

Knee Muscle Diagram

HIP AND THIGH MUSCLES ACTING ON THE KNEE

Iliacus: A hip flexor that helps lift the thigh; tightness can affect knee alignment.

Pectineus: Assists in thigh flexion and adduction. Strains may occur with overuse or sudden movements.

Psoas major: A deep hip flexor that helps lift the leg and stabilize the spine. Tightness can lead to altered knee mechanics.

Tensor fasciae latae (TFL): Helps stabilize the knee through the iliotibial band. Overuse can lead to IT band syndrome.

Rectus femoris: One of the quadriceps muscles that also helps flex the hip. Commonly strained in kicking sports.

Vastus intermedius: Lies beneath the rectus femoris and helps extend the knee. Can be sore from overuse.

Vastus lateralis: The largest part of the quadriceps; located on the outer thigh. Often targeted in strength training and prone to tightness.

Vastus medialis: Inner part of the quadriceps that helps align the kneecap. Weakness can contribute to patellar tracking issues.

Sartorius: The longest muscle in the body; it helps flex the knee and hip. Can be strained with sudden twisting movements.

Adductor longus: Brings the thigh inward. Groin pulls are common injuries here.

Gracilis: A thin inner thigh muscle that helps in knee flexion and thigh adduction. Can be strained with side-to-side motions.

Adductor magnus: A powerful inner thigh muscle important for stabilizing movement. Susceptible to strain during forceful leg movements.

Gastrocnemius: The calf muscle that also helps bend the knee. Can be strained from sprinting or jumping.

Tibialis anterior: Located in the front of the lower leg; it helps lift the foot. Overuse can cause shin splints, which affect knee alignment.

LIGAMENTS AND TENDONS

Quadriceps: A group of four muscles at the front of the thigh that straighten the knee. Overuse or sudden force can strain or tear them.

Articular cartilage: Smooth tissue that covers the ends of bones in the knee joint, allowing smooth movement. It can wear down over time, leading to arthritis or pain.

Lateral collateral ligament (LCL): Supports the outer side of the knee and resists inward bending. It can be injured by direct blows to the inner knee.

Anterior cruciate ligament (ACL): Stabilizes the knee by preventing the shinbone from sliding forward. Often torn during quick pivots or landings.

Medial collateral ligament (MCL): Provides stability to the inner knee. It's commonly injured from a blow to the outside of the leg.

Posterior cruciate ligament (PCL): Prevents the shinbone from sliding backward. Injuries often happen during falls or car accidents.

Menisci: Two C-shaped cartilage pads that cushion and stabilize the knee joint. Twisting or impact injuries can cause tears.

Patellar tendon: Connects the kneecap to the shinbone and helps extend the leg. Can be strained or torn from jumping or falling.