

# Electrophysiological Evaluation III (4-30-1987)

- NCS of the left common fibular (peroneal) nerve was normal, including normal F-waves.
- NCS of the left tibial nerve was normal, including normal H-wave reflexes and F-waves.
- NCS of the right common fibular (peroneal) and tibial nerves were performed and served as “normal controls”. Right and left NCS were symmetric for both nerves.

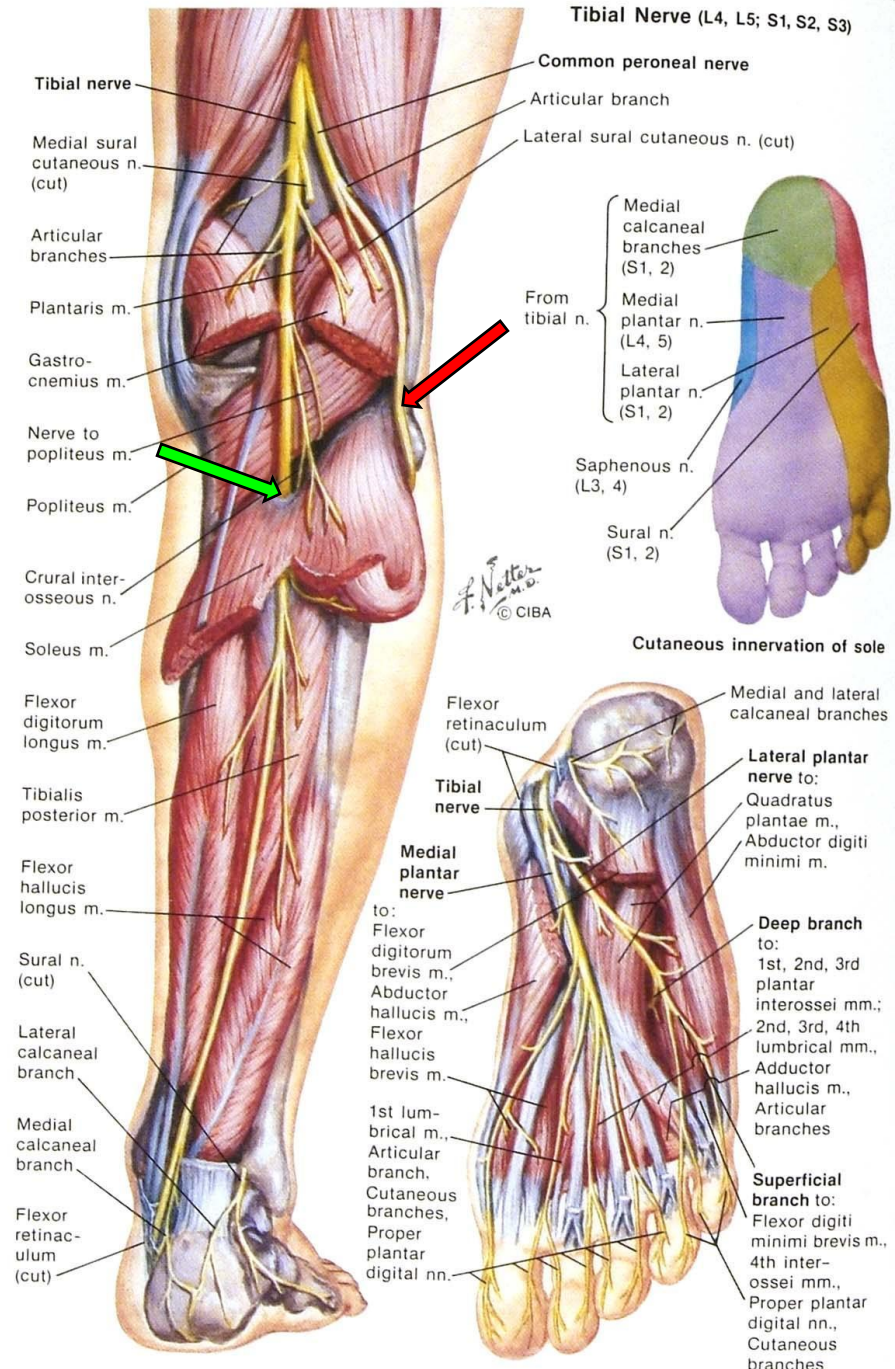
# Tibial Nerve Decompression I (5-11-1987)

- On the basis of the patient's clinical and EMG/NCS findings, the patient underwent a left tibial nerve exploration and decompression procedure.
- The main trunk of the tibial nerve, its branches in the popliteal fossa to the gastrocnemius, plantaris, soleus, and popliteus muscles, and its superficial sensory branch (medial sural cutaneous nerve) appeared normal.

