

Posterior Thigh Muscles

The anatomy of the posterior thigh includes the biceps femoris, semimembranosus, semitendinosus and innervation from the sciatic nerve. These muscles work to flex the knee. The semitendinosus and semimembranosus act on internal rotation of the thigh along with thigh extension, while the biceps femoris also works to externally rotate the hip and knee.



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Innervation

Sciatic Nerve

Scythe-attack Nerve

The sciatic nerve is formed from the L4 to S3 segments of the sacral plexus, and is the longest nerve in the body. After exiting the pelvis, it travels down the posterior thigh to the popliteal fossa. The nerve travels in the posterior compartment of the thigh behind the adductor magnus muscle, and is itself in front of the one head of the biceps femoris muscle, which it innervates, along with the semimembranosus and semitendinosus.

Muscles

Biceps Femoris

Bi-cap Femur

The biceps femoris is a two headed muscle located on the back of thigh. It consists of two parts: the long head as the attachment from the ischium and the short head attached to the femur bone.

Long and Short Head

Long and Short Head

The biceps femoris has two heads of origin; one, the long head, arises from the lower and inner impression on the back part of the tuberosity of the ischium; the other, the short head, arises from the lateral lip of the linea aspera, between the adductor magnus and vastus lateralis.

Flex Knee

Knee Flexing

The biceps femoris muscles work to flex the knee.

Extend Hip

Extending Hip

Since the long head originates in the pelvis it is also involved in hip extension.

Laterally Rotate Hip

Laterally Rotating Hip

When the knee is semi-flexed, the biceps femoris in consequence of its oblique direction rotates the leg slightly outward, laterally.

Semitendinosus and Semimembranosus

Semi-truck-tendon and Semi-truck-membrane

The semitendinosus is a largely tendinous muscle. It lies medially to the biceps femoris, and covers the majority of the semimembranosus. It originates from the ischial tuberosity of the pelvis, and attaches to the medial surface of the tibia. Meanwhile, the semimembranosus muscle is flattened and broad. It is located underneath the the semitendinosus. It originates from the ischial tuberosity, but does so more superiorly than the semitendinosus and biceps femoris. It attaches to the medial tibial condyle.

Flex Knee**Knee Flexing**

Both muscles work to flex (bend) the knee.

Extend Thigh**Extending Thigh**

The semitendinosus and semimembranosus help to extend (straighten) the hip joint.

Medially Rotate Thigh and Leg**Medially Rotating Thigh and Leg**

These muscles also help medially rotate the tibia on the femur when the knee is flexed and medially rotate the femur when the hip is extended.