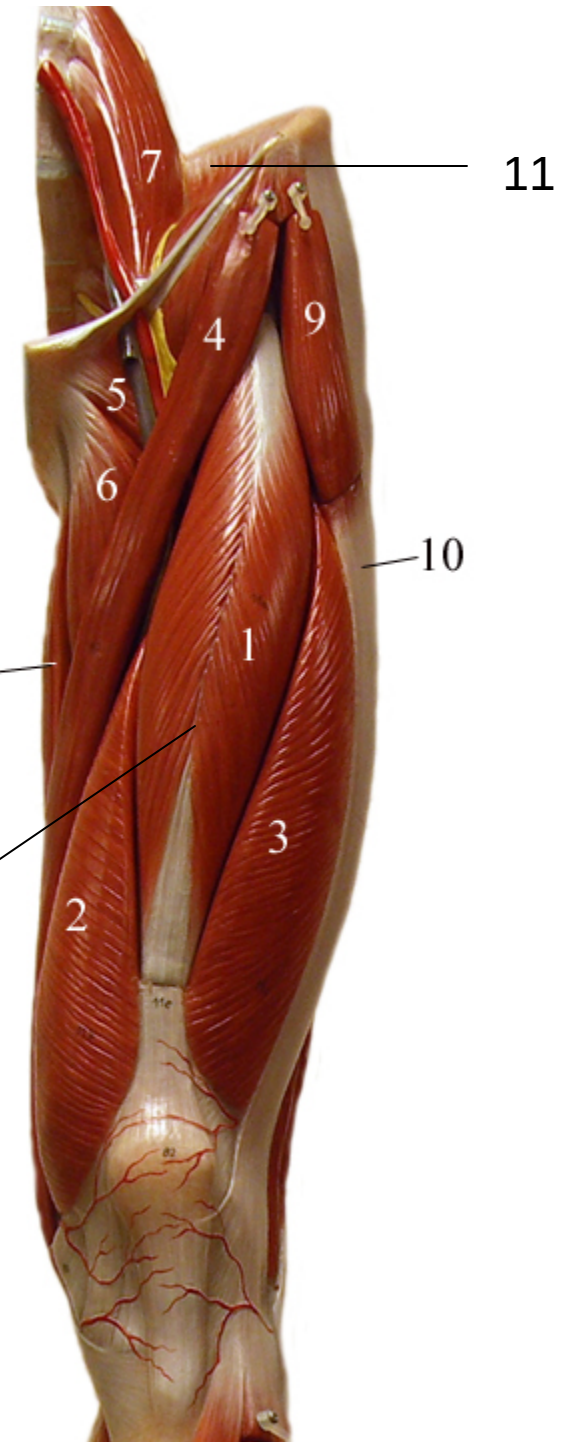




Muscle Anatomy

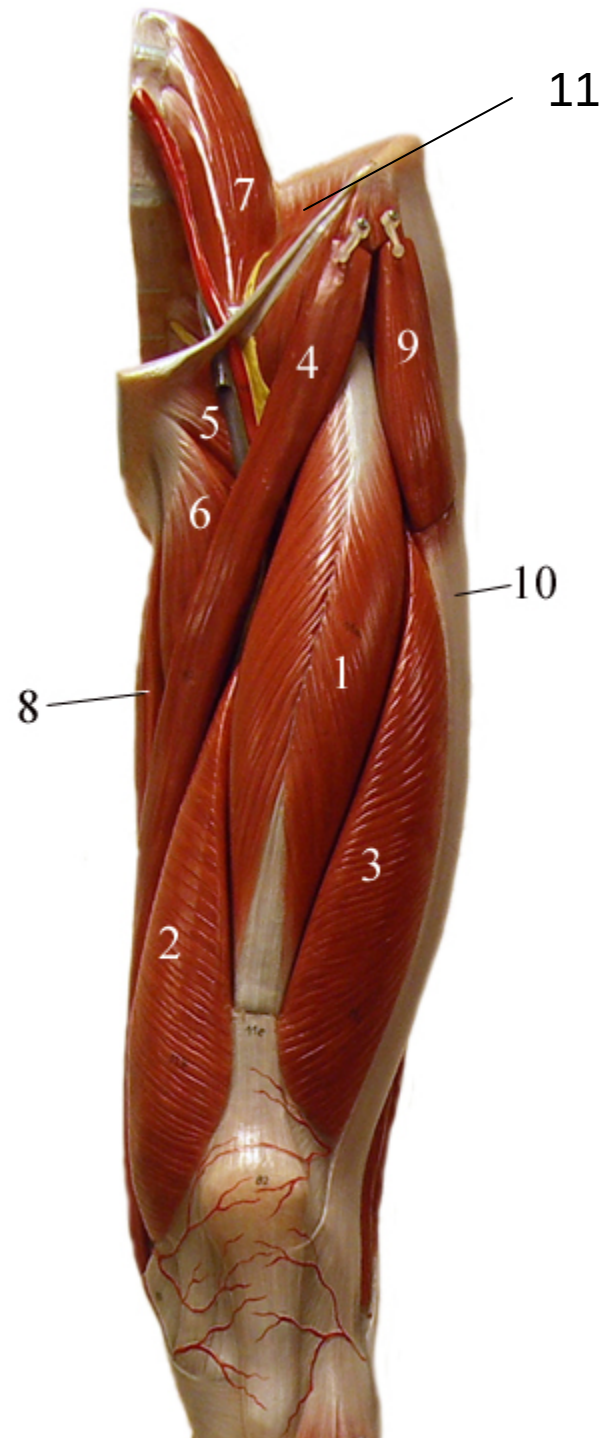
The Leg

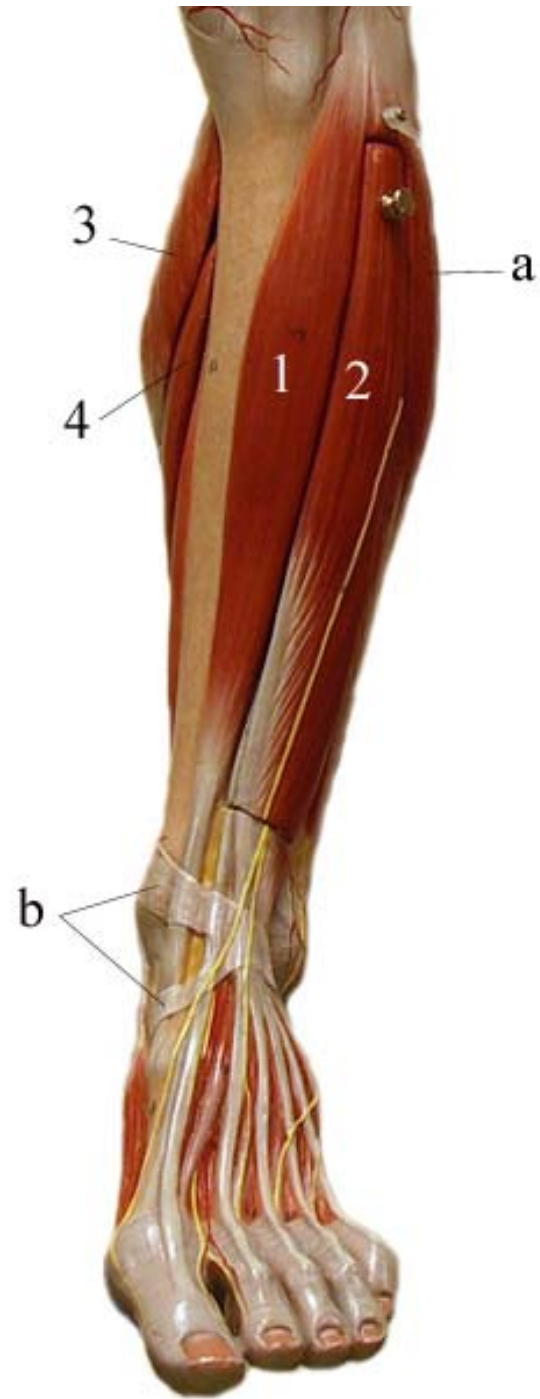


12 What muscle is deep to #1

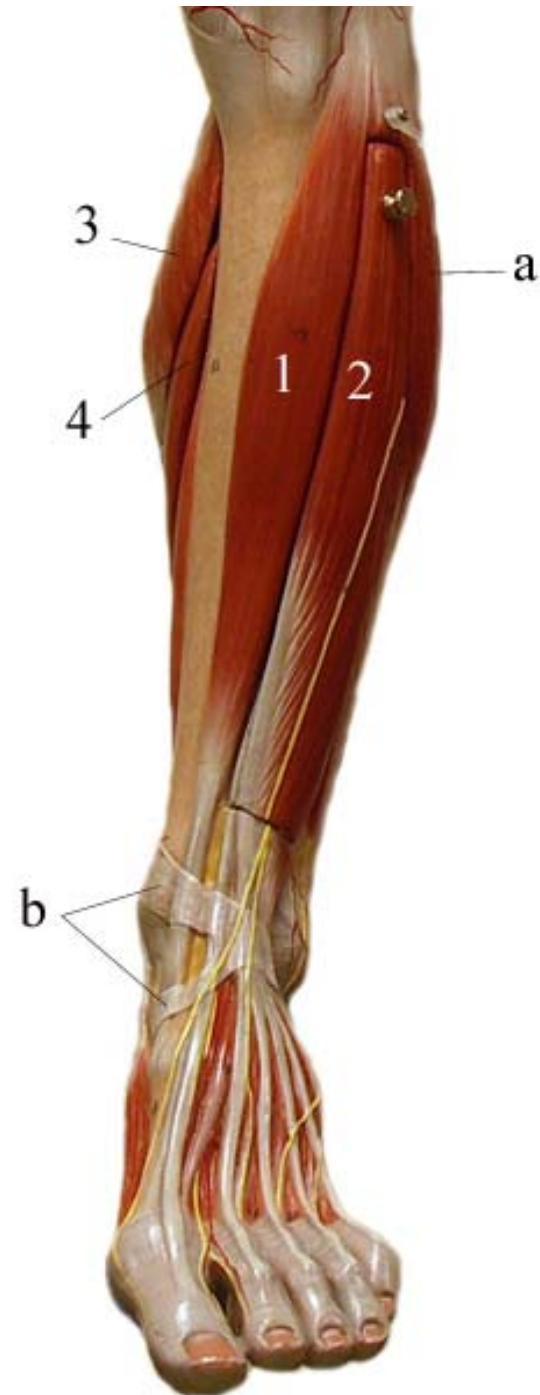
13 Muscle group = 1,2,3 and the Vastus intermedius

