Bony Landmarks of the Knee and Leg

7.15 Anterior/lateral view of right knee showing tibiofemoral joint
Tibial Tuberosity and Shaft of the Tibia

Head of the Fibula
Bony Landmarks of the Foot

- Talus
- Navicular
- Calcaneus
- Peroneal trochlea
- Cuboid
- Transverse tarsal joint
- Lateral and middle cuneiforms
- Metatarsals
  - Base
  - Shaft
  - Head
  - Metatarsophalangeal joints
  - Interphalangeal joints
- Tuberosity of the fifth metatarsal

7.29 Lateral view of right foot
Bony Landmarks of the Foot - Medial

Text

- Phalanges
  - Head Shaft Base
  - Base of first metatarsal

- Trochlea of the talus

- Talus
  - Medial tubercle of talus
  - Sustentaculum tali

- Calcaneus
  - Tuberosity of calcaneus

- Medial cuneiform
  - Navicular tubercle
  - Head of the talus

7.30 Medial view of right foot
Muscles of the Leg and Foot

- Patella
- Tibial tuberosity
- Shaft of the tibia
- Gastrocnemius
- Peroneus longus
- Soleus
- Tibialis anterior
- Peroneus brevis
- Extensor digitorum longus
- Extensor hallucis longus
- Peroneus tertius tendon
- Peroneal retinacula (cut)
Peroneus Longus and Brevis

Peroneus Longus

A. Evert the foot
   Assist to plantar flex the ankle (talocrural joint)

B. Head of fibula and proximal two-thirds of lateral fibula

C. Base of the first metatarsal and medial cuneiform

D. Superficial peroneal L4, S1

Peroneus Brevis

A. Evert the foot
   Assist to plantar flex the ankle (talocrural joint)

B. Distal two-thirds of lateral fibula

C. Tuberosity of fifth metatarsal

D. Superficial peroneal L4, S1

7.74 Lateral view of right leg and foot

7.75 Lateral view of right leg and foot

7.76 Plantar view of right foot showing peroneus longus tendon
Peroneus Longus and Brevis

7.78 Lateral view of right leg, drawing a line between the head of the fibula and the lateral malleolus

7.79 Lateral view of right leg, partner everting foot

7.80 Lateral view of right ankle, accessing the peroneus tendons

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Extensors of the Ankle and Toes

**Tibialis Anterior**

- **A** Invert the foot
  - Dorsiflex the ankle (talocrural joint)
- **O** Lateral condyle of tibia; proximal, lateral surface of tibia and interosseous membrane
- **I** Medial cuneiform and base of the first metatarsal
- **N** Deep peroneal L4, 5, S1

7.81 Anterior/medial view of right leg and foot
Extensors of the Ankle and Toes

**Extensor Digitorum Longus**

- **Extend** the second through fifth toes (metatarsophalangeal and interphalangeal joints)
- **Dorsiflex** the ankle (talocrural joint)
- **Evert** the foot

- **Lateral condyle of tibia; proximal, anterior shaft of fibula and interosseous membrane**

- **Middle and distal phalanges of second through fifth toes**

- **Peroneal L4, 5, S1**

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**7.83 Dorsal view of right foot**

**7.82 Anterior/lateral view of right leg and foot**
Extensors of the Ankle and Toes

**Extensor Hallucis Longus**

- **A** Extend the first toe (metatarsophalangeal and interphalangeal joints)
- **D**orsiflex the ankle (talocrural joint)
- **I**nvert the foot

- **O** Middle, anterior surface of fibula and interosseous membrane
- **I** Distal phalanx of first toe
- **N** Deep peroneal L4, S1

**7.85 Origins and insertions**

**7.84 Anterior/lateral view of right leg and foot**

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Muscles of the Leg and Foot - Posterior

7.53 Posterior view of right leg showing superficial muscles

7.54 Posterior view of right leg showing deeper muscles
Muscles of the Leg and Foot

7.58 Medial view of right knee, leg and foot, superficial layer

7.59 Medial view of right leg and foot, deep layer

Semitendinosus
Semimembranosus
Gracilis
Sartorius
Vastus medialis
Patella
Pes anserinus tendon
Tibialis anterior
Tibia
Gastrocnemius (medial head)
Soleus
Superior extensor retinaculum
Extensor digitorum longus tendons
Extensor hallucis longus tendon
Calcaneal tendon
Tibialis posterior
Flexor digitorum longus
Flexor hallucis longus
Flexor retinaculum
Tibialis posterior
Flexor digitorum longus
Flexor hallucis longus
Gastrocnemius and Soleus

**Gastrocnemius**

- **Flex** the knee (tibiofemoral joint)
- **Plantar flex** the ankle (talocrural joint)
- **Condyles of the femur, posterior surfaces**
- **Calcaneus via calcaneal tendon**
- **Tibial S1, 2**

**Gastrocnemius**

Condyles of the femur (deep)

Calcaneal tendon

7.60 Posterior view of right leg
Gastrocnemius and Soleus

Soleus

A Plantar flex the ankle (talocrural joint)
O Soleal line; proximal, posterior surface of tibia and posterior aspect of head of fibula
I Calcaneus via calcaneal tendon
N Tibial L5, S1, 2

7.62 Posterior view of right leg, with gastrocnemius removed

7.61 Posterior view of right leg with foot plantar flexed, showing origins and insertions
Gastrocnemius and Soleus - Standing

7.63 Partner raising her heel to stand up on her toes

7.64 Superior view, cross section of right leg
Topographical Views

7.3 Dorsal view of right foot

7.4 Plantar view of right foot

Metatarsals
Tendon of the tibialis anterior
Tendon of the extensor hallucis longus
Tendons of the extensor digitorum longus
Calcaneus
Ball
Arch
Heel