

## Anterior Thigh Muscles

The anterior thigh compartment muscles are innervated by the femoral nerve, and as a general rule (with some exceptions) work to extend the knee joint. It is comprised of the iliopsoas, sartorius, pectineus, and quadriceps femoris muscles.



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### Innervation

#### Femoral Nerve

##### [Femur Nerve](#)

The muscles of the anterior thigh compartment are innervated by the femoral nerve. It is the largest branch of the lumbar plexus, and originates from the dorsal divisions of the ventral rami of the 2nd, 3rd, and 4th lumbar nerves. The femoral nerve functions to extend the knee, and is responsible for sensation over the anterior and medial aspects of the thigh, medial shin, and arch of the foot.

### Muscles

#### Iliopsoas

##### [Island-sewn-ass](#)

The term iliopsoas refers to the combination of the psoas major and iliacus muscles, which are indistinguishable in the thigh. The iliopsoas is the strongest of the hip flexors and is paramount to walking, running and standing.

#### Psoas Innervated by L1-3

##### [Sewn-ass innervated by \(L\) Lion 1-3](#)

The iliacus is innervated by the femoral nerve, while the psoas major is innervated by the anterior rami of L1-3.

#### Sartorius

##### [Shark-Notorious](#)

The sartorius runs down the length of the thigh in the anterior compartment and is the longest muscle in the body. It arises from the ASIS and inserts in the medial surface of the tibia. This muscle can be subject to pes anserine bursitis, an inflammatory condition of the medial portion of the knee. It usually occurs in athletes from overuse and is characterized by pain, swelling and tenderness.

#### Pectineus

##### [Packed-in the Pectineus](#)

This is a flat, quadrangular muscle found in the anterior, medial thigh. Its primary function is to flex the hip, but it also adducts. The pectineus originates from the pectineal line on the anterior pelvis and inserts in the posterior femur, on the pectineal line. Note that pectineus is sometimes classified as a medial thigh muscle given its role in hip flexion and adduction.

### Quadriceps Femoris

#### Vastus Lateralis

##### [Vested-muscle-man on Ladder](#)

There are three vastus muscles in the quadriceps. The vastus lateralis lies on the lateral side and helps to extend the knee.

### **Vastus Intermedius**

[Vested-muscle-man In-the-middle](#)

There are three vastus muscles in the quadriceps. The vastus intermedius lies deep and intermediately to the other two vastus muscles and helps to extend the knee. It cannot be seen without dissection of the rectus femoris muscle.

### **Vastus Medialis**

[Vested-muscle-man with Metal](#)

There are three vastus muscles in the quadriceps. The vastus medialis lies on the medial side of the femur and helps to extend the knee.

### **Rectus Femoris**

[Rectangle Femur](#)

The rectus femoris is one of the four quadriceps muscles, all of which attach to the patella. It is the most superficial of the quadriceps muscles and originates from the ilium. Because it crosses both the knee and hip joints, it flexes the leg at the hip joint and extends the knee.