Muscles of the Lower Extremity

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MUSCLE	INNERVATION	MAIN ACTIONS	MUSCLE GROUP
Abductor digiti minimi	Lateral plantar nerve	Abducts and flexes 5th digit	Foot - Layer 1
Abductor hallucis	Medial plantar nerve	Abducts and flexes 1st digit	Foot - Layer 1
Adductor brevis	Obturator nerve	Adducts thigh at hip, weak hip flexor	Thigh - Medial
Adductor hallucis	Deep branch of lateral plantar nerve	Adducts 1st digit, maintains transverse arch of foot	Foot - Layer 3
Adductor longus	Obturator nerve (anterior division)	Adducts thigh at hip	Thigh - Medial
Adductor magnus	Adductor part: obturator nerve Hamstring part: sciatic nerve (tibial division)	Adductor part: adducts and flexes thigh Hamstring part: extends thigh	Thigh - Medial
Articularis genus	Femoral nerve	Pulls suprapatellar bursa superiorly with extension of knee	Thigh - Anterior
3iceps femoris	Long head: sciatic nerve (tibial division) (L5–S2) Short head: sciatic nerve (common fibular division)	Flexes and laterally rotates leg, extends thigh at hip	Thigh - Posterior
Dorsal interossei (four muscles)	Lateral plantar nerve	Abduct 2nd through 4th toes, flex metatarsophalangeal joints, and extend phalanges	Foot - Layer 4
Extensor digitorum brevis and extensor hallucis brevis	Deep fibular nerve	Aids the extensor digitorum longus in extending of 4 medial digits at the metatarsophalangeal and interphalangeal joints	Foot - Dorsum
Extensor digitorum longus	Deep fibular nerve	Extends lateral four digits and dorsiflexes foot at ankle	Leg - Anterior
Extensor hallucis longus	Deep fibular nerve	Extends great toe, dorsiflexes foot at ankle	Leg - Anterior
Fibularis peroneus brevis	Superficial fibular nerve	Everts foot and weakly plantarflexes foot at ankle	Leg - Lateral
Fibularis peroneus longus	Superficial fibular nerve	Everts foot and weakly plantarflexes foot at ankle	Leg - Lateral
Fibularis peroneus tertius	Deep fibular nerve	Dorsiflexes foot at ankle and aids in eversion of foot	Leg - Anterior
Flexor digiti minimi brevis	Superficial branch of lateral plantar nerve	Flexes proximal phalanx of 5th digit	Foot - Layer 3
Flexor digitorum brevis	Medial plantar nerve	Flexes 2nd through 5th digits	Foot - Layer 1
Flexor digitorum longus	Tibial nerve	Flexes lateral four digits and plantarflexes foot at ankle; supports longitudinal arches of foot	Leg - Posterior
Flexor hallucis brevis	Medial plantar nerve	Flexes proximal phalanx of 1st digit	Foot - Layer 3
Flexor hallucis longus	Tibial nerve	Flexes all joints of great toe, weakly plantarflexes foot at ankle	Leg - Posterior
Gastrocnemius	Tibial nerve	Plantarflexes foot at ankle joint, assists in flexion of knee joint, raises heel during walking	Leg - Posterior
Gluteus maximus	Inferior gluteal nerve	Extends flexed thigh, assists in lateral rotation, and abducts thigh	Gluteal region
Gluteus medius	Superior gluteal nerve	Abducts and medially rotates thigh at hips; steadies pelvis on leg when opposite leg is raised	Gluteal region
	Superior gluteal nerve	Abducts and medially rotates thigh at hips; steadies pelvis on leg when	Gluteal region
Gluteus minimus	Superior glutear herve	opposite leg is raised	

Muscles of the Lower Extremity

Muscle Innervation Main actions Muscle Group
Illiacus (Illiopsoas) Femoral nerve Femoral nerve Femoral nerve Flexes thigh at hips and stabilizes hip joint, acts with pass major Thigh - Anterior
Inferior gamellus Nerve to quadratus femoris Laterally rotates extended thigh at the hip point, acts with psoas major Lumbricals Medial one: medial plantar nerve Loteral three: lateral plantar nerve Loterally rotates extended thigh, abducts femotis obturator nerve Obturator internus Nerve to obturator internus Percinieus Percinieus Percinieus Percinieus Percinieus Percinieus Percinieus Percinieus Percinieus Piriformis Ventral rami of LS, S1, S2 Laterally rotates extended thigh, abducts fecet thigh at hip obturator nerve Adducts and flexes thigh at hip obturator shouts and three will be abducts flexed thigh at hip obturator nerve Plantaris Ventral rami of LS, S1, S2 Laterally rotates extended thigh, abducts flexed thigh at hip obturator shouts and flexes thigh at hip obturator shouts and flexes