UNIT 31. DISSECTION: LEG AND DORSUM OF THE FOOT

STRUCTURES TO IDENTIFY:
- Dorsal venous arch
- Lesser saphenous vein
- Infrapatellar branch
- Sural nerve
- Muscles of the leg and dorsum of the foot
- Anterior tibial artery
- Tibial nerve
- Flexor retinaculum
- Greater saphenous vein
- Saphenous nerve
- Medial and lateral sural
- Extensor retinaculum
- Deep fibular nerve
- Dorsalis pedis artery
- Posterior tribial artery
- Superficial fibular nerve

DISSECTION INSTRUCTIONS:

1. Remove the skin from the complete lower leg. Make incisions two inches apart starting at the medial aspect of the knee. Go completely around the leg from anterior, lateral and posterior. Continue these incisions onto the dorsum of the foot. Do not remove the skin from the plantar aspect of the foot at this time. Carefully remove each one of the strips.

2. On the dorsum of the foot locate the dorsal venous plexus and follow it medially and superiorly (N. plate 544; G. plates 5.9, 5.10) and forms the greater saphenous vein which goes anterior to the medially malleolus and up the lower limb. Follow the dorsal venous arch lateral; it becomes the lesser saphenous which goes posterior to the lateral malleolus, where it ascends in the mid-line of the calf to empty into the popliteal vein (N. plate 545; G. plate 510). The saphenous nerve travels with the greater saphenous vein in the leg (N. plate 545; G. plate 5.36). It is formed both by a branch from the tibial and the common fibular nerve. Find the cutaneous branches of the superficial fibular nerve on the dorsal surface of the ankle and foot (N. plate 544; G. plate 5.5).

3. Clean the gastrocnemius muscle and calcaneal tendon (N. plate 516; G. plates 5.37, 5.60B, Table 5.13 and figures p. 432). Divide the medial head of the gastrocnemius one-half inch from its origin and turn the muscle laterally to study the soleus (N. plate 517; G. plate 5.50C). Between the soleus and gastrocnemius muscles is a long tendon belonging to the plantaris muscle (N. plate 517; G. plate 5.37; p. 432).

4. Clean the popliteus muscle external to the knee joint (N. plates 511, 517, 518, 541; G. plates 5.38, 5.47). Detach the tibial head of the soleus and turn the muscle laterally to expose the three deep muscles in the posterior compartment of the leg (N. plate 518; G. plates 5.61A, C; Table 5.13 and figures p. 432). Clean and identify. Clean the flexor retinaculum at the ankle (N. plates 517, 518, 529; G. plates 5.61A, 5.62).

5. Clean the posterior tibial artery, tibial nerve and their branches (N. plates 512, 518; G. plate 5.61A, C p 441).
6. The lateral compartment of the leg contains only two muscles, fibularis longus and brevis (N. plate 519 – 521; G. plates 5.54, 5.57, Table 5.12, p 429). Clean and identify the muscles and their nerve supply.

7. Clean the muscles of the anterior compartment, identify the deep fibular nerve and the anterior tibial artery (N. plates 512, 519 – 521; G. plates 5.53, 5.54, Table 5.9 and figures p. 423).