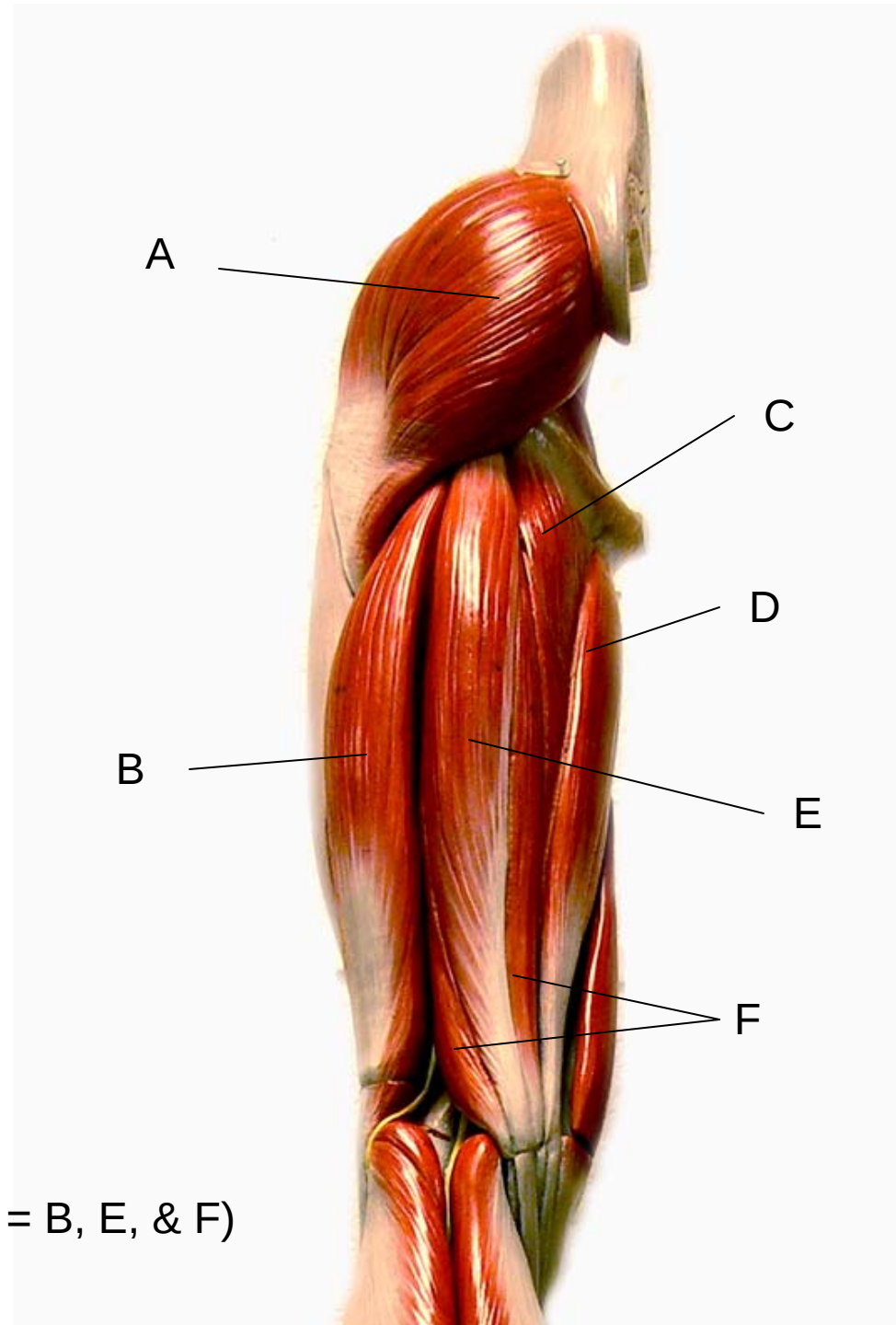
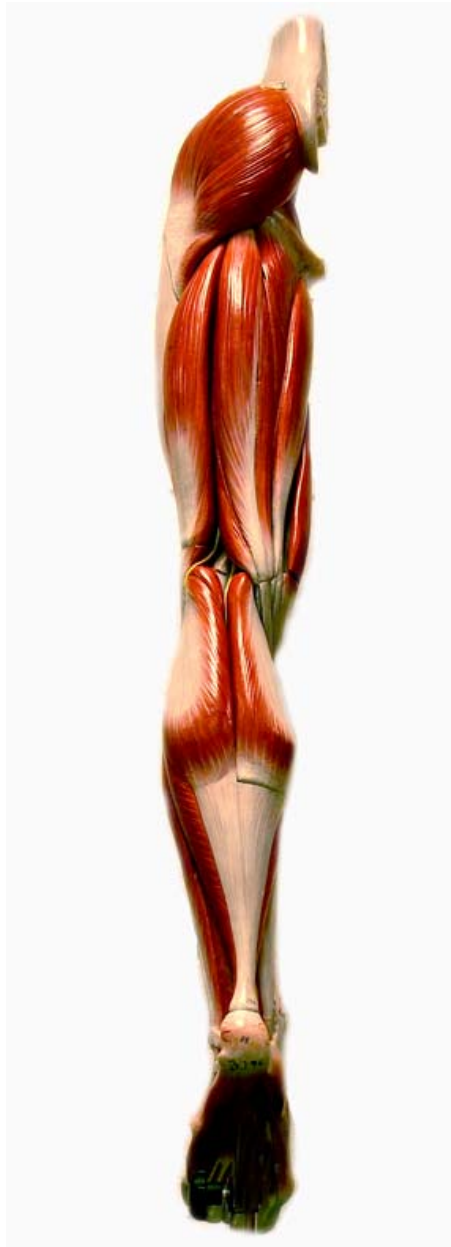
1. Rectus femoris
2. Vastus medialis
3. Vastus lateralis
4. Satorius
5. Pectineus (not objective)
6. Adductor longus
7. Psoas major
8. Gracilis
9. Tensor fasciae latae (not objective)
10. Iliotibial band
11. Iliacus
12. Vastus intermedius (deep to #1)
13. The quadriceps





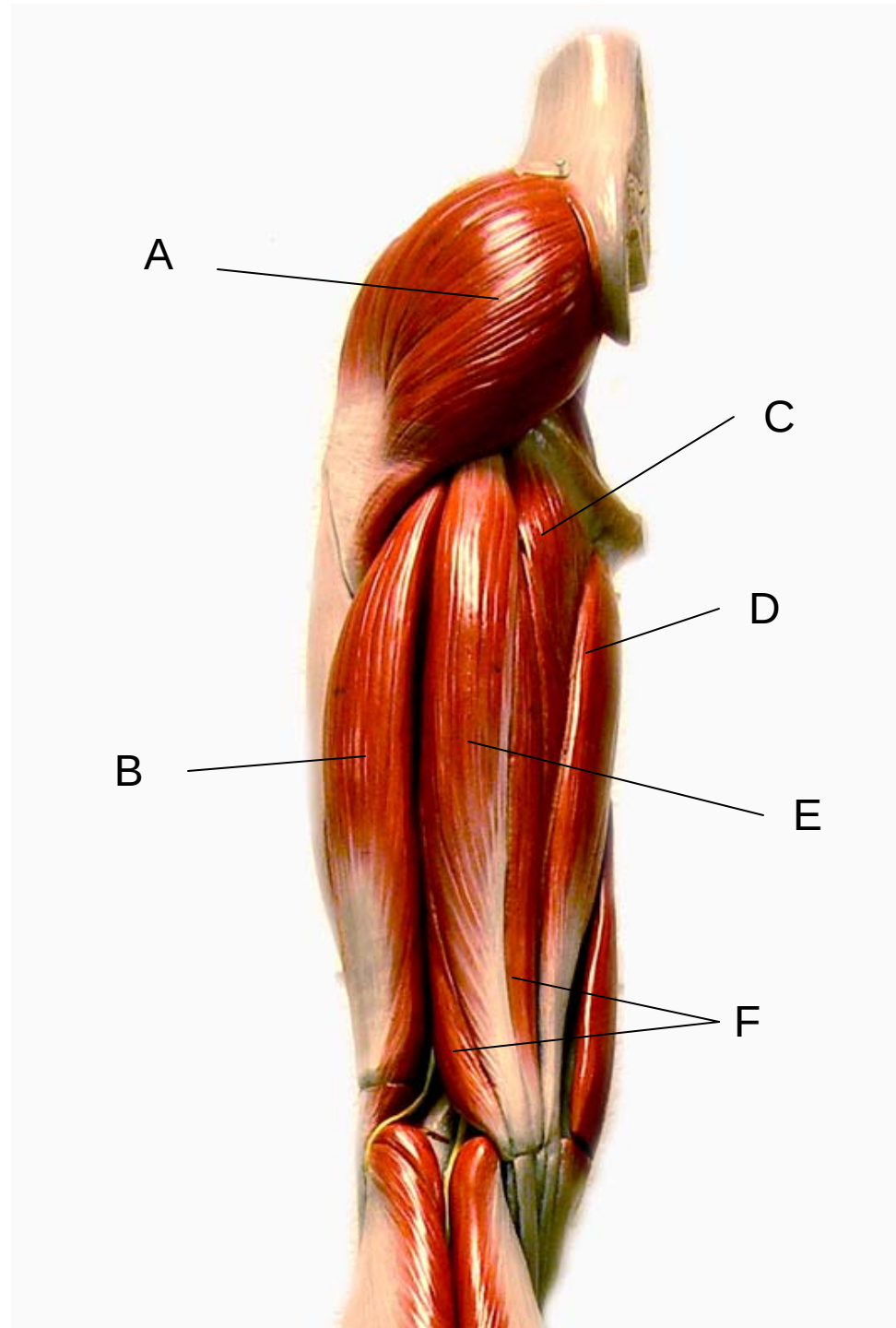
1. Tibialis anterior
2. Extensor digitorum longus
3. Gastrocnemius
4. Soleus
- a. Fibularis longus (not an objective)
- b. Extensor retinacula (not an objective)