thigh at hip obturator shouts and flexes thigh at hip of the plantar interossel (three muscles) Lateral plantar nerve Plantaris Tibial nerve Weakly assists gastrocnemius Weakly flexes knee and unlooks it by rotating femur on fixed tibia Leg - Posterior Weakly flexes knee and unlooks it by rotating femur on fixed tibia Leg - Posterior Prosterior Prosterior Prosterior abdominal wall trunk in stitup gosition, acting inferiorly, flexes ventebral column laterally; used to balance trunk in stitup gosition; acting inferiorly, flexes trunk Prosterior abdominal wall trunk in stitup gosition; acting inferiorly, flexes trunk Quadratus femoris Nerve to quadratus femoris Lateral plantar nerve Laterally rotates thigh at hip Corrects extended thigh, abducts flexes trunk Course trunk in stitup gosition; acting inferiorly, flexes trunk Course trunk in stitup gosition; acting inferiorly with lilacus, flexes trunk Course trunk in stitup gosition; acting inferiorly with lilacus, flexes trunk Course trunk in stitup gos
Lumbricals Medial one: medial plantar nerve Lateral three: lateral plantar nerve Dibturator externus Obturator nerve Obturator internus Nerve to obturator internus Adducts and fiexes thigh at hip Thigh - Medial Cluteal region Adducts flexed thigh at hip Thigh - Medial Cluteal region Adducts flexed thigh at hip Thigh - Medial Cluteal region Cluteal region Cluteal region Cluteal region Adduct digits (2-4) and flex metatrsophalanges in the adducts flexed thigh at hip Adduct digits (2-4) and flex metatrsophalanges Plantaris Tibial nerve Weakly assists gastrocnemius Leg - Posterior Weakly flexes knee and unlocks it by roating femur on fixed thia nerves Popliteus Tibial nerve (L4-51) Weakly flexes knee and unlocks it by roating femur on fixed thia plantar flexes of the first four lumbar nerve Acting superorly with illiacus, flexes trunk Posas major (Iliopsoas) Ventral rami of first four lumbar nerve Posas major (Iliopsoas) Ventral rami of first lumbar nerve Ventral rami of first lumbar nerve Laterally rotates thigh at hip Couracts for oblique pull of flexor digitorum longus tendon, thus assists Foot - Layer 2 Thigh - Anterior
Detail one: metal paintain nerve Diright
Obturator nerve of femur in acetabulum Thigh - Medial Obturator internus Nerve to obturator internus abducts flexed thigh at hip Gluteal region obturator nerve Adducts and flexes thigh at hip Thigh - Medial Pectineus Femoral nerve and sometimes obturator nerve Piriformis Ventral rami of LS, S1, S2 Laterally rotates extended thigh, abducts flexed thigh at hip Adducts flexed thigh at hip Adducts, flexed thigh at hip Adducts, flexed to Balance trunk in sitting position; acting inferiorly, flexes vertebral column laterally, used to balance trunk in sitting position; acting inferiorly with iliacus, flexes trunk Psoas major (Iliopsoas) Ventral rami of first lumbar nerve Column laterally used to balance trunk in sitting position; acting inferiorly with iliacus, flexes trunk Quadratus femoris Nerve to quadratus femoris Laterally rotates thigh at hip joint Gluxeal region Quadratus plantae Lateral plantar nerve Column laterally used to balance trunk in sitting position; acting inferiorly with iliacus, flexes trunk Corrects for oblique pull of flexor digitorum longus tendon, thus assists foot - Layer 2 in flexion of toes In flexion of toes Extends leg at knee joint and flexes thigh at hip joint flexes hip; flexes knee joint and flexes thigh at hip joint flexes hips hip intores the plantar flexes thigh at hip joint flexes hips hip into the p
Pectineus Femoral nerve and sometimes obturator internus phiriformis Ventral rami of L5, S1, S2 Laterally rotates extended thigh, abducts flexed thigh at hip Adduct digits (2—4) and flex metatarsophalangeal joint and extend Foot - Layer 4 phalanges Plantaris Tibial nerve Weakly assists gastrocnemius Leg - Posterior Weakly flexes knee and unlocks it by rotating femur on fixed tibia Posas major Ventral rami of first four lumbar nerves Proposas major (Iliopsoas) Ventral rami of first lumbar nerve Ventral rami of first lumbar nerve Acting superiorly with iliacus, flexes hip; acting inferiorly, flexes vertebral column laterally; used to balance trunk in sitting position; acting inferiorly with iliacus, flexes hip; acting inferiorly, with iliacus, flexes trunk Posas major (Iliopsoas) Ventral rami of first lumbar nerve Proposas major (Iliopsoas) Ventral rami of first lumbar nerve Acting superiorly with iliacus, flexes trunk Coulomn laterally; used to balance trunk in sitting position; acting inferiorly, with iliacus, flexes trunk Thigh - Anterior
