

# Knee

Femur, Tibia, and Patella

2 Articulations - Tibiofemoral + Patellofemural

## Extensors

Muscle	Origin	Insertion	Nerve	Action
(Quadricep) Rectus Femoris	Anterior Inferior Iliac Spine	Patellar Tendon - Tibial Tuberosity	Femoral	Flexor (Hip) Extend (Knee)
Vastus Lateralis	Upper Half of Shaft Femur	Patellar tendon on Tinal Tubercle	Femoral	Extend (Knee)
Vastus Intermedius	Upper Half of Shaft Femur	Patellar tendon on Tinal Tubercle	Femoral	Extend (Knee)
Vastus Medialis	Upper Half of Shaft Femur	Patellar tendon on Tinal Tubercle	Femoral	Extend (Knee)

## Flexors

Muscle	Origin	Insertion	Nerve	Action
Hamstrings: Biceps Femoris	Ischial Tub + Back of Femur	Back Med. Cond. of Tibia	Sciatic	Flex (Knee) Extends (Hip) Lat. Rotate (Shank)
Semitendinosus	Ischial Tub	Upper Med. Surf of shaft of Tibia	Sciatic	Flex (Knee) Extends (Hip) Med. Rotate (Shank)
Semimembranosus	Ischial Tub	Back Med Cond. Tibia	Sciatic	Flex (Knee) Extends (Hip) Med. Rotate (Shank)
popliteus	Lateral Condyle Femur	Proximal Tibia	Tibial	Flex (Knee) M. Rt. to Unlock (Knee)
gastrocnemius	Lat and Med Condyle of Femur	Calcaneus by achilles tendon	Tibial	Flex (Knee) Plantar Flex (Foot@Ankle)
plantaris	Femur Superior to Lat Condyle	Calcaneus by achilles tendon	Tibial	Flex (Knee) Plantar Flex (Foot@Ankle)

## PES Anserinus

Muscle	Origin	Insertion	Nerve	Action
Sartorius	Anterior Superior Iliac Spine	Upper/Medial Surface of Tibia	Femoral	Flexor (Hip) Flexor (Knee) Assist Med. Rotate (Hip)
Gracilis	Lower Margin Pubic	Upper/Medial Surface of Tibia	Obturator	Adduction (Hip) Assist. Flexion (Knee)

Semitendinosus	Ischial Tub	Upper/Medial Surface of Tibia	Sciatic	Medial Rotate (Knee) Flex (Knee) Extends (Hip) Med. Rotate (Shank)
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**Lateral Rotation (Only Occurs when Knee Flexed)**

<u>Muscle</u>	<u>Origin</u>	<u>Insertion</u>	<u>Nerve</u>	<u>Action</u>
Biceps Femoris	Ischial Tub + Back of Femur	Back Med. Cond. of Tibia	Sciatic	Flex (Knee) Extends (Hip) Lat. Rotate (Shank)