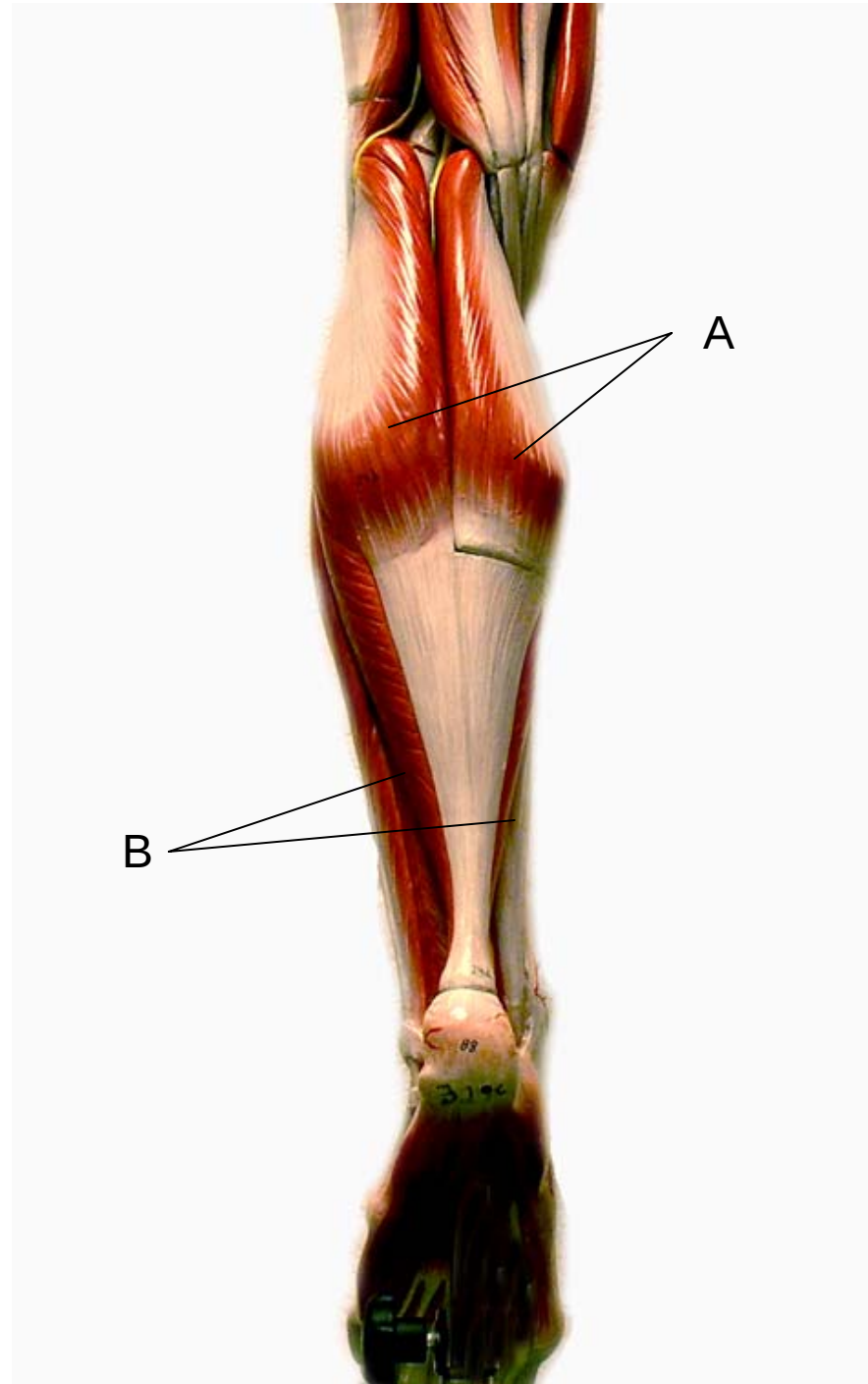
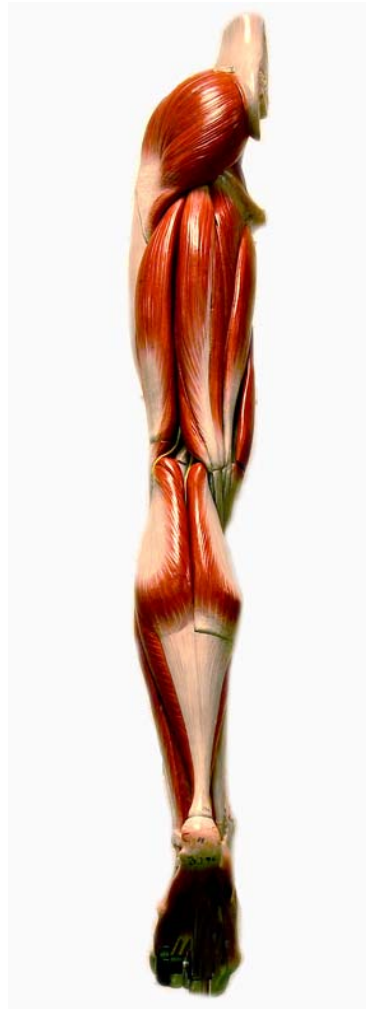




G. (Muscle Group = B, E, & F)

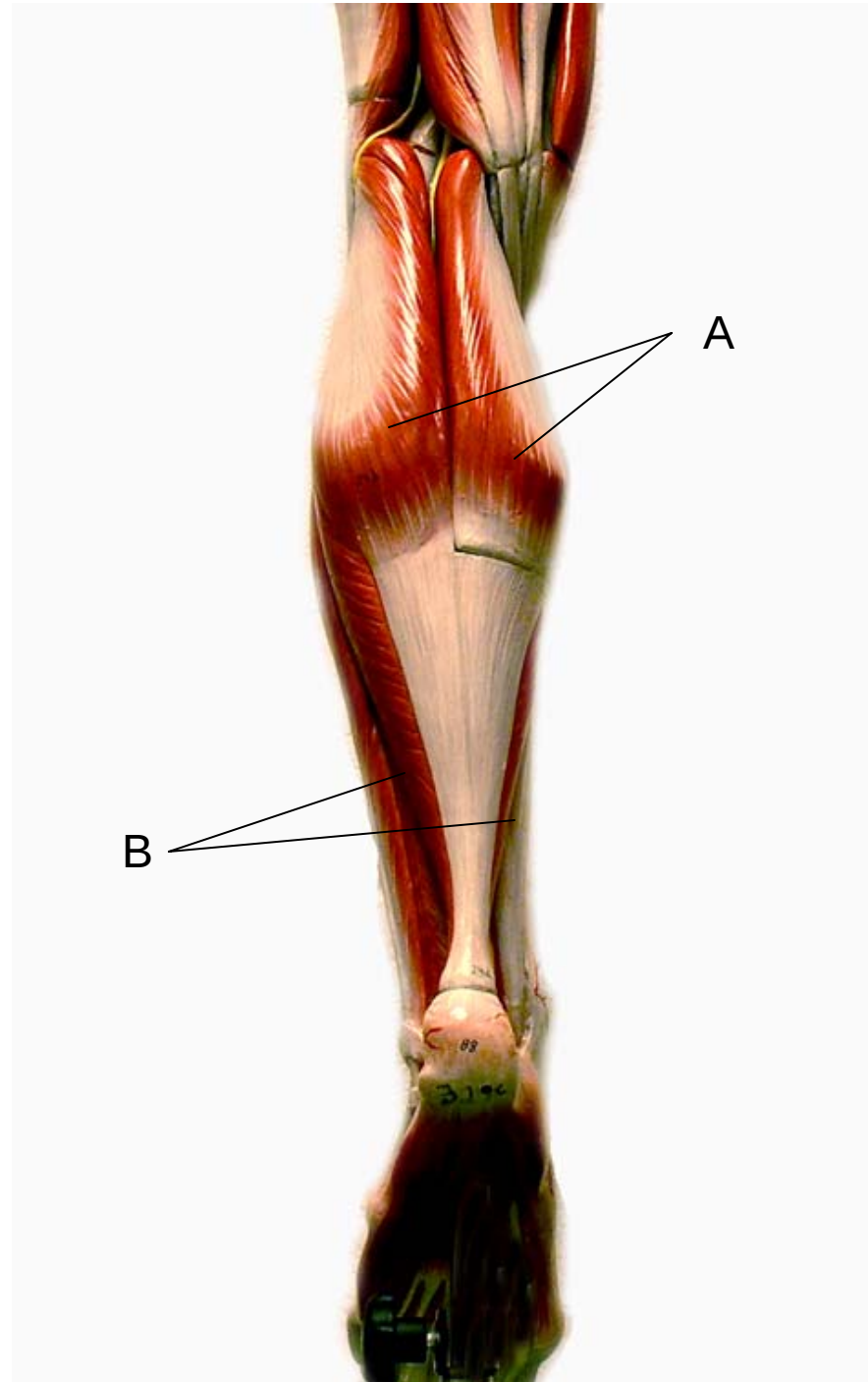
- A. Gluteus maximus
- B. Biceps femoris
- C. Adductor magnus
- D. Gracilis
- E. Semitendinosus
- F. Semimembranosus
- G. Hamstring Group

