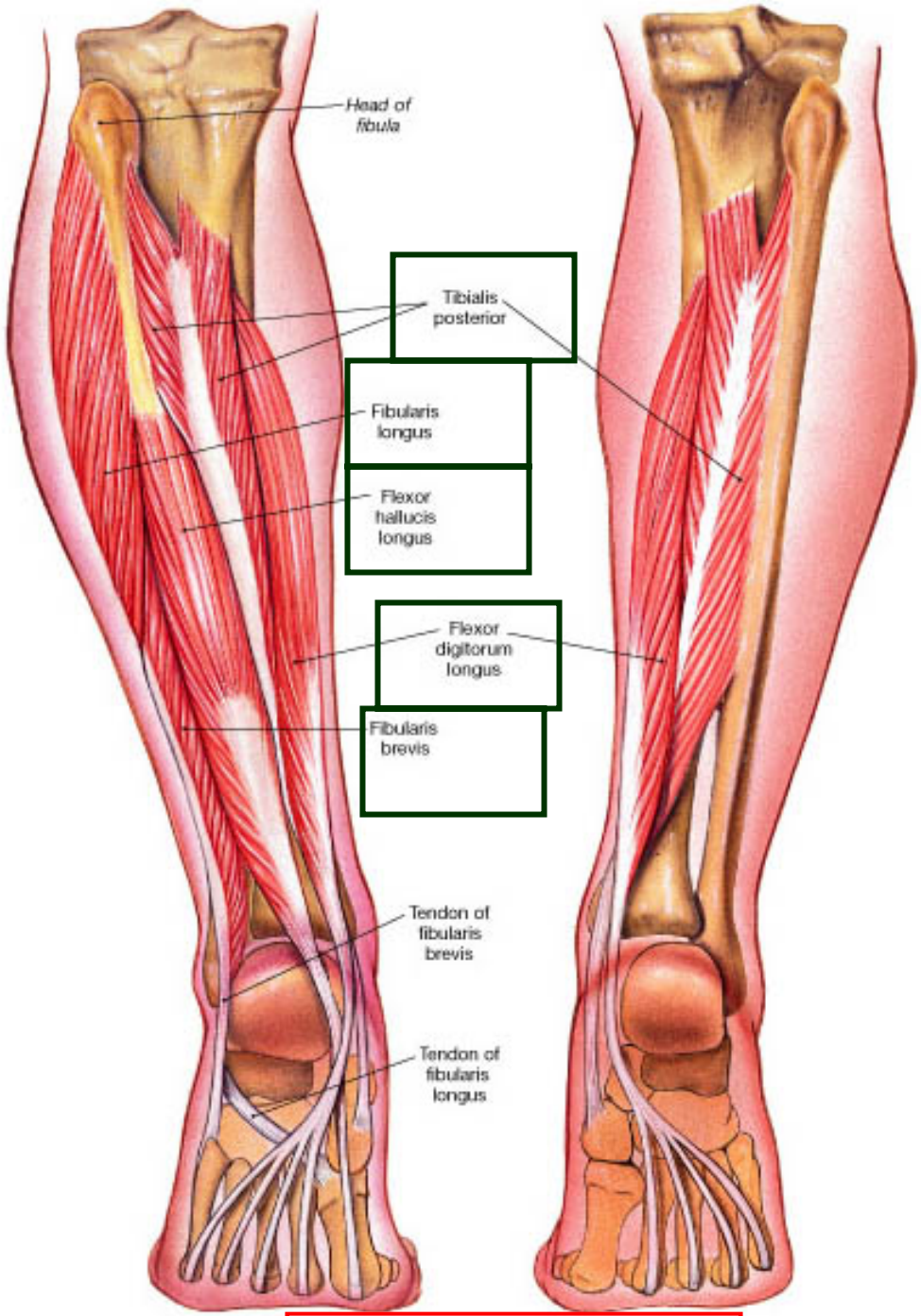
- Flexor hallucis longus/Flexor digitorum longus/Tibialis posterior are deep to the Soleus