Pectineus Femoral nerve and sometimes obturator nerve la Adduct singual femorator sextended thigh, abducts flexed thigh at hip abducts flexed thigh at hip Adduct digits (2–4) and flex metatarsophalangeal joint and extend poot - Layer 4 phalanges Plantaris Tibial nerve Weakly assists gastrocnemius Leg - Posterior Popliteus Tibial nerve (L4–51) Weakly flexes knee and unlocks it by rotating femur on fixed tibia Posas major Ventral rami of first four lumbar nerves Ventral rami of first four lumbar nerves Acting superiorly with iliacus, flexes hip; acting inferiorly, flexes vertebral column laterally; used to balance trunk in sitting position; acting inferiorly with iliacus, flexes trunk Posas major (Iliopsoas) Ventral rami of first lumbar nerve Acting superiorly with iliacus, flexes hip; acting inferiorly, flexes vertebral column laterally; used to balance trunk in sitting position; acting inferiorly with iliacus, flexes trunk Quadratus femoris Nerve to quadratus femoris Laterally rotates thigh at hip Gluteal region Quadratus plantae Lateral plantar nerve Lateral plantar nerve Extends leg at knee joint and flexes thigh - Anterior
Plantari interossei (three muscles) Lateral plantar nerve Adduct digits (2–4) and flex metatarsophalangeal joint and extend Foot - Layer 4 phalanges Plantaris Tibial nerve Weakly assists gastrocnemius Leg - Posterior Weakly flexes knee and unlocks it by rotating femur on fixed tibia Popliteus Ventral rami of first four lumbar nerve Posas major Ventral rami of first four lumbar nerve Acting superiorly with iliacus, flexes hip; acting inferiorly, flexes vertebral column laterally, used to balance trunk in sitting position; acting inferiorly, flexes vertebral column laterally, used to balance trunk in sitting position; acting inferiorly, flexes vertebral column laterally, used to balance trunk in sitting position; acting inferiorly, flexes vertebral column laterally, used to balance trunk in sitting position; acting inferiorly, flexes vertebral column laterally, used to balance trunk in sitting position; acting inferiorly, flexes vertebral column laterally, used to balance trunk in sitting position; acting inferiorly, flexes trunk Acting superiorly with iliacus, flexes frunk Acting superiorly with iliacus, flexes frunk Acting superiorly with iliacus, flexes trunk Acting superiorly with iliacus, flexes frunk Acting superiorly with iliacus, flexes trunk Acting superiorly with
Plantar interossei (three muscles) Lateral plantar nerve phalanges metatarsophalangeal joint and extend Foot - Layer 4 phalanges Plantaris Tibial nerve Weakly assists gastrocnemius Leg - Posterior Popliteus Tibial nerve (L4-S1) Weakly flexes knee and unlocks it by rotating femur on fixed tibia Leg - Posterior Psoas major Ventral rami of first four lumbar nerves Acting superiorly with iliacus, flexes hip; acting inferiorly, flexes vertebral column laterally; used to balance trunk in sitting position; acting inferiorly, flexes vertebral column laterally; used to balance trunk in sitting position; acting inferiorly with iliacus, flexes hip; acting inferiorly, flexes vertebral column laterally; used to balance trunk in sitting position; acting inferiorly with iliacus, flexes trunk Thigh - Anterior Quadratus femoris Nerve to quadratus femoris Laterally rotates thigh at hip Gluteal region Quadratus plantae Lateral plantar nerve Corrects for oblique pull of flexor digitorum longus tendon, thus assists in flexion of toes Foot - Layer 2 Rectus femoris (quadriceps) Femoral nerve Extends leg at knee joint and flexes thigh at hip joint Thigh - Anterior Sartorius Femoral nerve Abducts, laterally rotates, and flexes thigh; flexes knee joint Thigh - Anterior
