Lower limb

Muscles of the foot

- Sole
  - 1st layer
    - Abductor hallucis
    - Flexor digitorum brevis
    - Abductor digiti minimi
  - 2nd layer
    - Quadratus plantae
    - Lumbricals
    - Flexor digitorum longus tendon
    - Flexor hallucis longus tendon
  - 3rd layer
    - Flexor hallucis brevis
    - Adductor hallucis
    - Flexor digiti minimi brevis
  - 4th layer
    - Interossei "3 plantar, 4 dorsal"
    - Peroneus longus tendon
    - Tibialis posterior tendon
- Dorsum
  - Extensor digitorum brevis
    - Origin
      - Anterior part of upper surface of calcaneum
      - Inferior extensor retinaculum
    - Insertion
      - By four tendons into the proximal phalanx of big toe and 2nd, 3rd and 4th toes
    - Nerve supply
      - Deep & superficial peroneal nerve
    - Action
      - Extension of toes

Muscles of the thigh

- Anterior
  - Extensors of knee
    - Quadriceps femoris
      - Origin
        - Rectus femoris: Anterior inferior iliac spine
        - Vastus intermedius: Front of shaft of femur
        - Vastus medialis: Posterior border of femur
        - Vastus lateralis: Posterior border of femur
      - Insertion: From patella to tuberosity of tibia through ligamentum patellae
      - Nerve supply: Femoral nerve
      - Action: Extension of knee
  - Flexors of hip
    - Sartorius
      - Origin: Anterior surface of iliac spine
      - Insertion: Upper part of the medial surface of tibia
      - Nerve supply: Femoral nerve
      - Action
        - Flexion, abduction & lateral rotation of hip
        - Flexion of knee
    - Pectineus
      - Origin: Superior pubic ramus
      - Insertion: Back of the femur "below lesser trochanter"
      - Nerve supply: Femoral nerve
      - Action: Flexion & abduction of hip
    - Psoas major
      - Origin: T12 & lumbar vertebrae
      - Insertion: Lesser trochanter of the femur
      - Nerve supply: Femoral nerve
      - Action: Flexion of hip
    - Iliacus
      - Origin: Iliac fossa
      - Insertion: Lesser trochanter of the femur
      - Nerve supply: Femoral nerve
      - Action: Flexion of hip
- Medial
  - Adductors of hip
    - Adductor longus
      - Origin: Body of pubis
      - Insertion: Posterior border of femur "linea aspera"
      - Nerve supply: Obturator nerve
      - Action: Adduction of hip
    - Adductor brevis
      - Origin: Body of pubis, inferior pubic ramus
      - Insertion: Posterior border of femur "linea aspera"
      - Nerve supply: Obturator nerve
      - Action: Adduction of hip
    - Adductor magnus
      - Origin: Inferior pubic ramus, ischial ramus
      - Insertion: Posterior border of femur "linea aspera"
      - Nerve supply: Obturator nerve
      - Action: Adduction of hip
    - Gracilis
      - Origin: Inferior pubic ramus, ischial ramus
      - Insertion: Upper part of medial surface of tibia "behind sartorius"
      - Nerve supply: Obturator nerve
      - Action
        - Adduction of hip
        - Flexion of knee
- Posterior
  - Hamstring muscles "Flexors of knee & extensors of hip"
    - Biceps femoris
      - Long head
        - Origin: Ischial tuberosity
        - Insertion: Head of the fibula
        - Nerve supply: Tibial part of sciatic
        - Action
          - Extension of hip
          - Flexion of knee
          - Lateral rotation of flexed leg
      - Short head
        - Origin: Linea aspera
        - Insertion: Head of the fibula
        - Nerve supply: Common peroneal part of sciatic
        - Action
          - Lateral rotation of flexed leg
          - Flexion of knee
    - Semitendinosus
      - Origin: Ischial tuberosity
      - Insertion: Upper part of the medial surface of the shaft of the tibia "SGS"
      - Nerve supply: Tibial part of sciatic
      - Action
        - Flexion & medial rotation of leg
        - Extension of thigh
    - Semimembranous
      - Origin: Ischial tuberosity
      - Insertion: Posterior surface of the medial condyle of the tibia
      - Nerve supply: Tibial part of sciatic
      - Action
        - Flexion & medial rotation of leg
        - Extension of thigh
    - Adductor magnus
      - Origin: Ischial ramus and ischial tuberosity
      - Insertion: Adductor tubercle of the medial condyle of the femur
      - Nerve supply: Tibial part of sciatic
      - Action: Extension of thigh

