Knee Joint

Joint Structure

Type of Joint
Articulations
Knee Joint

**Ligaments**
- Fibular collateral ligament
- Tibial collateral ligament
- Anterior cruciate ligament
- Posterior cruciate ligament
Menisci

Medial meniscus
Lateral meniscus
Knee Joint

Movements at the Knee

Flexion
Extension
Rotation
Anterior Thigh Compartment

Vastus intermedius
Anterior Thigh Compartment

Vastus intermedius
Anterior Thigh Compartment

**Vastus intermedius**

**Attachments**

- **Origin**
- **Insertion**
Anterior Thigh Compartment

**Vastus intermedius**

Topography
Anterior Thigh Compartment

Vastus intermedius

Topography
Anterior Thigh Compartment

Vastus lateralis
Anterior Thigh Compartment

Vastus lateralis
Anterior Thigh Compartment

Vastus lateralis
Vastus lateralis

Attachments

Origin

Insertion
Anterior Thigh Compartment

Vastus lateralis

Attachments

Origin
Insertion
Anterior Thigh Compartment

Vastus lateralis

Topography
Anterior Thigh Compartment

Vastus lateralis

Topography
Anterior Thigh Compartment

Vastus lateralis

Topography
Anterior Thigh Compartment

Vastus medialis
Anterior Thigh Compartment

Vastus medialis
Anterior Thigh Compartment

Vastus medialis
Vastus medialis

Attachments

Origin
Insertion
Anterior Thigh Compartment

**Vastus medialis**

Attachments

Origin

Insertion
Anterior Thigh Compartment

**Vastus medialis**

Topography
Anterior Thigh Compartment

Vastus medialis

Topography
Anterior Thigh Compartment

*Rectus femoris*
Anterior Thigh Compartment

Rectus femoris
Anterior Thigh Compartment

**Rectus femoris**

**Attachments**

*Origin*

*Insertion*
Anterior Thigh Compartment

Rectus femoris

Topography
Anterior Thigh Compartment

**Rectus femoris**

Topography
Anterior Thigh Compartment

Articularis genus
Anterior Thigh Compartment

Articularis genus
Articularis genus

Attachments

Origin
Insertion
Anterior Thigh Compartment

Articularis genus

Topography
Anterior Thigh Compartment

Articularis genus

Topography
Anterior Thigh Compartment

Sartorius
Anterior Thigh Compartment

Sartorius
Anterior Thigh Compartment

**Sartorius**

**Attachments**

- **Origin**
- **Insertion**
Anterior Thigh Compartment

Sartorius

Topography
Anterior Thigh Compartment

**Sartorius**

Topography
Anterior Thigh Compartment

**Sartorius**

Topography
Anterior Thigh Compartment

Summary
Summary
Anterior Thigh Compartment

Summary
Anterior Thigh Compartment

Summary

Topography
Anterior Thigh Compartment

Summary

Topography
Muscle Innervation

Femoral nerve
Anterior compartment and pectineus
Posterior Thigh Compartment

Biceps femoris
Posterior Thigh Compartment

Biceps femoris
Posterior Thigh Compartment

Biceps femoris
Posterior Thigh Compartment

**Biceps femoris**

**Attachments**

- **Origin**
- **Insertion**
Posterior Thigh Compartment

**Biceps femoris**

**Attachments**

- **Origin**
- **Insertion**
Posterior Thigh Compartment

Biceps femoris

Topography
Posterior Thigh Compartment

**Biceps femoris**

Topography
Posterior Thigh Compartment

Semimembranosus
Posterior Thigh Compartment

Semimembranosus
Posterior Thigh Compartment

Semimembranosus
Inferior Limb

Posterior Thigh Compartment

Semimembranosus

Attachments

Origin

Insertion
Posterior Thigh Compartment

Semimembranosus

Topography
Posterior Thigh Compartment

Semimembranosus

Topography
Posterior Thigh Compartment

Semitendinosus
Posterior Thigh Compartment

Semitendinosus
Posterior Thigh Compartment

Semitendinosus
Posterior Thigh Compartment

**Semitendinosus**

Attachments
- **Origin**
- **Insertion**
Posterior Thigh Compartment

**Semitendinosus**

**Attachments**
- **Origin**
- **Insertion**
Posterior Thigh Compartment

Semitendinosus

Topography
Posterior Thigh Compartment

Semitendinosus

Topography
Posterior Thigh Compartment

Summary
Posterior Thigh Compartment

Summary
Posterior Thigh Compartment

Summary

Topography
Posterior Thigh Compartment

Summary
Topography
Inferior Limb Innervation

**Muscle Innervation**

- Common fibular nerve
- Short head of biceps femoris
Inferior Limb Innervation

**Muscle Innervation**

Tibial nerve
- Posterior thigh compartment muscles
- Posterior crural compartment muscles
Summary of the Thigh Muscles

Muscle Views
Thigh Topography and Blood Supply

**Femoral Triangle**

Boundaries
Inguinal ligament
Thigh Topography and Blood Supply

Femoral Triangle

Boundaries
Sartorius
Femoral Triangle

Boundaries
Adductor longus
Thigh Topography and Blood Supply

**Femoral Triangle**

Boundaries
Femoral Triangle

Floor

Pectineus
Thigh Topography and Blood Supply

**Femoral Triangle**

*Floor*

*Iliopsoas*
Thigh Topography and Blood Supply

Femoral Triangle

Floor
Femoral Vessels and Nerves

Femoral nerve
Femoral Vessels and Nerves

Femoral artery
Deep femoral artery
Femoral Vessels and Nerves

Femoral vein
Deep femoral vein
Great saphenous vein
Femoral Vessels and Nerves
Inguinal lymph nodes and vessels
Thigh Topography and Blood Supply

**Adductor Canal**

Boundaries

Key muscle - Sartorius
Adductor Canal

Contents

- Femoral artery
- Femoral vein
- Saphenous nerve

Inferior Limb

Thigh Topography and Blood Supply
Inferior Limb

Thigh Topography and Blood Supply

Adductor Hiatus
Thigh Topography and Blood Supply

**Popliteal Fossa**

Boundaries
Popliteal Fossa

Contents
Popliteal artery
Popliteal Fossa

Contents

Popliteal vein
Small saphenous vein
Anatomical Pulley Concept

Anatomical Pulley Design
Anatomical Pulley Concept

Functional Significance of Pulley
Anatomical Pulley Concept

Anatomical Tripod/Pes Anserina
Talocrural (Ankle) Joint

Joint Structure

Type of joint
Articulations
Ligaments
Talocrural (Ankle) Joint

Movements of Ankle Joint

Dorsal flexion
Movements of Ankle Joint

Plantar flexion
Tarsal Joints

**Various Joints**

- Subtalar joint
- Transverse tarsal joint
- Talocalcaneonavicular joint
- Calcaneocuboid joint
Tarsal Joints

**Movements of Tarsal Joints**

Inversion
Tarsal Joints

Movements of Tarsal Joints

Eversion
Joints of the Toes

Various Joints

Compare to the hand