EMG (Electromyogram) and NCS (Nerve Conduction Study)

What is an EMG/NCS?
Your doctor has ordered an EMG (electromyogram) and an NCS (nerve conduction study) for you. An EMG/NCS is the electrical study of your nerves and muscles. This study helps your doctor to decide on the cause of your symptoms and plan the best treatment for you. There is no special prep for the test. If you have any questions about an EMG/NCS, be sure to ask your doctor or nurse.

Where is the location of the EMG/NCS lab?
If you are an inpatient, we will come to your bedside for the test.

If you are an outpatient at UWHC (the main hospital and clinics at 600 Highland Ave.), you will need to stop and register in the clinic lobby on the 2nd floor. After registration, follow Main Street through the H elevator lobby to the J module and check in at the Neurodiagnostics reception desk. If you need help finding our location, staff at the registration or information desk can direct you.

If you are an outpatient at 20 South Park, Neurology clinic, you will register in the 1st floor clinic lobby of the 20 S. Park building (on the corner of Park St. and Regent St.). After registration, please come to Suite 202 Neurology on the second floor.

What is NCS?
The NCS is the first part of this test. It studies your nerves. Small metal discs are taped on your skin based on the nerves that are going to be tested. Then, a small electrical current is used to stimulate the nerve.

This electrical testing will be done on several nerves and may be done at different sites along the nerve. The electrical current produces a tingling, slightly uncomfortable sensation. The testing room may be darkened so that the electrical activity can be seen easily on a computer monitor.

What is an EMG?
The EMG is the second part of this test, which studies your muscles. First, a small metal disc (about the size of a fifty-cent piece) will be taped to your skin. Then, the doctor will insert a small needle into your muscle and record your muscle’s electrical activity. EMG testing may be done on several different muscles but each muscle is tested one at a time. During the test, you will hear crackling sounds coming from the computer speaker. This is the electrical activity from your muscles, which has been changed into sound waves. You do not receive any electrical current for this part of the test. The EMG can be somewhat uncomfortable because of the small needle that is inserted into your muscle. For a day or two after the test, you may feel some tenderness or notice a small bruise on your skin around the sites where the needle was inserted.

The entire EMG/NCS testing can take about 1 to 1½ hours. Please do not use hand or body oils and lotions on the affected area for 24 hours before the test. After the test, we will send the results to the doctor that referred you to us for testing. If you have further questions, please feel free to call us. For appointments at UWCH please call, (608) 263-7247 or 1-800-323-8942. For appointments at 20 S. Park please call, (608) 287-2090 or 1-888-703-2778.

The Spanish version of this Health Facts for You is #4303s

Your health care team may have given you this information as part of your care. If so, please use it and call if you have any questions. If this information was not given to you as part of your care, please check with your doctor. This is not medical advice. This is not to be used for diagnosis or treatment of any medical condition. Because each person’s health needs are different, you should talk with your doctor or others on your health care team when using this information. If you have an emergency, please call 911. Copyright © 2/2017 University of Wisconsin Hospitals and Clinics Authority. All rights reserved. Produced by the Department of Nursing. HF#4303