

## SAMPLE NEUROMUSCULAR ULTRASOUND REPORT

**Patient name:**Smith, John  
**Clinic Number:** ABC123  
**Date of Birth/Age:** 46 years  
**Gender:** Male  
**Height:** 72 inches  
**Weight:** 150 lbs  
**Hand dominance:** Right  
**Ethnicity:** African-American

**Referring provider:** Doe, Jane  
**Performing provider:** Doe, Bill  
**Date of study:** 07/01/2018

**Referral indication:** Left popliteal fossa pain

**History and Physical Examination:** Mr. Smith is a 46 year old male presenting with a 6 month history of progressive left popliteal fossa pain and tenderness. There is no history of prior trauma. He denies any weakness or numbness.

Focused physical examination reveals pain to palpation in the left popliteal fossa without a palpable mass. There is normal muscle tone and bulk in the bilateral lower extremities. Strength is 5/5 and deep tendon reflexes are 2/4 bilaterally. Sensation is normal to pinprick and vibratory testing.

**Prior NCS/EMG Testing:** Performed 6/30/2018 at the AANEM EMG Laboratory was normal.

**Significant PMHx:**

1. Diabetes mellitus
2. Ganglion cyst - left wrist 1999
3. Recent diagnosis of interstitial lung disease

**Results:**

High frequency (14.0 MHz) B-mode, nonvascular ultrasound of the bilateral lower extremities was performed with gain set at 75%, focusing on the fibular and tibial nerves. The nerves were imaged with the knee fully extended and the patient lying in a lateral decubitus position. The following cross-sectional area measurements were obtained and compared to reference values obtained in our laboratory.

<b>Fibular Nerve</b>	<b>Right CSA</b>	<b>Left CSA</b>
Popliteal fossa (ref < 12mm <sup>2</sup> )	10.0mm <sup>2</sup>	15.0mm <sup>2</sup>
Fibular head (ref <12mm <sup>2</sup> )	9.8mm <sup>2</sup>	9.9mm <sup>2</sup>
<b>Tibial Nerve</b>		
Popliteal fossa (ref <25mm <sup>2</sup> )	23mm <sup>2</sup>	20mm <sup>2</sup>

The left fibular nerve is focally enlarged and hypoechoic within the mid popliteal fossa; the patient is quite tender to compression maneuvers at this location. In longitudinal view the fibular nerve has a fusiform shape, with large hypoechoic fascicles. Doppler imaging demonstrates increased vascularity within the nerve.

The left superficial fibular nerve could not be identified distal to the fibular head. The left distal sciatic nerve could not be visualized despite repeated attempts.

The left tibial and right tibial and fibular nerves had normal cross-sectional areas, with normal echogenicity in both the transverse and longitudinal planes.

**Conclusion:**

This is an abnormal ultrasound study of the left fibular nerve. There is focal enlargement at the popliteal fossa, associated with loss of echogenicity. The differential diagnosis is broad, but includes peripheral nerve tumors/neuromas, inflammatory neuropathies, acquired amyloid neuropathy, and sarcoidosis. Given his clinical history, sarcoidosis is favored.