# Tibial Nerve Decompression II (5-11-1987)

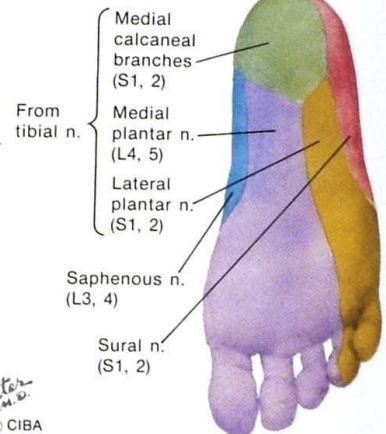
- However, at the proximal border of the soleus muscle (i.e., where the nerve passes under the tendinous arch), the tibial nerve was compressed by a band of fibrous tissue.
- The proximal soleus muscle and fibrous band were divided, and the tibial nerve was decompressed.

**Tibial Nerve (L4, L5; S1, S2, S3)**

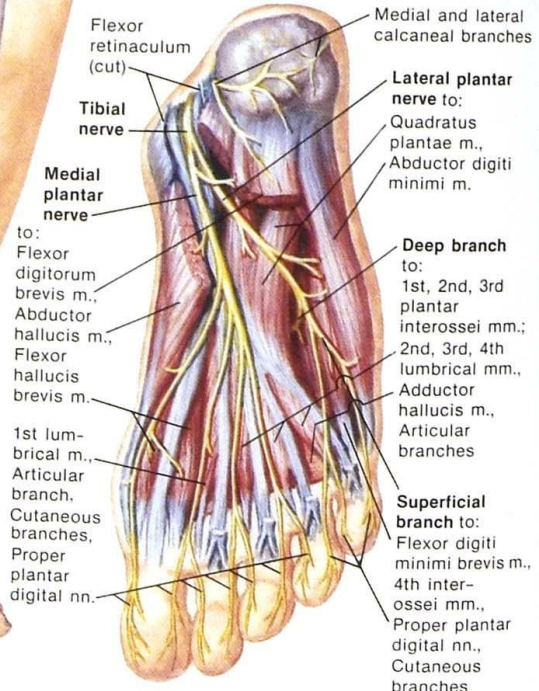


Tibial nerve  
 Medial sural cutaneous n. (cut)  
 Articular branches  
 Plantaris m.  
 Gastrocnemius m.  
 Nerve to popliteus m.  
 Popliteus m.  
 Crural interosseous n.  
 Soleus m.  
 Flexor digitorum longus m.  
 Tibialis posterior m.  
 Flexor hallucis longus m.  
 Sural n. (cut)  
 Lateral calcaneal branch  
 Medial calcaneal branch  
 Flexor retinaculum (cut)

Common peroneal nerve  
 Articular branch  
 Lateral sural cutaneous n. (cut)