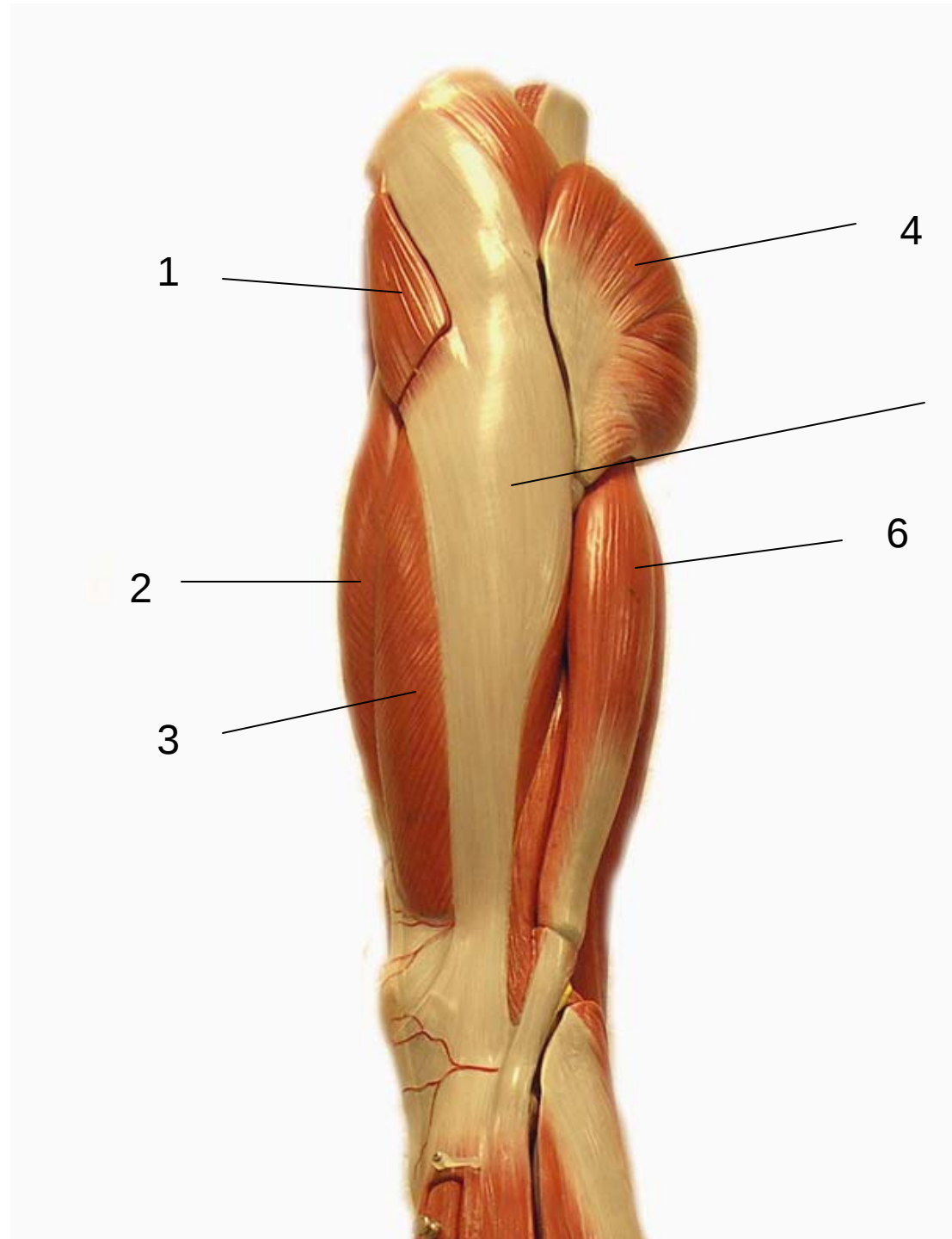




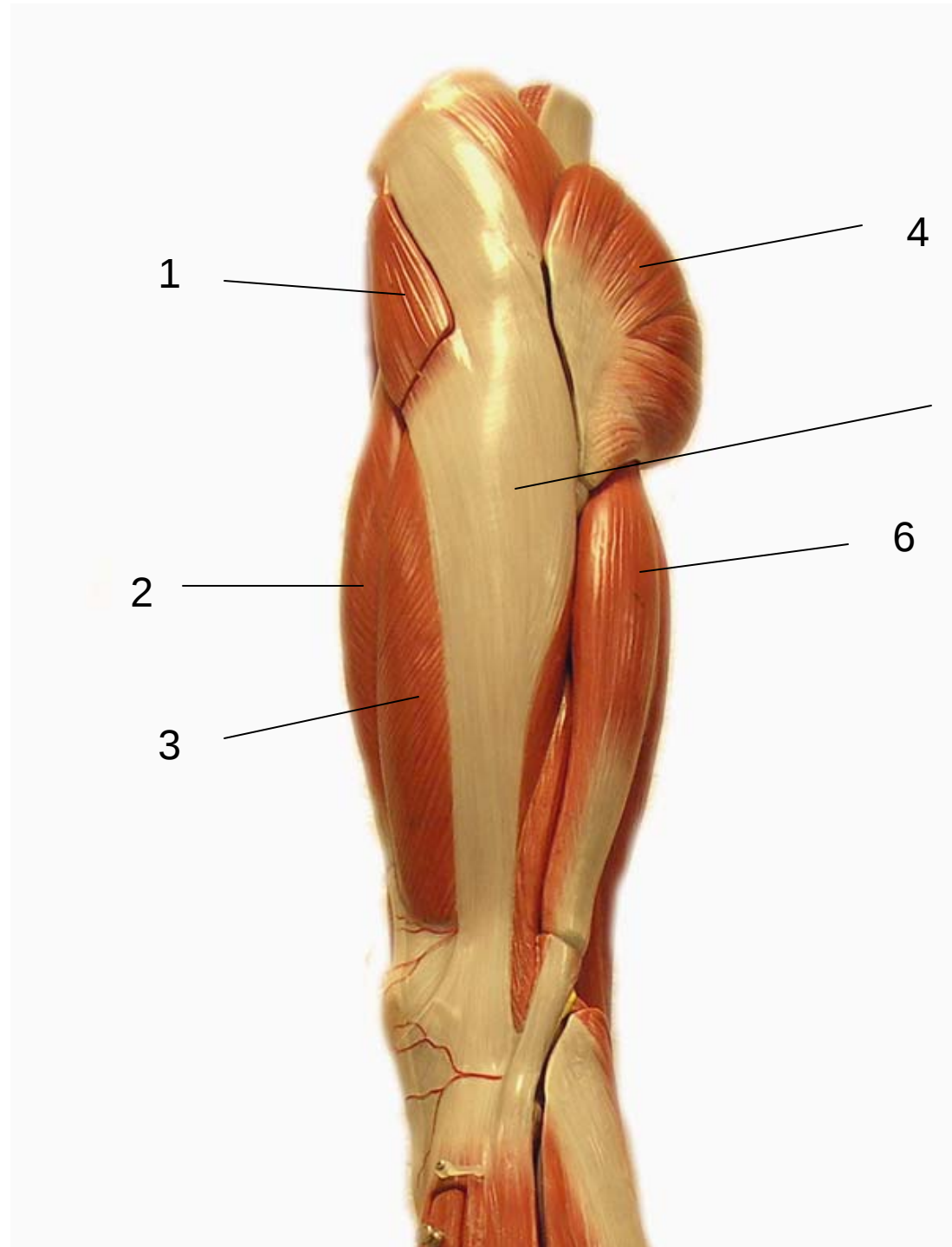
A. Gastronemius

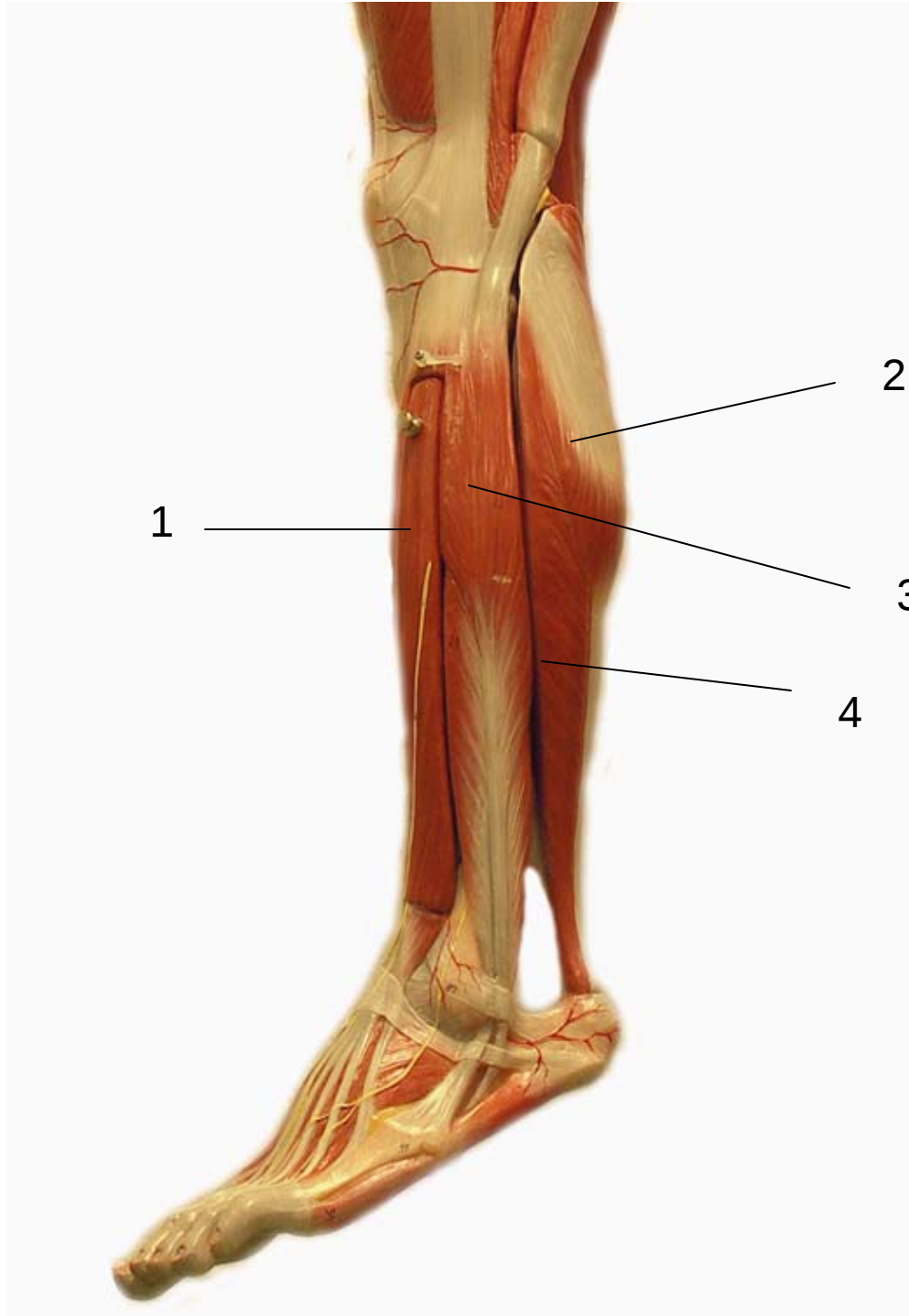
B. Soleus



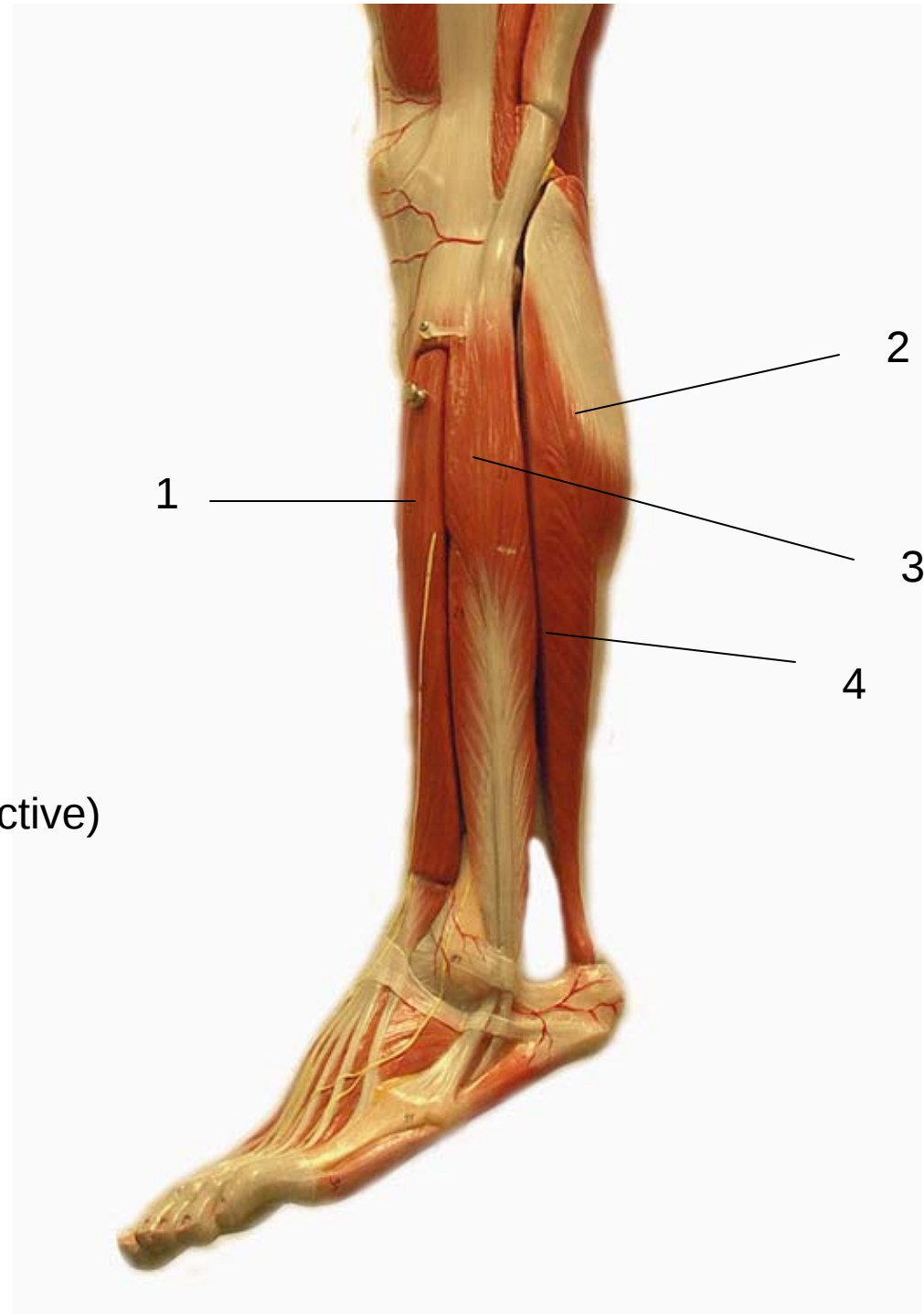