Gluteal region

- Glutei
  - Gluteus maximus
    - Origin
      - Posterior part of the gluteal surface of ilium
      - Back of sacrum & coccyx
      - Back of sacrotuberous ligament
    - Insertion: Iliotibial tract, gluteal tuberosity of the femur
    - Nerve supply: Inferior gluteal nerve
    - Action
      - Extension & lateral rotation
      - Stabilize the femur on tibia during standing
  - Gluteus medius
    - Origin: Middle part of the gluteal surface of ilium
    - Insertion: Lateral surface of the greater trochanter
    - Nerve supply: Superior gluteal nerve
    - Action
      - Abduction & medial rotation
      - Prevent tilt of pelvis
  - Gluteus minimus
    - Origin: Anterior part of the gluteal surface of ilium
    - Insertion: Anterior surface of the greater trochanter
    - Nerve supply: Superior gluteal nerve
    - Action
      - Abduction & medial rotation
      - Prevent tilt of pelvis
- Lateral rotators
  - Piriformis
    - Origin: Pelvic surface of middle 3 sacral vertebrae
    - Insertion: Passes through GSF to be inserted into the upper border of the greater trochanter
    - Nerve supply: Anterior rami of S1&S2
    - Action: Lateral rotation of hip joint
  - Obturator internus
    - Origin: Inner surface of the side wall of the pelvis
    - Insertion: Medial surface of the greater trochanter
    - Nerve supply: Nerve to obturator internus
    - Action: Lateral rotation of hip joint
  - Superior gemellus
    - Origin: Upper part of lesser sciatic notch
    - Insertion: Tendon of obturator internus
    - Nerve supply: Nerve to obturator internus
    - Action: Lateral rotation of hip joint
  - Inferior gemellus
    - Origin: Lower part of lesser sciatic notch
    - Insertion: Tendon of obturator internus
    - Nerve supply: Nerve to quadratus femoris
    - Action: Lateral rotation of hip joint
  - Quadratus femoris
    - Origin: Lateral border of the ischial tuberosity
    - Insertion: Quadrate tubercle & intertrochanteric crest
    - Nerve supply: Nerve to quadratus femoris
    - Action: Lateral rotation of hip joint

Muscles of the leg

- Anterior
  - Tibialis anterior
    - Origin
      - Lateral surface of shaft of tibia
      - Interosseous membrane
    - Insertion: Medial cuneiform and base of 1st metatarsal
    - Nerve supply: Deep peroneal nerve
    - Action
      - Extension of foot
      - Holds up medial longitudinal arch
      - Inversion
  - Extensor hallucius longus
    - Origin: Anterior surface of shaft of fibula
    - Insertion: Base of distal phalanx of the big toe
    - Nerve supply: Deep peroneal nerve
    - Action
      - Dorsiflexion
      - Extension of toes
      - Inversion
  - Extensor digitorum longus
    - Origin: Anterior surface of shaft of fibula
    - Insertion: Extensor expansion of lateral 4 toes
    - Nerve supply: Deep peroneal nerve
    - Action
      - Dorsiflexion
      - Extension of toes
  - Peroneus teritus
    - Origin: Anterior surface of shaft of fibula
    - Insertion: Base of 5th metatarsal bone
    - Nerve supply: Deep peroneal nerve
    - Action
      - Dorsiflexion
      - Eversion
- Lateral
  - Peroneus longus
    - Origin: Lateral surface of shaft of fibula
    - Insertion: Base of 1st metatarsal and the medial cuneiform
    - Nerve supply: Superficial peroneal
    - Action
      - Planter-flexion
      - Eversion
      - Holds lateral longitudinal & transverse arch
  - Peroneus brevis
    - Origin: Lateral surface of shaft of fibual
    - Insertion: Base of 5th metatarsal bone
    - Nerve supply: Superficial peroneal
    - Action
      - Planter-flexion
      - Eversion
      - Holds lateral longitudinal arch
- Posterior
  - Superficial
    - Gastrocnemius
      - Origin
        - Lateral head: lateral condyle of femur
        - Medial head: above medial condyle of femur
      - Insertion: Posterior surface of calcaneum via tendocalcaneous
      - Nerve supply: Tibial nerve
      - Action
        - Planter-flexion
        - Flexion of knee
    - Plantaris
      - Origin: Lateral supracondylar ridge of femur
      - Insertion: Posterior surface of calcaneum
      - Nerve supply: Tibial nerve
      - Action
        - Planter-flexion
        - Flexion of knee
    - Soleus
      - Origin: Shafts of tibia and fibula
      - Insertion: Posterior surface of calcaneum via tendocalcaneous
      - Nerve supply: Tibial nerve
      - Action
        - Planter-flexion
        - Provide force in walking and running
  - Deep
    - Popliteus
      - Origin: Lateral surface of lateral condyle of femur
      - Insertion: Posterior surface of shaft of tibia "above soleal lime"
      - Nerve supply: Tibial nerve
    - Flexor digitorum longus
      - Origin: Posterior surface of shaft of tibia
      - Insertion: Bases of distal phalanges of lateral 4 toes
      - Nerve supply: Tibial nerve
    - Flexor hallucis longus
      - Origin: Posterior surface of shaft of fibula
      - Insertion: Base of distal phalanx of big toe
      - Nerve supply: Tibial nerve
    - Tibialis posterior
      - Origin
        - Posterior surface of shafts of tibia and fibula
        - Interosseous membrane
      - Insertion: Tuberosity of navicular bone and other neighboring bones
      - Nerve supply: Tibial nerve