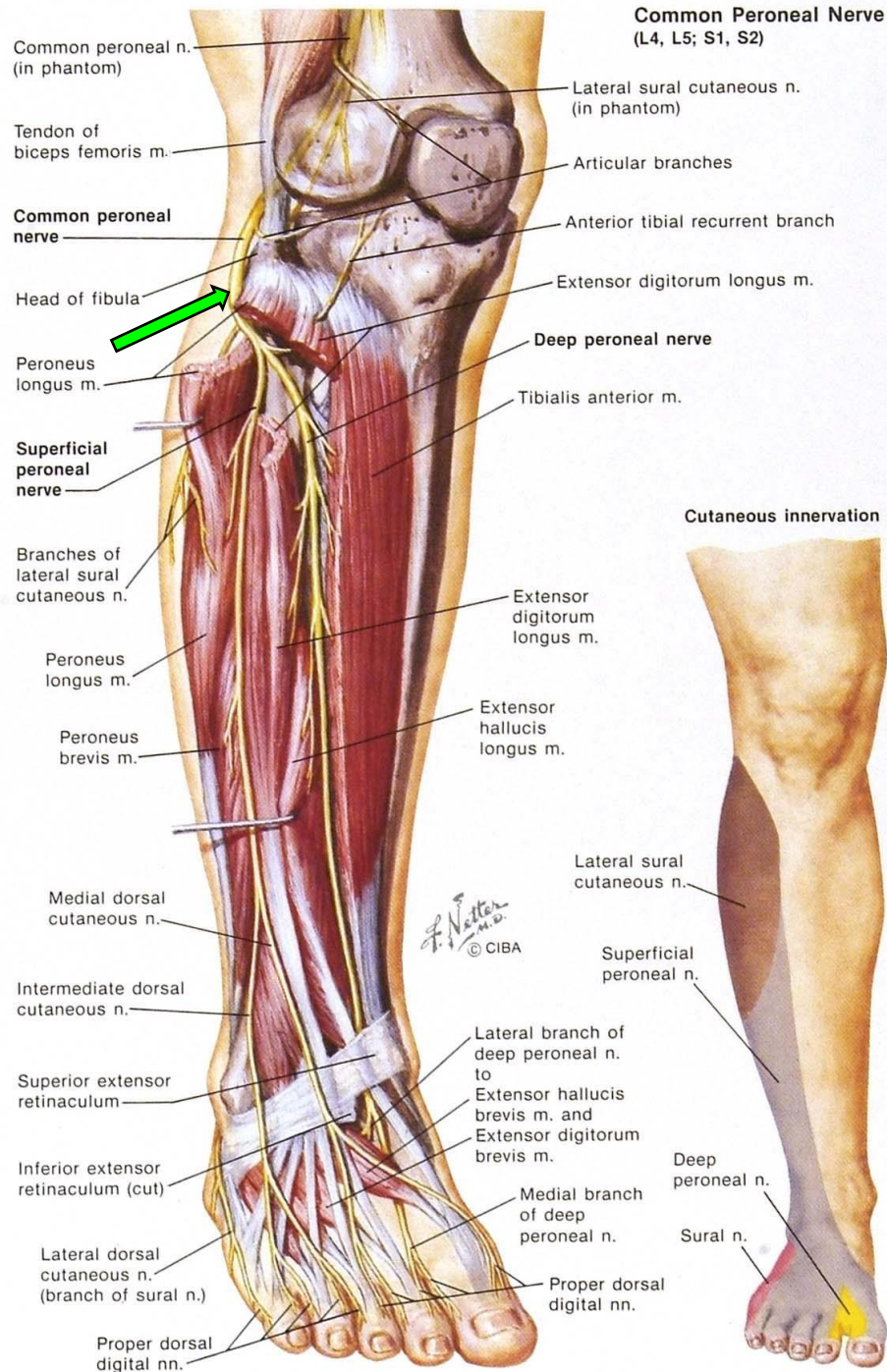


**Cutaneous innervation of sole**



*F. Netter M.D.*  
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**Common Peroneal Nerve**  
(L4, L5; S1, S2)



# Sural Nerve Biopsy (5-11-1987)

- During the tibial nerve decompression operation, a sample of epineurium of the tibial nerve and a 2 cm length of the medial sural cutaneous nerve were biopsied and sent to pathology for analysis.
- The epineurium and the nerve biopsy were both unremarkable. No inflammation, ovoids, amyloid or tumor infiltration, or hypertrophic features (e.g., tomaculae) were noted.
- Electron microscopy and special stains of the nerve biopsy were normal.

# MRI Scan of Lumbosacral Spine (7-15-87)

- Horizontal, sagittal, and coronal T1W and T2W MRI images of the lumbar and sacral vertebral column and cauda equina were obtained.
- Bony structures and soft tissue structures (muscles, intervertebral discs, dorsal and ventral roots, cauda equina, conus medullaris, and connective tissue) were within normal limits.
- No evidence of neurofibromatosis was present.