Fig 11-15



(a) Superficial muscles, posterior view

Fig 11-15



(c) Deep muscles, posterior view

Fig 11-16

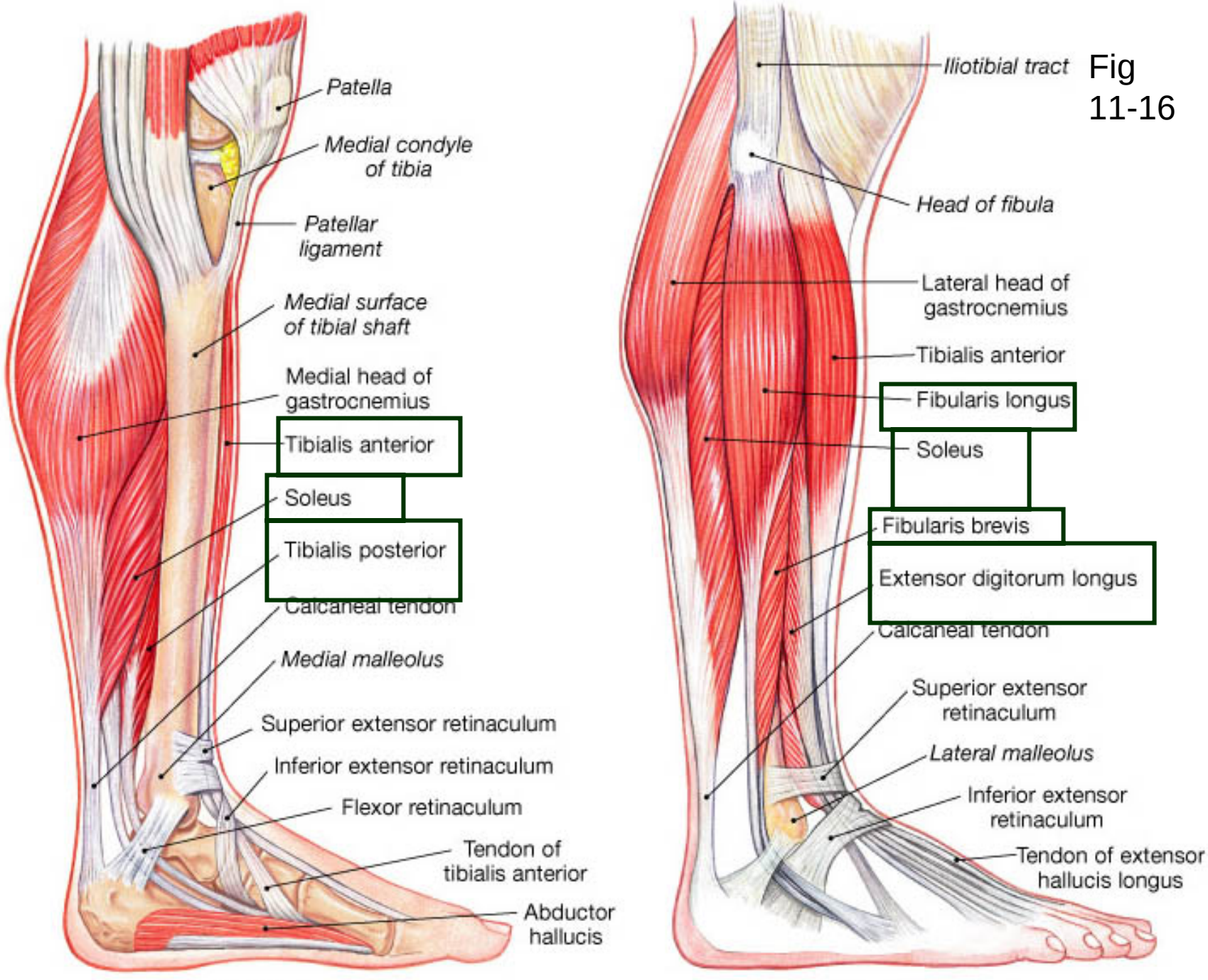
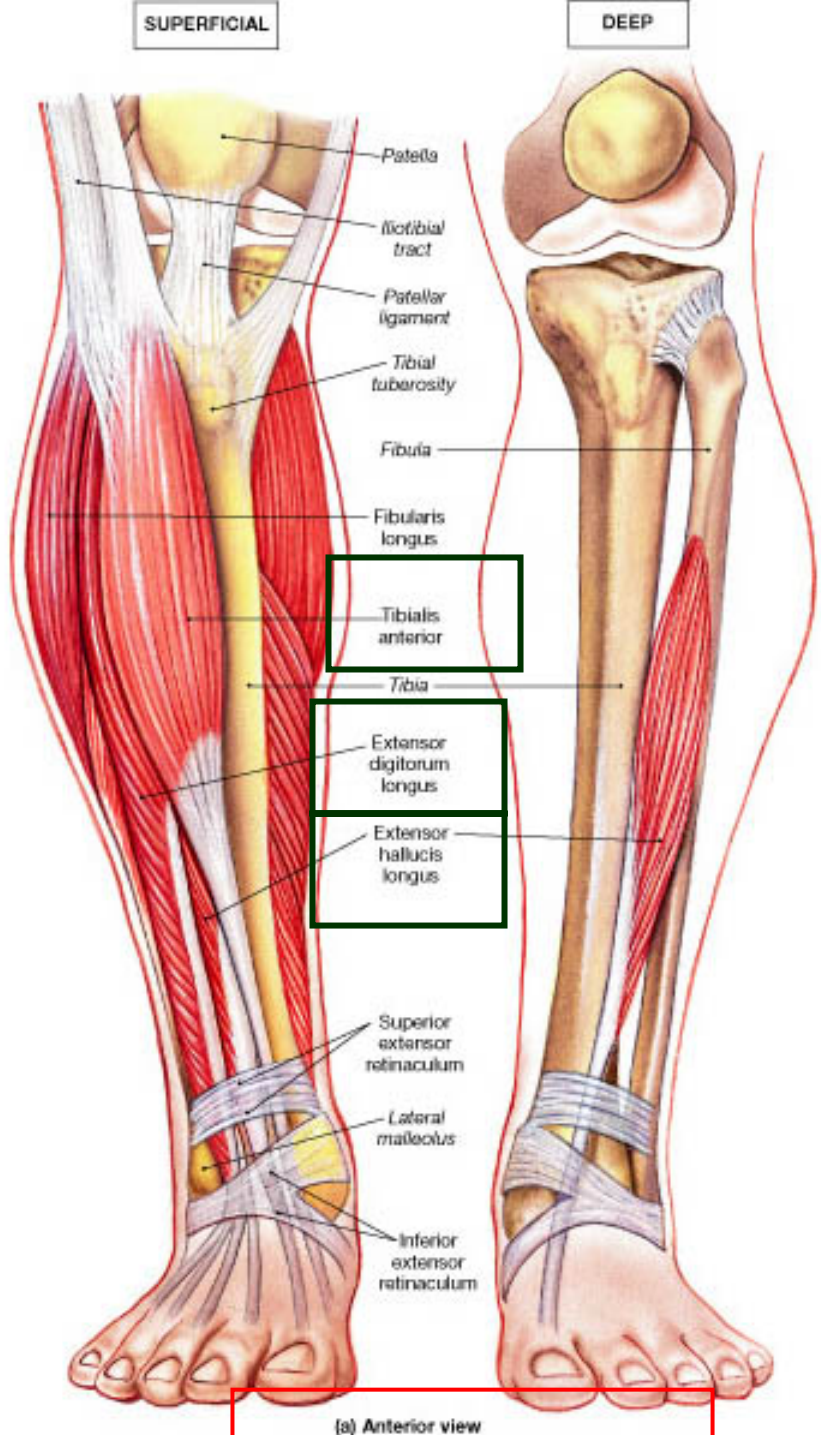

Patella
Medial condyle of tibia
Patellar ligament
Medial surface of tibial shaft
Medial head of gastrocnemius
Tibialis anterior
Soleus
Tibialis posterior
Calcaneal tendon
Medial malleolus
Superior extensor retinaculum
Inferior extensor retinaculum
Flexor retinaculum
Tendon of tibialis anterior
Abductor hallucis
(a) Medial view
Iliotibial tract
Head of fibula
Lateral head of gastrocnemius
Tibialis anterior
Fibularis longus
Soleus
Fibularis brevis
Extensor digitorum longus
Calcaneal tendon
Superior extensor retinaculum
Lateral malleolus
Inferior extensor retinaculum
Tendon of extensor hallucis longus
(b) Lateral view

Fig 11-17


SUPERFICIAL
DEEP
Patella
Iliotibial tract
Patellar ligament
Tibial tuberosity
Fibula
Fibularis longus
Tibialis anterior
Tibia
Extensor digitorum longus
Extensor hallucis longus
Superior extensor retinaculum
Lateral malleolus
Inferior extensor retinaculum
(a) Anterior view