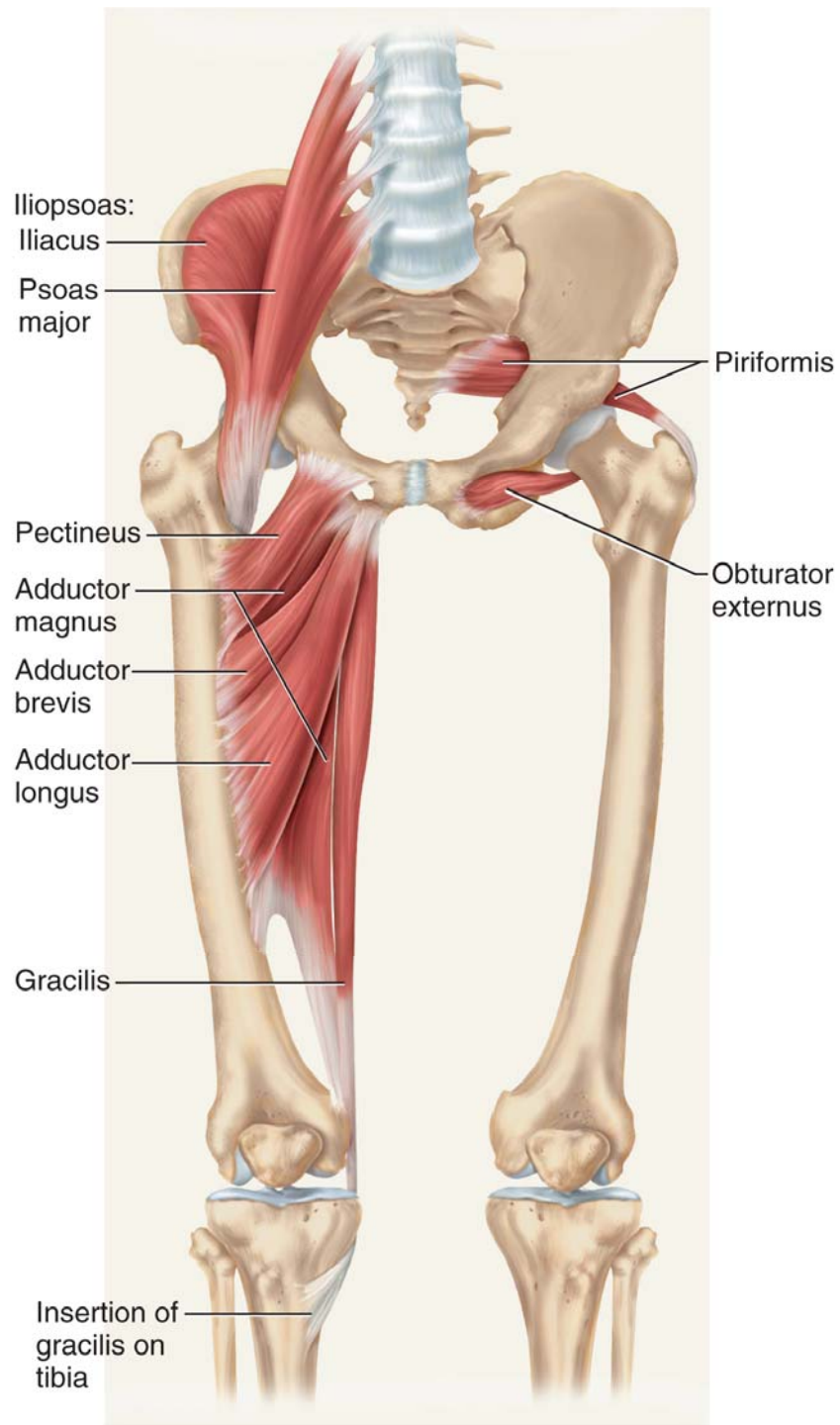
1. Tensor fascia latae
2. Rectus femoris
3. Vastus lateralis
4. Gluteus maximus
5. Tensor fasciae latae
6. Biceps femoris

