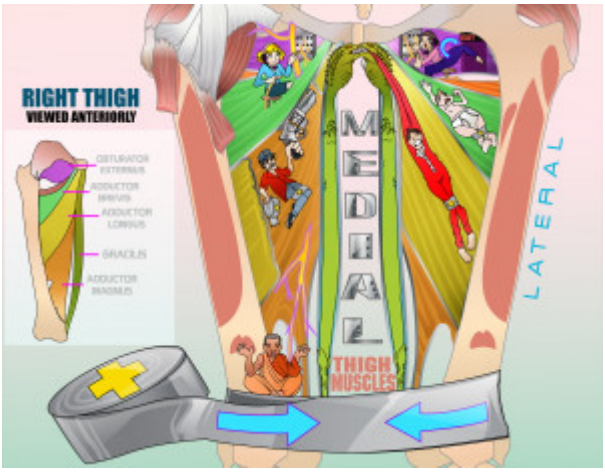
Medial Thigh Muscles

The muscles in the medial compartment of the thigh are collectively known as the hip adductors. There are five muscles in this group; gracilis, obturator externus, adductor brevis, adductor longus and adductor magnus. All the medial thigh muscles are innervated by the obturator nerve, which arises from the lumbar plexus (adductor magnus also by the tibial nerve). Arterial supply is via the obturator artery.



PLAY PICMONIC

Action

Adduct the Thigh
Add-duct-tape to adduct the Thigh
The muscles of the medial thigh all work to adduct the thighs, bringing them closer to each other medially. This is true of the adductor magnus, adductor brevis, adductor longus and gracilis. The obturator externus does not contribute to thigh adduction.

Innervation

Obturator Nerve
Operator Nerve
The obturator nerve is responsible for the sensory innervation of the skin of the medial aspect of the thigh. It is also responsible for the motor innervation of the adductor muscles of the lower extremity (obturator externus, adductor longus, adductor brevis, adductor magnus, gracilis). This nerve runs along the lateral wall of the lesser pelvis, above and in front of the obturator vessels, to the upper part of the obturator foramen. It then enters the thigh through the obturator canal.

Muscles

Adductor Magnus
Add-duct-tape Magnum
The adductor magnus is a large triangular muscle, situated on the medial side of the thigh. The adductor portion originates from the ramus of the pubis and are inserted into the rough line of the femur leading from the greater trochanter to the linea aspera, medial to the gluteus maximus. Part of the adductor magnus is considered a hamstring muscle, called the ischiocondylar portion.

Tibial Nerve
Tibetan Nerve
The hamstring portion of the adductor magnus (the ischiocondylar portion) is innervated by the tibial nerve.

Adductor Longus
Add-duct-tape in Long-Johns
The adductor longus is a large, flat muscle which works to adduct and medially rotate the thigh. It partially covers the adductor brevis and magnus. It forms the medial border of the femoral triangle. The adductor longus originates from the pubis, and expands into a fan shape, attaching broadly to the linea aspera of the femur.

Adductor Brevis
Add-duct-tape in Briefs
The adductor brevis works to adduct the thigh and is a short muscle, lying underneath the adductor longus. It lies in between the anterior and posterior divisions of the obturator nerve. Hence, it's used as an anatomical landmark to identify the aforementioned branches. It originates from the body of pubis and inferior pubic rami. It attaches to the linea aspera on the posterior surface of the femur, proximal to the adductor longus.

Gracilis

Grass-zilla

The gracilis adducts the thigh at the hip, and flexes the leg at the knee. It is the most superficial and medial of the muscles in this compartment. It crosses at both the hip and knee joints. It is sometimes transplanted into the hand or forearm to replace a damaged muscle. The gracilis originates from the inferior rami of the pubis, and the body of the pubis. Descending almost vertically down the leg, it attaches to the medial surface of the tibia, in between the tendons of the sartorius (anteriorly) and the semitendinosus (posteriorly).

Obturator Externus

Operator Exiting

The obturator externus works to laterally rotate the thigh and is one of the smaller muscles of the medial thigh. It originates from the membrane of the obturator foramen, and adjacent bone. It passes under the neck of femur, attaching to the posterior aspect of the greater trochanter.

Laterally Rotates Thigh

Laterally Rotating Thigh

The obturator externus is the only muscle from the medial thigh compartment to aid in lateral rotation of the thigh. It does not play a role in thigh adduction like the other muscles in this compartment.