

## **Neurosurgery**

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Thank you for choosing Kadlec Neuroscience Center.  
Your scheduled EMG /NCS test is on :

This test will be performed at 1100 Goethals Drive, Suite B, Richland, WA. Enclosed you will find the relevant instructions for you test. On average you will be at our clinic one hour. Please note, you must arrive at least 15 minutes prior to your appointment time or we may have to reschedule. This time has been reserved for you and your healthcare is important to us. If you have any questions, need to reschedule or cancel your appointment, please call us at (509) 942-3080.

We look forward to serving you.

Kadlec Neuroscience Center

# **EMG – NCS TEST**

**To prepare for your test please do the following to prepare:**

- 1. Arrive freshly showered, your skin should be clean with no oils, lotions, or powders.**
- 2. Please wear the following:**
  - For upper body testing (arms) - short sleeved or sleeveless shirt.**
  - For lower body testing ( legs ) - shorts or stretchy loose fitted pants.**
- 3. Please do not smoke for 2 hours prior to your appointment.**

**Below is a description of the test you will be having:**

Your doctor has ordered an EMG (Electromyography) and/or a NCS (nerve conduction study) to assist in making a more specific diagnosis. The doctor uses a computerized EMG/NCS machine to perform the diagnostic test.

NERVE CONDUCTION STUDY (NCS) is performed by stimulating a peripheral nerve and recording the reaction. The study is usually ordered to determine if there is or is not a neurological deficit. Examples include nerve entrapment neuropathy (i.e. carpal tunnel syndrome), polyneuropathy (generalized nerve disease), or trauma-related nerve injuries. The study can also distinguish between nerve and muscle disorders, the severity and extent of the disease, and help categorize the type of injury. Most patients describe a mild electric current similar to a tens unit or electrical stimulation. Others describe a sensation similar to “hitting the funny bone”. Regardless of the feeling, the sensation lasts only microseconds. You need to tell us if you have a cardiac pacemaker; sometimes pacemakers are affected by the electrical current. We also need to know if you have an indwelling catheter. There is no long-term discomfort associated with NCS.

ELECTROMYOGRAPHY (EMG) is a diagnostic test that involves the placement of micro-needles into different muscles to measure electrical activity and assess physiological function. The electrical activity can be detected by skin electrodes, amplified and displayed on a monitor. Unlike NCS, EMG does not involve external electrical stimulation. Nevertheless, EMG studies are often part of the overall examination, which includes NCS. When you have your EMG you will lie flat on the exam table. No sedative or pain medications are needed. Micro-needles are then placed into different muscles. Several muscles are tested individually. The EMG monitor will amplify the electrical sound activities of the muscles. Overall, the entire study generally takes 45 minutes to an hour. Sometimes the study may take longer. The actual time that anything is felt is usually microseconds for NCS and just seconds for the EMG.