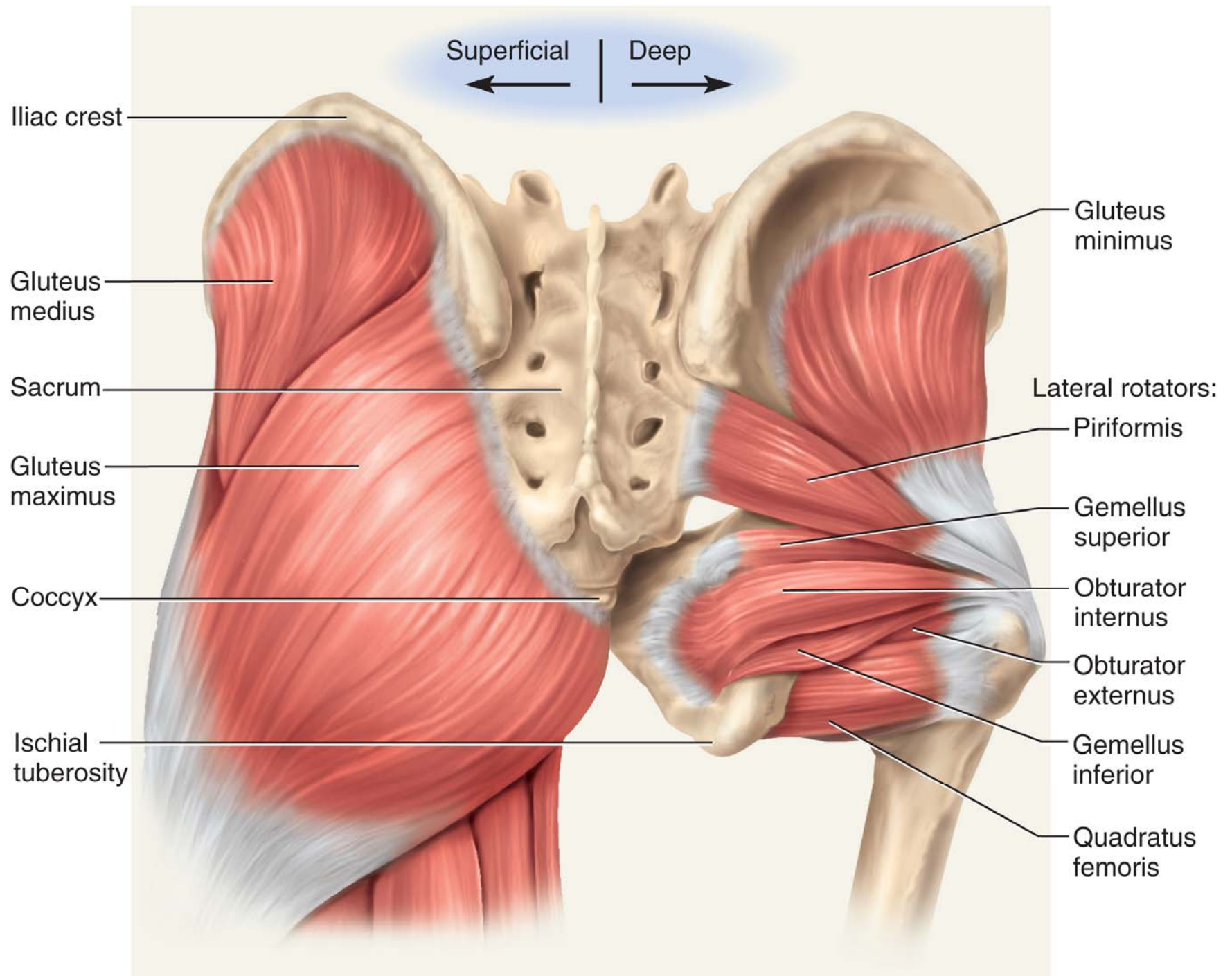


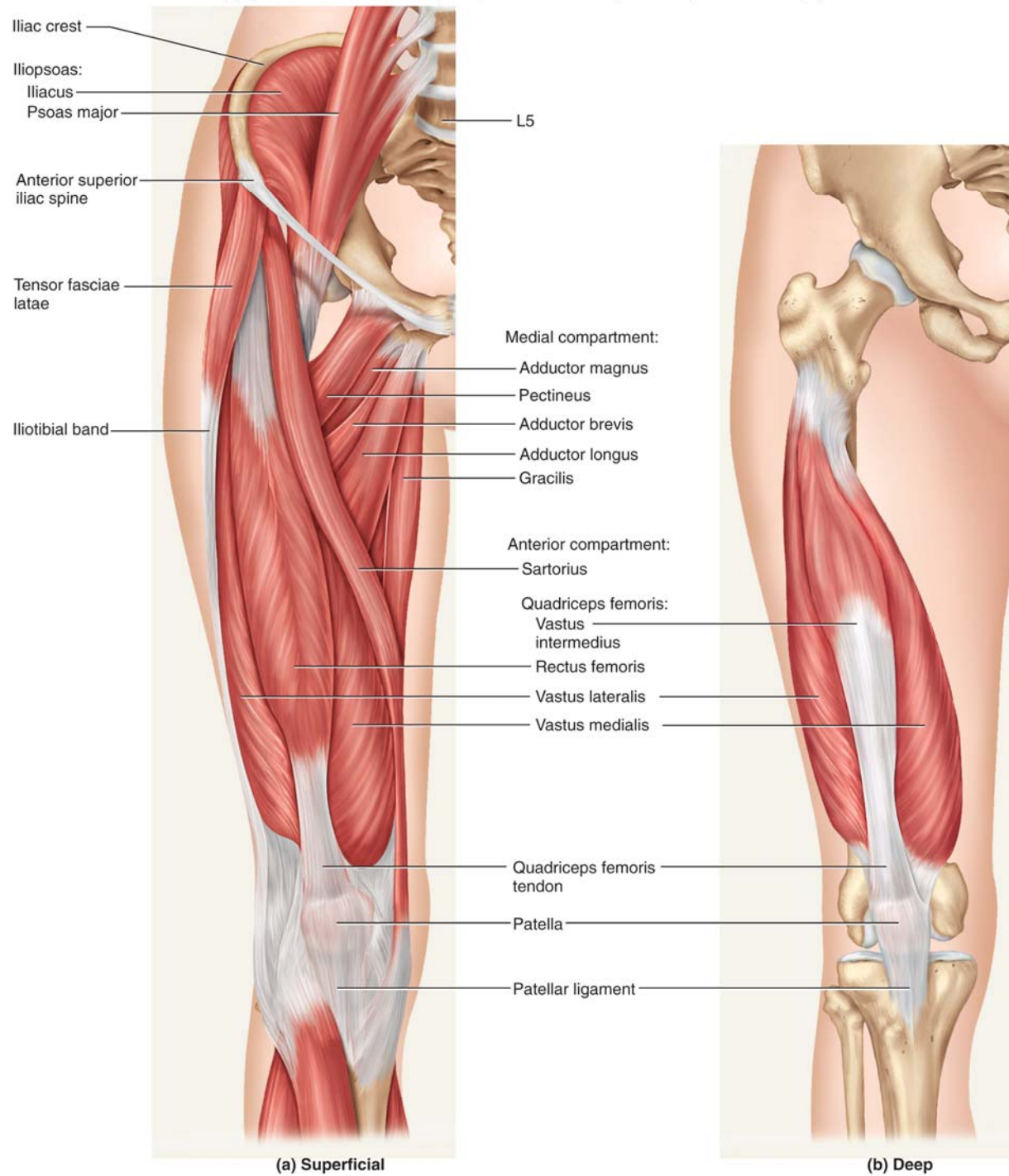


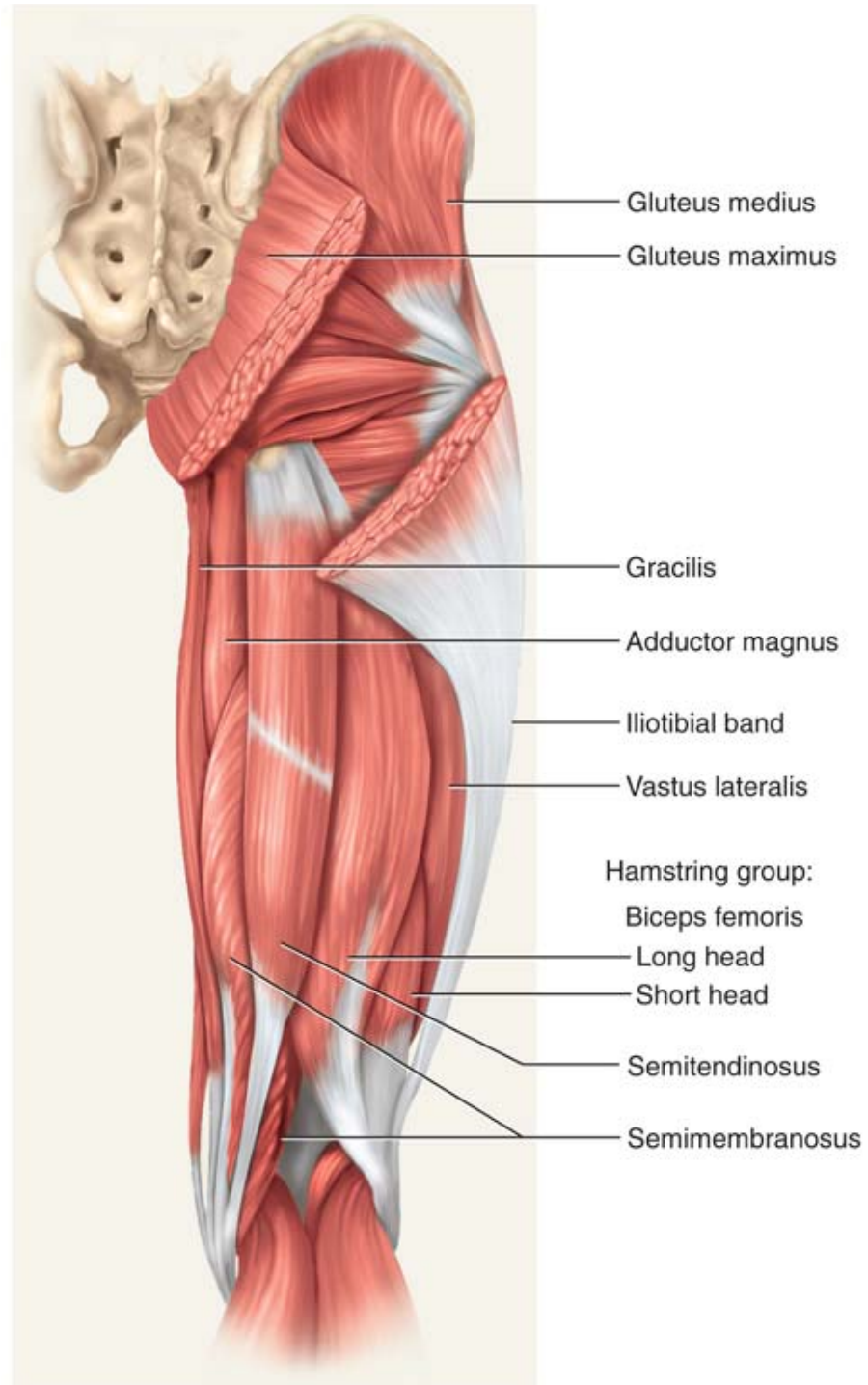
- 1 Tibialis anterior
- 2 Gastronemius
- 3 Fibularis longus (not an objective)
- 4 Soleus

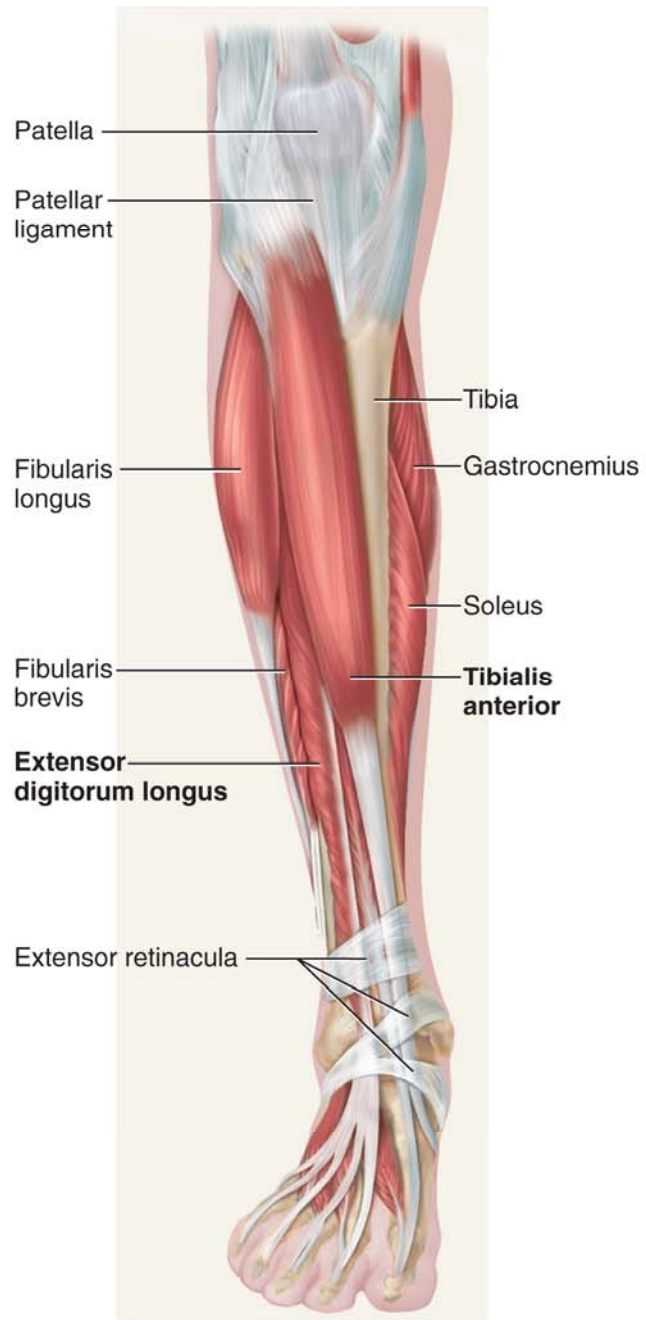




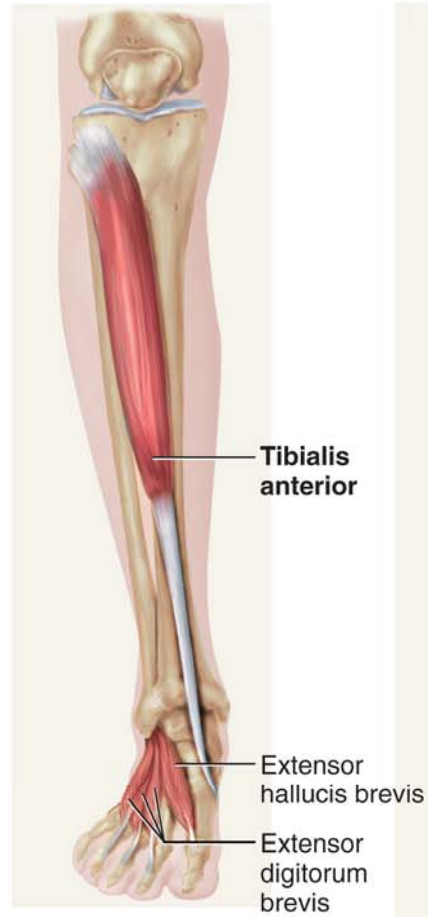




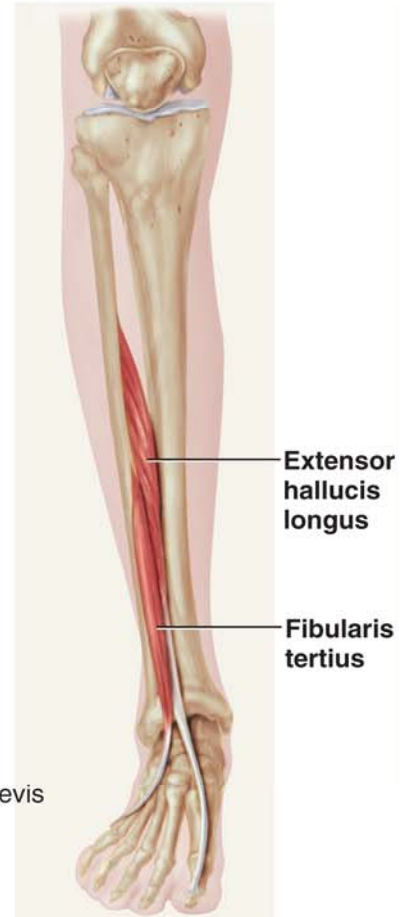




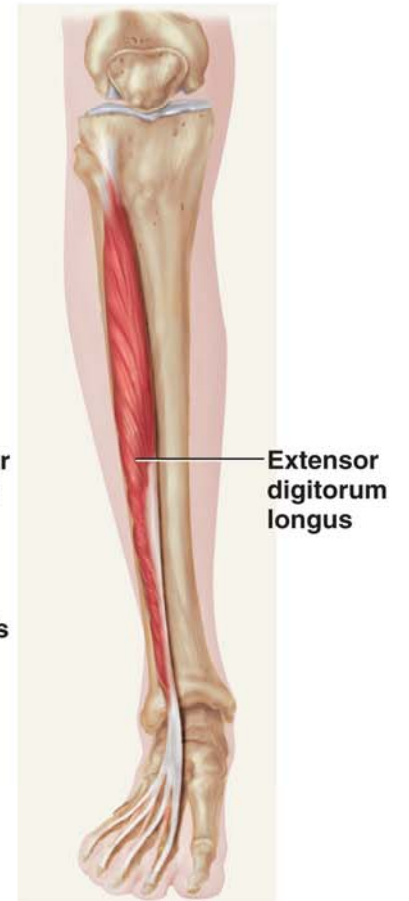
(a)



