

# V. MUSCULAR SYSTEM / LOWER LIMB

## MUSCLES OF ANTERIOR THIGH

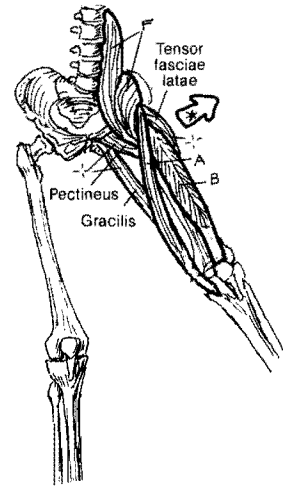
**SARTORIUS<sub>A</sub>**  
**QUADRICEPS FEMORIS<sub>F</sub>:**  
**RECTUS FEMORIS<sub>B</sub>**  
**VASTUS LATERALIS<sub>C</sub>**  
**VASTUS INTERMEDIUS<sub>D</sub>**  
**VASTUS MEDIALIS<sub>E</sub>**

**ILIOPSOAS<sub>F</sub>**

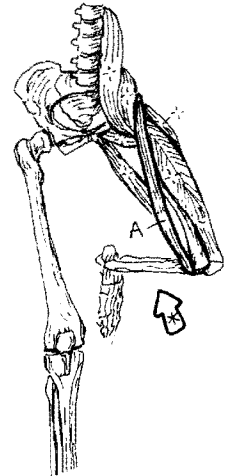
**PATELLAR  
 LIGAMENT<sub>G\*</sub>**

CN: The patellar ligament (G) is colored gray but the patella is left uncolored.  
 (1) Begin with the deep view of the thigh and then complete the superficial view.  
 (2) On the far left, color the portions of the quadriceps that are antagonists to the hamstring group. (3) Complete the action diagrams along the right margin.

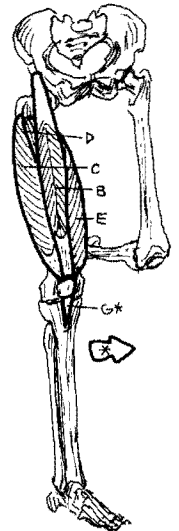
### FLEXORS OF THE HIP JOINT\*



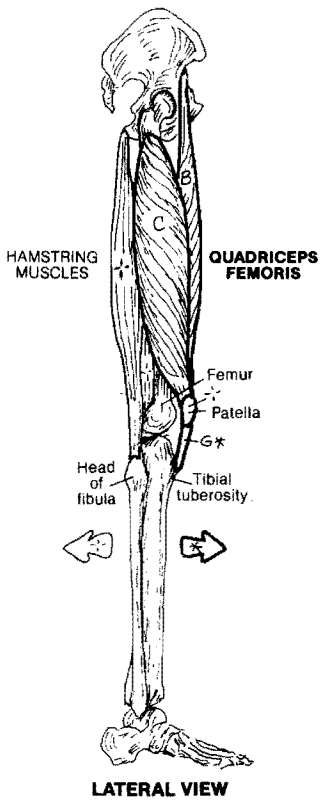
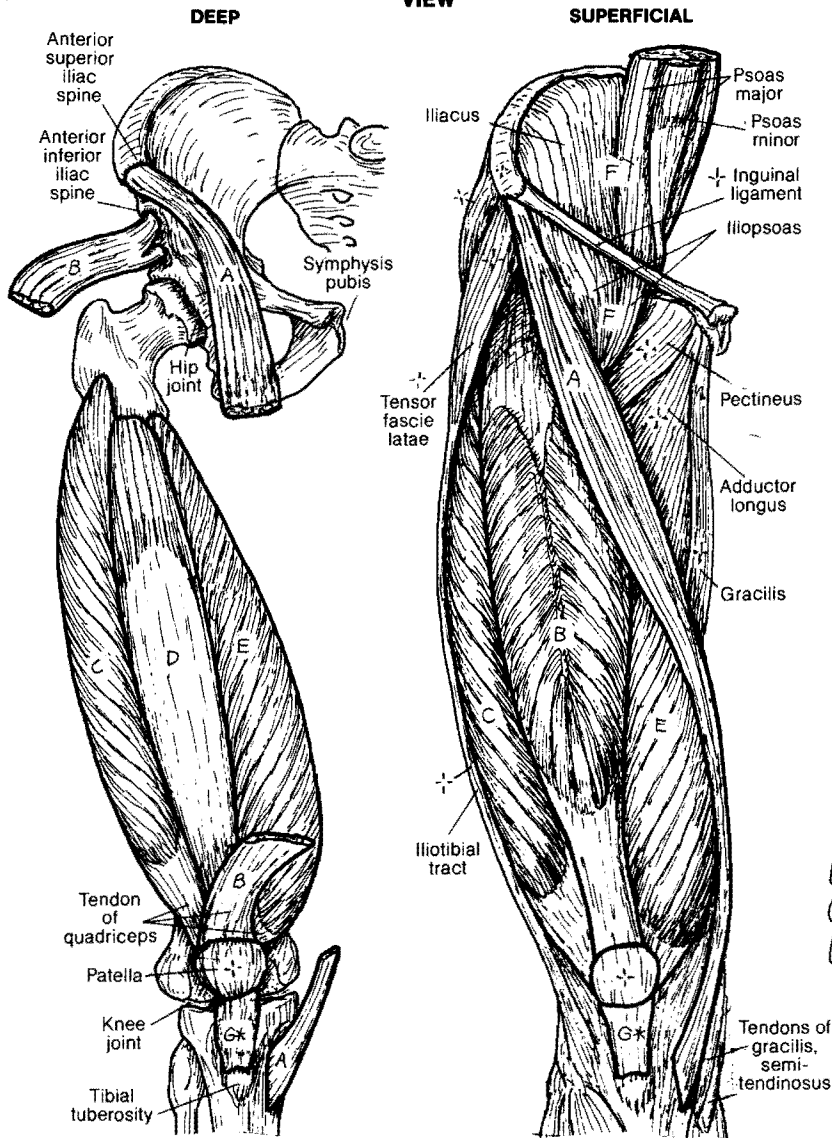
### FLEXOR OF THE KNEE JOINT\*



### EXTENSORS OF THE KNEE JOINT\*



### ANTERIOR VIEW



The *sartorius* ("tailor's" muscle; so-called because of the role of this muscle in enabling a crossed-legs sitting posture) is a flexor and lateral rotator of the hip joint, and a flexor of the knee joint, as you can infer from its illustrated attachments. The *quadriceps femoris* muscle arises from four heads. The *vastus medialis* and *lateralis* arise from the *linea aspera* on the posterior aspect of the femur; the *vastus intermedius* arises from the anterior femoral shaft. All four converge on to the superior aspect (base) of the patella to form the patellar tendon. Some tendon fibers continue over the patellar surface to join the ligament below. At the inferior aspect (apex) of the patella, the tendinous fibers continue to the tibial tuberosity.

The tendon between the patella and the tibial tuberosity is called the *patellar ligament*. *Rectus femoris* is a strong hip joint flexor, and is the only member of quadriceps to cross that joint. Quadriceps femoris is the only knee extensor. The significance of its role becomes crystal clear to those having experienced a knee injury; the muscles tend to atrophy and weaken rapidly with disuse, and "quad" exercises are essential to maintain structural stability of the joint. The *iliopsoas* is the most powerful flexor of the hip, having a broad thick muscle belly and attaching at the lesser trochanter at the proximal end of the femoral shaft. Recall Plate 42 for its posterior abdominal origin.