

# MUSCLES ACTING ON THE THIGH AND LEG

David B. Fankhauser, PhD

Martini's 6<sup>th</sup>, pp 367-377, 7<sup>th</sup>: 363-372, 8<sup>th</sup>: 371-383

1Dec81, rvsd 5Dec96, 4Dec97, 2Dec99, 27Nov00, 28Nov01, 4Dec02, 26 Nov 03, 1 Dec 03, 21 Nov 05, 28Nov07, 1 Dec08, 30Nov09, 29Nov10, 30Nov11

**MUSCLES ACTING ON FEMUR:** (p 373) most arise from the pelvis except:

principle *flexor of hip*, together called **iliopsoas**, both insert into **lesser trochanter** by same tendon, under inguinal ligament

**psoas major and minor** origin: lumbar vertebrae (beef tenderloin: filet mignon, *chateaux briand*)(p. minor is absent in 40% pop)

**iliacus** origin: iliac crest and fossa insert: lesser trochanter (psoas inserts distal to lesser trochanter)

**GLUTEAL (BUTTOCKS):** important for bipedal locomotion, stabilizing weight bearing: G max: knee, G med & G min: hip.

**Gluteus maximus** *extensor and lateral rotator* origin: ilium, sacrum and coccyx. Insert: **iliotibial band**&gluteal tuberosity  
important for bipedal locomotion: strengthens extended knee

**gluteus medius** *abduct, medially rotate* outer surf. ilium to lat. surf. of greater trochanter, passes above hip joint

**gluteus minimus** *abduct, medially rotate* outer surf. ilium to ant. surface of greater trochanter, passes anteriorly

**tensor fascia lata:** (lata: broad) fascia lata invests all of the thigh muscles. inserts into iliotibial band, **stabilizes knee**.

**THIGH** (p 375) divided into **three compartments, anterior, posterior, medial:** Bottom, 375

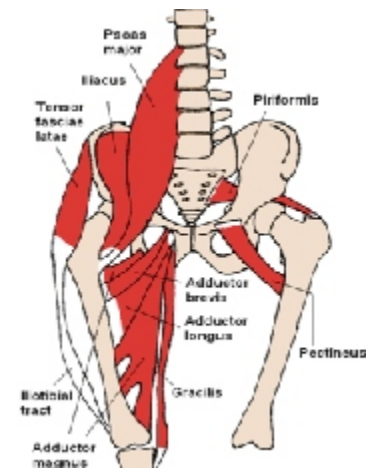
**MEDIAL COMPARTMENT:** *adductor compartment* (of thigh), **all originate fr pubis**, adduct thigh (pulled = pulled groin muscle)

**adductor magnus** Inserts along whole length of linea aspera

**adductor longus** Inserts middle third of linea aspera, anterior to magnus

**adductor brevis** Inserts upper portion of linea aspera, anterior to magnus

**pectineus** most proximal. origin: superior pubic ramus



**MUSCLES ACTING ON LEG:** (p 375 & 366)

**gracilis:** in med. compartment, but inserts medial surf. tibia: flex leg, assist adduction.

**ANTERIOR COMPARTMENT:** *extensor compartment* (all extend the knee)

**quadriceps femoris:** formed from four muscles, all insert into patella, different origins:

**rectus femoris** Origin: anterior inferior iliac spine and superior acetabular rim

**vastus lateralis** Origin: below greater trochanter

**vastus intermedius** Origin: anterior surface femur, linea aspera

**vastus medialis** Origin: length of linea aspera (large on bicyclers)

**sartorius:** Origin: ant. sup. iliac spine Insertion: medial tibial tuberosity, flexes both leg and thigh, lateral rotation

**POSTERIOR COMPARTMENT** *flexor compartment* (of the knee) **Hamstring muscles. All originate from ischial tuberosities.**

**biceps femoris** **lateral most**, tendon also lateral at knee (2<sup>nd</sup> origin: along linea aspera of femur)

**semimembranosus** head of fibula, lateral condyle tibia. At insertions, all posterior compartment tendons form **popliteal fossa**.

**semitendinosus** **medial most, lies on top of membranosus**, long tendon of insertion