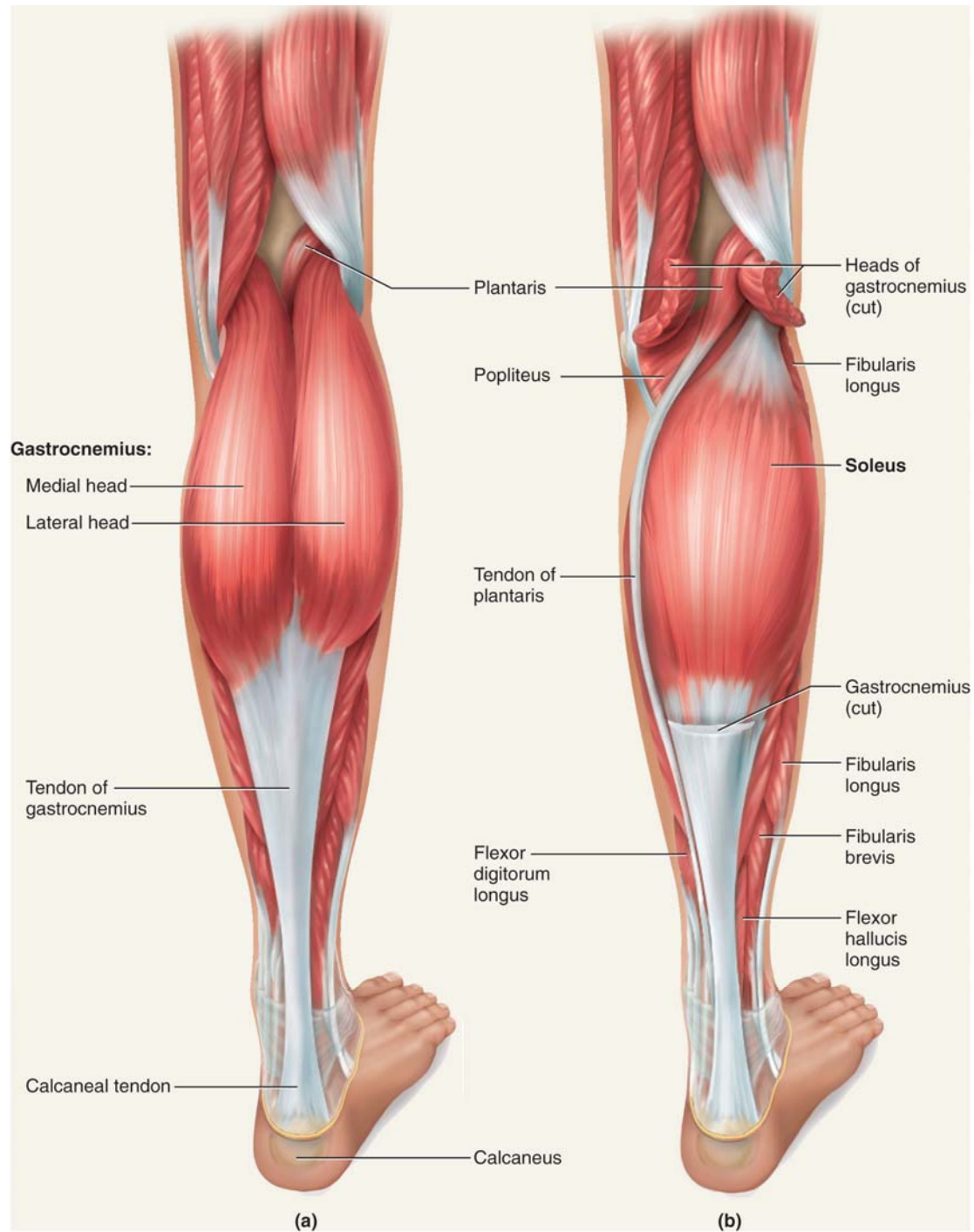
(b)



(c)



(d)



Name	Action	O: Origin I: Insertion	Innervation
Quadriceps Femoris (QUAD-rih-seps FEM-oh-ris)	Extends the knee, in addition to the actions of individual heads noted below	O: Varies; see individual heads below I: Patella; tibial tuberosity; lateral and medial condyles of tibia	Femoral nerve
Rectus Femoris	Extends knee; flexes thigh at hip; flexes trunk on hip if thigh is fixed	O: Ilium at anterior inferior spine and superior margin of acetabulum; capsule of hip joint I: See quadriceps femoris above	Femoral nerve
Vastus⁷⁸ Lateralis	Extends knee; retains patella in groove on femur during knee movements	O: Femur at greater trochanter and intertrochanteric line, gluteal tuberosity, and linea aspera I: See quadriceps femoris above	Femoral nerve
Vastus Medialis	Same as vastus lateralis	O: Femur at intertrochanteric line, spiral line, linea aspera, and medial supracondylar line I: See quadriceps femoris above	Femoral nerve
Vastus Intermedius	Extends knee	O: Anterior and lateral surfaces of femoral shaft I: See quadriceps femoris above	Femoral nerve
Gastrocnemius⁸⁷ (GAS-trock-NEE-me-us)	Plantar flexes foot, flexes knee; active in walking, running, and jumping	O: Condyles, popliteal surface, and lateral supracondylar line of femur; capsule of knee joint I: Calcaneus	Tibial nerve
Soleus⁸⁸ (SO-lee-us)	Plantar flexes foot; steadies leg on ankle during standing	O: Posterior surface of head and proximal one-fourth of fibula; middle one-third of tibia; interosseous membrane I: Calcaneus	Tibial nerve

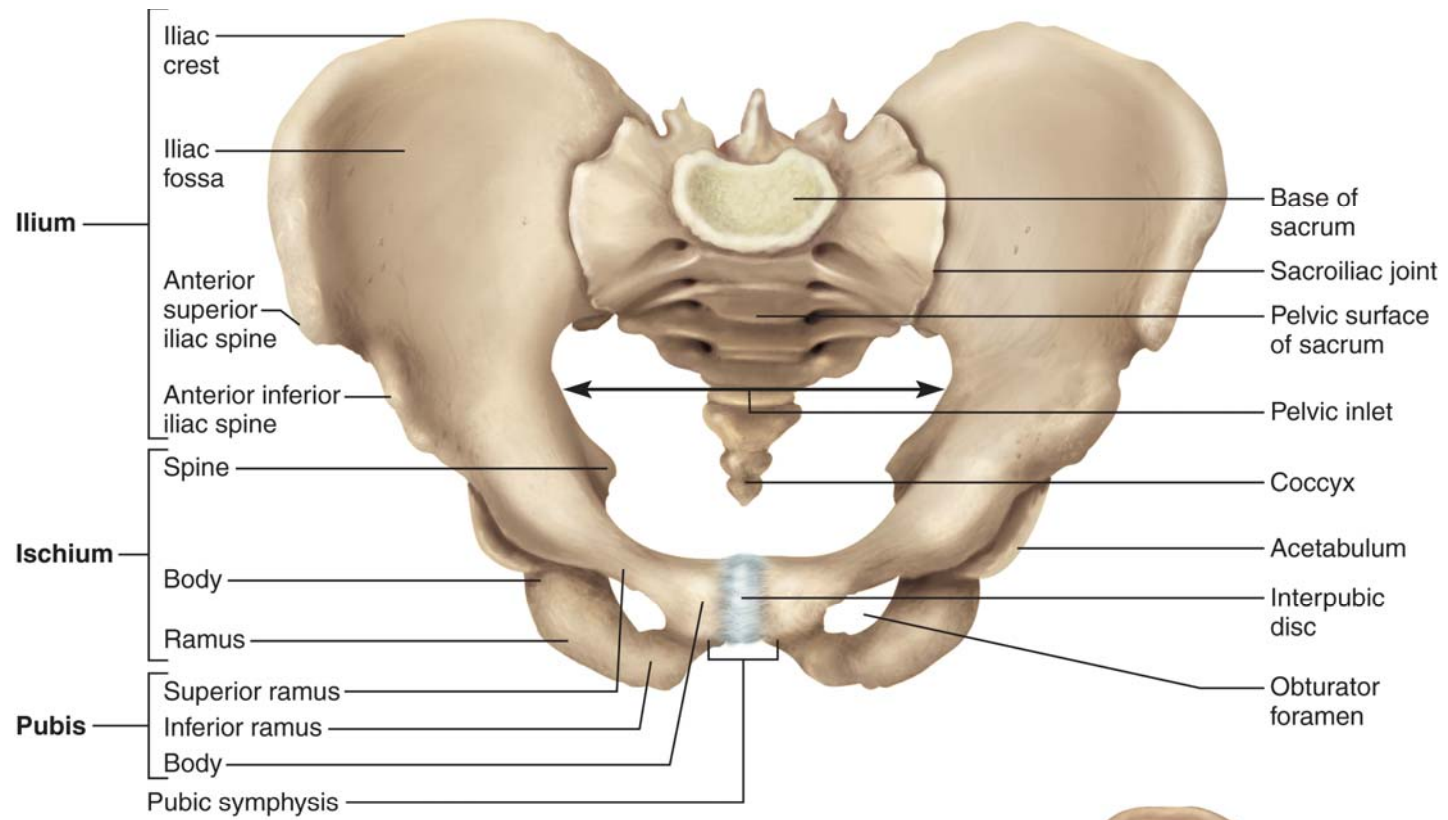
Anterior Muscles of the Hip. Most muscles that act on the femur originate on the hip bone. The two principal anterior muscles are the *iliacus*, which fills most of the broad iliac fossa of the pelvis, and the *psoas major*, a thick rounded muscle that arises mainly from the lumbar vertebrae (fig. 10.32). Collectively, they are called the **iliopsoas** and share a common tendon to the femur.

