**Clinical Exam Tests**

**Name: Lower Extremity Neurological Testing - Sensory Tests**

**Domain:  Neurological screening**

**Description:**

This is a quick screening examination of the neurological integrity of lower extremity sensory function. The sensory tests are performed with light touch or pinwheel over the areas of skin associated with the 3 major dermatomes of the lower extremity:

* L4: Anteromedial lower leg
* L5: Dorsum of the foot
* S1: Posterolateral lower leg and foot

Right and left lower extremities are both tested. The examiner asks participants to close their eyes before testing and report if the sensation feels the same on both sides. Responses are recorded for each dermatome on both right and left lower extremities using the following responses: “None/Diminished,” “Normal,” or “Hyper.”

**Video:** \_X\_ Yes \_\_\_No  **NO PHOTO**

https://www.youtube.com/watch?v=SzAyUsA25MQ (From 2:25-3:10)

**Equipment Required/Set-up:** Table

**Procedure/Script:**

*“This will be a quick examination of the feeling in your lower extremities. I am going to ask you to lie on your back with your eyes closed. I will then lightly touch or run a pinwheel over the areas of skin on your lower leg and foot. I will do this on your left and right sides. It will not hurt, and I will need to know if the sensation feels the same on both sides.* *Are you ready to begin?”* **Simultaneously and with consistent pressure**, **start by lightly touching both left and right L4 dermatome areas along the medial anterior tibias to the medial malleoli. Ask** *“Can you feel the touches? Do they feel normal and equal to you?”* **Record and proceed to the L5 dermatome and continue the procedure.**

**Simultaneously lightly touch, with consistent pressure, both left and right L5 dermatome areas along the lateral to distal anterior tibias and along the dorsum of the feet to the great toes. Ask** *“Can you feel the touches? Do they feel normal and equal to you?”* **Record and proceed to the S1 dermatome and continue the procedure.**

**Simultaneously and with consistent pressure, lightly touch both left and right S1 dermatome areas along the lateral aspects of the feet and the lateral and posterior calves. You may ask participants to bend their knees to access the posterior calves. Ask** *“Can you feel the touches? Do they feel normal and equal to you?”* **Record and end sensory testing.**

**Lower Extremity Neurological Testing - Sensory Test Scoring**

1. **Was the test attempted?** \_1. Yes \_0. No
2. **Record sensory grading:**

Anteromedial Lower Leg (L4)

Left

\_0. None/Diminished (light pain and/or pain

\_1. Normal Sensation

\_2. Hypersensitivity (light touch perceived as pain)

Right

\_0. None/Diminished (light pain and/or pain

\_1. Normal Sensation

\_2. Hypersensitivity (light touch perceived as pain)

Dorsum of Foot (L5)

Left

\_0. None/Diminished (light pain and/or pain

\_1. Normal Sensation

\_2. Hypersensitivity (light touch perceived as pain)

Right

\_0. None/Diminished (light pain and/or pain

\_1. Normal Sensation

\_2. Hypersensitivity (light touch perceived as pain)

Posterolateral Calf and Foot (S1)

Left

\_0. None/Diminished (light pain and/or pain

\_1. Normal Sensation

\_2. Hypersensitivity (light touch perceived as pain)

Right

\_0. None/Diminished (light pain and/or pain

\_1. Normal Sensation

\_2. Hypersensitivity (light touch perceived as pain)

**Comments:**

Date (mm/dd/yyyy):

Visit Time Point:

Initials of completer:

#### References:

#### Al Nezari NH, Schneiders AG, Hendrick PA. Neurological examination of the peripheral nervous system to diagnose lumbar spinal disc herniation with suspected radiculopathy: a systematic review and meta-analysis. The Spine Journal. 13(6):657-674. https://doi.org/10.1016/j.spinee.2013.02.007