Inferior Extremity
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Main Function

- Support
- Locomotion (propulsion)
- Weight Transmission
• Gluteal region
• Hip (coxa)
• buttock (natis)

• Three segments
  ❖ Thigh (proximal)
  ❖ Leg (middle)
  ❖ Foot (distal)

• Knee
  • Anterior (patellar) region
  • Posterior region (popliteal fossa)

• Foot
  • Upper surface (dorsum)
  • Sole (Planter) surface
Inferior extremity – Bones & joints

Hip Girdle
• Hip bones

Thigh
• Femur

Knee
• Patella (knee cap)

Leg
• Tibia
• Fibula

Foot
• 7 Tarsals
• 5 Metatarsals
• 14 Phalanges

Three principal synovial joints
• Hip joint
• Knee joint
• Ankle joint
• & smaller joints of foot
Femur
Anterior View

- Greater trochanter
- Head
- Fovea of head
- Neck
- Lesser trochanter
- Proximal line of capsular reflection
- Intertrochanteric line
- Body (shaft)
- Distal line of capsular reflection
- Adductor tubercle
- Lateral epicondyle
- Medial epicondyle
- Lateral condyle
- Medial condyle
- Patellar surface
Bones of Foot
Dorsal View  (Rt Foot)

Lateral View – Rt Foot

7 Tarsals
5 Metatarsals
14 Phalanges

Medial View – Rt Foot
Lower Limb - Movements
Fascia lata- deep fascia of thigh

Attachments

Upper

- On front to iliac crest
- Inguinal ligament
- Pubis, pubic arch, ischial tuberosity
- Laterally thickened to form ilio-tibial tract
- Sacrum, coccyx, sacro-tuberous lig. through gluteal fascia

Lower

- Patella, tibial condyles & head of fibula
Modifications of deep fascia

- Saphnous opening
- Iliotibial tract
- Intermuscular septums

Near ankle joint
- Retinaculum – Flexor, Extensor, Peroneal

Sole
- Planter aponeurosis
- Deep transverse metatarsal ligaments
- Fibrous flexor sheath (toes)
Saphnous opening

- Oval aperture in deep fascia of thigh
- 3-4 cm below & lateral to pubic tubercle
- 3 cm long, 1.5 cm wide
- Covered by cribriform fascia
- Sharp lateral & inferior margin (falciform)
Inter-muscular compartments

Thigh compartments

- Anterior (extensor) – femoral Nerve
- Posterior (flexor, Hamstring) – sciatic (tibial division)
- Medial (adductor) – obturator Nerve
Leg
- Anterior (extensor) – deep peroneal
- Lateral (peroneal) – superficial peroneal
- Posterior (Flexor) (superficial & deep) – sciatic (tibial)
umbilicus

lymph from lower half of anal canal

iliac crest

horizontal group of superficial inguinal lymph nodes

vertical group of superficial inguinal lymph nodes

popliteal lymph nodes

femoral canal

external iliac nodes

superficial inguinal nodes

saphenous opening
Lumbar Plexus
Schema
Femoral Sheath

- Funnel shaped extension of fascial lining of abdominal cavity
- surrounding upper 4 cms of femoral artery & vein
Femoral Sheath

Walls

- Ant. wall – fascia transversalis
- Post. Wall – fascia iliaca
- Lateral wall longer & vertical
- Divided in three compartments by two vertical antero-post. septa
Femoral canal & ring

- Medial compartment of femoral sheath
- Conical in shape, wide above, narrow below
- Base or upper end called Femoral Ring
- Closed by condensation of extraperitoneal tissue called femoral septum
- Wider in females due to wider pelvis & small femoral vessels
Femoral canal & ring

- Oval shaped
- 1 inch diameter

**Boundary**
- Ant. - inguinal ligament
- Post. - pectineus & covering fascia
- Laterally - IM septum
- Medially - Lacunar ligament

**Content**
- Lymph node (cloquet or Rossenmuller) with lymphatics & areolar tissue
- Drain glans penis in males
- Clitoris in females

**Inguinal Region**
Dissection - Posterior [Internal] View
Bony Attachments of Muscles of Hip and Thigh

Anterior View