Name	Action	O: Origin I: Insertion	Innervation
Iliacus ⁶⁸ (ih-LY-uh-cus)	Flexes thigh at hip when trunk is fixed; flexes trunk at hip when thigh is fixed, as in bending forward in a chair or sitting up in bed; balances trunk during sitting	O: Iliac crest and fossa; superolateral region of sacrum; anterior sacroiliac and iliolumbar ligaments I: Lesser trochanter and nearby shaft of femur	Femoral nerve
Psoas ⁶⁹ Major (SO-ass)	Same as iliacus	O: Bodies and intervertebral discs of vertebrae T12–L5; transverse processes of lumbar vertebrae I: Lesser trochanter and nearby shaft of femur	Anterior rami of lumbar spinal nerves

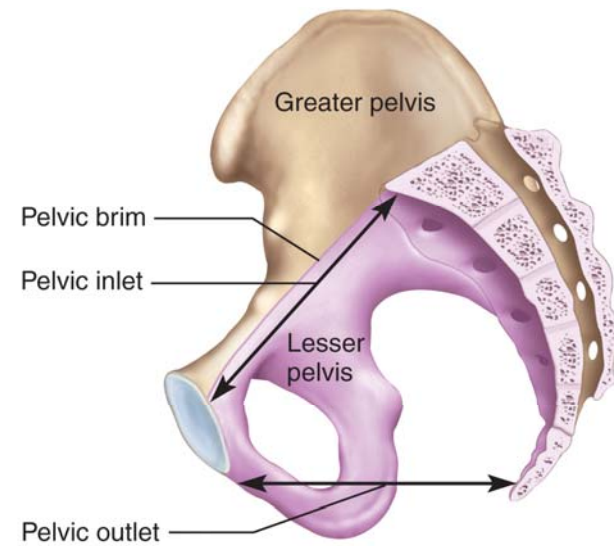
Medial (Adductor) Compartment of the Thigh. Fasciae divide the thigh into three compartments: the *anterior (extensor) compartment*, *posterior (flexor) compartment*, and *medial (adductor) compartment*. Muscles of the anterior and posterior compartments function mainly as extensors and flexors of the knee, respectively, and are treated in table 10.14. The five muscles of the medial compartment act primarily as adductors of the thigh (see fig. 10.32), but some of them cross both the hip and knee joints and have additional actions as follows.

Adductor Brevis	Adducts thigh	O: Body and inferior ramus of pubis I: Linea aspera and spiral line of femur	Obturator nerve
Adductor Longus	Adducts and medially rotates thigh; flexes thigh at hip	O: Body and inferior ramus of pubis I: Linea aspera of femur	Obturator nerve
Adductor Magnus	Adducts and medially rotates thigh; extends thigh at hip	O: Inferior ramus of pubis; ramus and tuberosity of ischium I: Linea aspera, gluteal tuberosity, and medial supracondylar line of femur	Obturator nerve; tibial nerve
Gracilis ⁷⁶ (GRASS-ih-lis)	Flexes and medially rotates tibia at knee	O: Body and inferior ramus of pubis; ramus of ischium I: Medial surface of tibia just below condyle	Obturator nerve
Pectineus ⁷⁷ (pec-TIN-ee-us)	Flexes and adducts thigh	O: Superior ramus of pubis I: Spiral line of femur	Femoral nerve

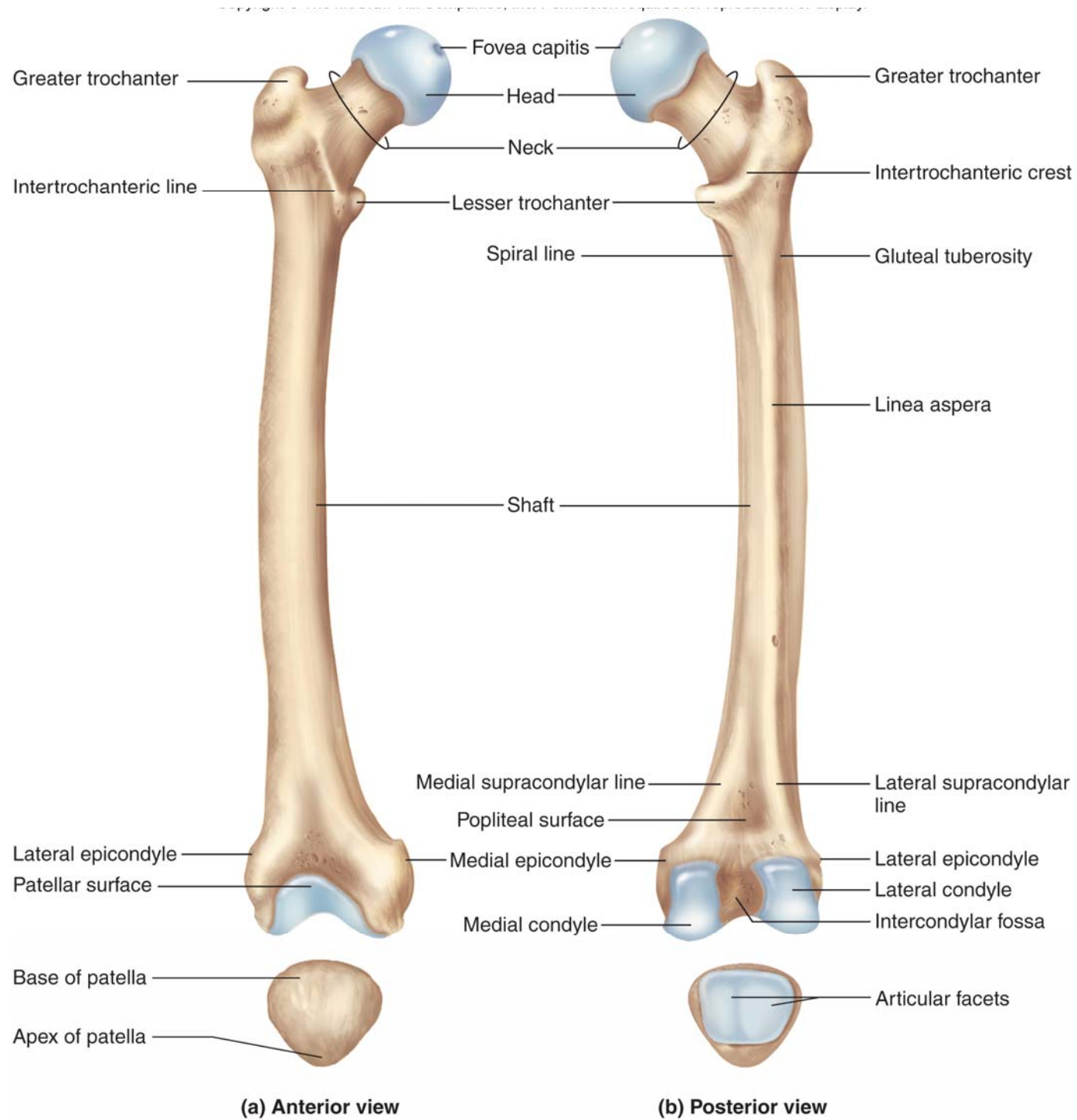
Name	Action	O: Origin I: Insertion	Innervation
Quadriceps Femoris (QUAD-rih-seps FEM-oh-ris)	Extends the knee, in addition to the actions of individual heads noted below	O: Varies; see individual heads below I: Patella; tibial tuberosity; lateral and medial condyles of tibia	Femoral nerve
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Vastus Medialis	Same as vastus lateralis	O: Femur at intertrochanteric line, spiral line, linea aspera, and medial supracondylar line I: See quadriceps femoris above	Femoral nerve
Vastus Intermedius	Extends knee	O: Anterior and lateral surfaces of femoral shaft I: See quadriceps femoris above	Femoral nerve
Sartorius⁷⁹	Aids in knee and hip flexion, as in sitting or climbing; abducts and laterally rotates thigh	O: On and near anterior superior spine of ilium I: Medial surface of proximal end of tibia	Femoral nerve

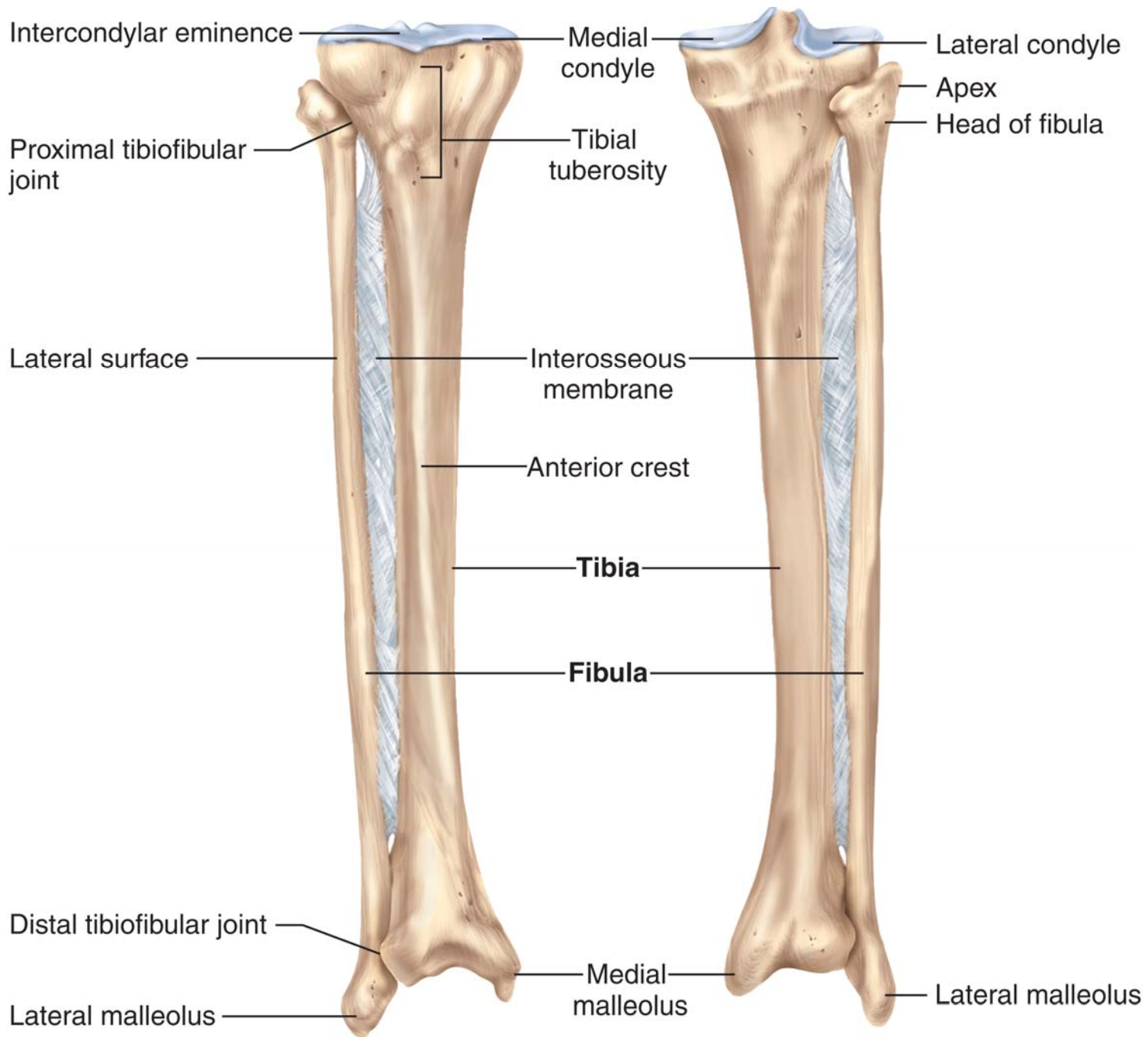


(a) Anterosuperior view



(b) Median section





(a) Anterior view

(b) Posterior view