

# Neurodiagnostic Testing at NNA

*What our patients need to know*

**Central Scheduling for all Locations:  
330-572-1011 ext. 135**

**Neurodiagnostic testing is performed at these  
NNA offices**

***West Akron - Main Office***

701 White Pond Drive, Suite 300, Akron, OH 44320  
330.572.1011 • FAX 330.572.1018

***Green***

1700 Boettler Road, Suite 250, Uniontown, OH 44685  
330.899.5730 • Fax: 330.899.0522

***Hudson***

The Health Center at Western Reserve  
5655 Hudson Dr., Suite 110, Hudson, OH 44236  
330.342.4020 • Fax: 330.342.4040

***Medina***

3985 Medina Road, Suite 200, Medina, OH 44256  
330.723.2700 • Fax: 330.723.2709



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## **What is an EMG and why did my doctor order it?**

To determine if your muscles and nerves are functioning

properly, your physician has recommended an EMG (electromyogram). You may be experiencing problems in only one part of your body or throughout your body. Electrodiagnostic medicine (the study of nerves and muscles) assists your physician in analyzing your symptoms and determining a course of treatment.

Following an exam with your physician and discussion of your symptoms—numbness, tingling, pain, weakness or muscle cramping—you will visit the EMG lab for testing. Some of the tests are nerve conduction studies, needle EMG, and evoked potentials. Your physician will determine which tests should be performed and then use test results to diagnose your symptoms.

## **Nerve Conduction Study**

By applying small electrical shocks to the nerve and recording how the nerve responds, nerve conduction studies reveal how well the body's electrical signals are traveling to a nerve. Several nerves may be tested with small shocks that cause a quick, mild tingling feeling.

## **Needle EMG**

During this procedure, a small, thin needle is inserted into several muscles to

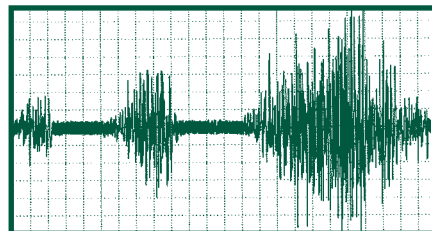
evaluate muscle response. Because a small amount of pain may be experienced when the needle is inserted, it is important for the patient to understand that the physician tests only those muscles which are necessary to evaluate problems discussed during the prior exam. The physician looks at and listens to the electrical signals that travel from the needle to the EMG machine, relying on his medical training and expertise to determine the cause of your problem. Please note that new needles are used for each patient, and needles are always discarded after each test.

## **Evoked potentials**

Evoked potentials are painless procedures that examine the nerve pathways through the spinal cord or from the eyes and ears. Nerve responses are recorded over the scalp and other areas of skin as signals are transmitted from small electrical shocks, light pulses, or clicks of sound in the ears.

## **What kind of medical training do EMG physicians have?**

EMG physicians have four or more years of medical school and three or four more years of training in a residency program.



Many neurologists complete a one-year fellowship specializing in neurodiagnostic testing and neuromuscular diseases and can achieve board certification in this sub-specialty of neurology.

## **How long will these tests take?**

Tests usually last from 45–90 minutes. Eating, driving, exercising and other normal activity can be done prior to testing, and because there are no lingering side effects, you can resume normal activity following your procedure.

## **How should I prepare for the tests?**

Inform your physician of all medications you are taking including aspirin and blood thinners (like Coumadin®), and of other conditions you may have such as hemophilia or a pacemaker. If you have myasthenia gravis, ask your physician if you should take your medication before the test. On the day of the test, take a bath or shower to remove oil from your skin; do not use body lotion.

## **When will I know the test results?**

Your NNA physician will discuss your test results with you at your scheduled

follow-up appointment, or will send the results to the physician that ordered the test. Please be sure you have a follow-up appointment scheduled following your test.

**If you have any questions, they will be answered at the time of the exam, or call 330.572.1011.**

*My Appointment*  
*(Date, time, location, physician)*

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