Popliteus Tibial nerve (L4–51) Weakly flexes knee and unlocks it by rotating femur on fixed tibia Leg - Posterior Acting superiorly with iliacus, flexes hip; acting inferiorly, flexes vertebral column laterally; used to balance trunk in sitting position; acting inferiorly with iliacus, flexes hip; acting inferiorly, flexes vertebral column laterally; used to balance trunk in sitting position; acting inferiorly, flexes vertebral column laterally; used to balance trunk in sitting position; acting inferiorly, flexes vertebral column laterally; used to balance trunk in sitting position; acting inferiorly, flexes trunk Posterior abdominal wall Acting superiorly with iliacus, flexes hip; acting inferiorly, flexes vertebral column laterally; used to balance trunk in sitting position; acting inferiorly with iliacus, flexes trunk Quadratus femoris Nerve to quadratus femoris Laterally rotates thigh at hip Gluteal region Corrects for oblique pull of flexor digitorum longus tendon, thus assists in flexion of toes in flexion of toes Extends leg at knee joint and flexes thigh at hip joint Acting superiorly with iliacus, flexes trunk Thigh - Anterior Thigh - Anterior Thigh - Anterior
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Psoas major Ventral rami of first four lumbar nerves Acting superiorly, flexes vertebral column laterally; used to balance trunk in sitting position; acting inferiorly with iliacus, flexes hip; acting inferiorly, flexes vertebral column laterally; used to balance trunk in sitting position; acting inferiorly, flexes vertebral column laterally; used to balance trunk in sitting position; acting inferiorly, flexes vertebral column laterally; used to balance trunk in sitting position; acting inferiorly with iliacus, flexes trunk Quadratus femoris Nerve to quadratus femoris Laterally rotates thigh at hip Gluteal region Corrects for oblique pull of flexor digitorum longus tendon, thus assists in flexion of toes Rectus femoris (quadriceps) Femoral nerve Extends leg at knee joint and flexes thigh at hip joint Abducts, laterally rotates, and flexes thigh; flexes knee joint Thigh - Anterior Thigh - Anterior
Psoas major (Iliopsoas) Ventral rami of first lumbar nerve column laterally; used to balance trunk in sitting position; acting inferiorly with iliacus, flexes trunk Quadratus femoris Nerve to quadratus femoris Laterally rotates thigh at hip Corrects for oblique pull of flexor digitorum longus tendon, thus assists in flexion of toes Rectus femoris (quadriceps) Femoral nerve Abducts, laterally rotates, and flexes thigh - Anterior
Quadratus plantae Lateral plantar nerve digitorum longus tendon, thus assists foot - Layer 2 in flexion of toes Rectus femoris (quadriceps) Femoral nerve Extends leg at knee joint and flexes thigh at hip joint Abducts, laterally rotates, and flexes thigh; flexes knee joint Thigh - Anterior Thigh - Anterior
Quadratus plantae Lateral plantar nerve digitorum longus tendon, thus assists in flexion of toes Foot - Layer 2 Rectus femoris (quadriceps) Femoral nerve Extends leg at knee joint and flexes thigh at hip joint Thigh - Anterior Sartorius Femoral nerve Abducts, laterally rotates, and flexes thigh; flexes knee joint Thigh - Anterior
Sartorius Femoral nerve thigh at hip joint Abducts, laterally rotates, and flexes thigh; flexes knee joint Thigh - Anterior
Sartorius Femoral nerve Abducts, laterally rotates, and flexes thigh; flexes knee joint Thigh - Anterior
Semimembranosus Sciatic nerve (tibial division) Flexes leg, extends thigh Thigh - Posterior
Semitendinosus Sciatic nerve (tibial division) Flexes leg, extends thigh Thigh - Posterior
Soleus Tibial nerve Plantarflexes foot at ankle, stabilizes Leg - Posterior
Superior gemellus Nerve to obturator internus Laterally rotates extended thigh at the hip Gluteal region
Abducts, medially rotates, and flexes Tensor fasciae latae Superior gluteal nerve thigh at hip; helps to keep knee Gluteal region extended
Tibialis anterior Deep fibular nerve Dorsiflexes foot at ankle and inverts foot Leg - Anterior
Tibialis posterior Tibial nerve Plantarflexes foot at ankle and inverts Leg - Posterior foot
Vastus intermedius (quadriceps) Femoral nerve Extends leg at knee joint Thigh - Anterior
Vastus lateralis (quadriceps) Femoral nerve Extends leg at knee joint Thigh - Anterior