

The **muscles of the posterior leg** (calf) are arranged into deep and superficial compartments between which is a fascial septum (barrier): the deep transverse fascia (not shown). The four muscles of the deep compartment arise from the tibia, the fibula, and/or the intervening interosseous membrane (see the "Deep View" and the "Attachment Sites"). The **popliteus** is all by itself in the upper part of the deep compartment, where it flexes the knee joint and rotates the tibia. The **tibialis posterior** occupies the center position in the deep compartment. Its tendon swings to the big-toe side, wraps around the medial aspect of the foot, and inserts on a host of bones on the plantar surface of the foot (cuboid, cuneiforms, navicular, and the base of the metatarsals). It flexes and inverts the foot. The tendons of **flexors hallucis longus** and **digitorum longus** wrap around the medial arch to reach the plantar surface of the great toe and the plantar surface of the bones of the forefoot. The deep fascial compartments of the posterior leg muscles are fairly inelastic. Muscle swelling secondary to vascular insufficiency can result in serious muscle compression with loss of the muscles (compartment syndrome) in the absence of fascial (surgical) decompression.

You might want to spend some time with the illustrations on pages 63–65 and work to fully understand the disposition of these tendons that arise from anterior, lateral, and posterior leg muscles to insert on the plantar aspect of the foot. It can be confusing if you don't.

The superficial group (**gastrocnemius, soleus**) of muscles insert on the calcaneus by way of a common tendon, the tendocalcaneus (Achilles tendon; see Glossary). These muscles collectively lift the posterior calcaneus (heel) up in plantar flexion of the foot, leaving the toes to carry the weight of the body. The gastrocnemius crosses the knee joint and is therefore a flexor of that joint.

Plantaris is a small muscle that arises just above the lateral femoral condyle and continues distally as a variably narrow, thin, pencil-size tendon to insert in the tendocalcaneus just above the latter's insertion on the calcaneus. Players of court games (tennis, racquetball, squash, etc.) may become familiar with the tendon of this muscle when it "snaps" (more like "pops") under excessive tension during dorsiflexion (extension) of the ankle joint. Its loss is of no significant consequence.