

EMG QUICK OVERVIEW

What is an EMG?

- A test that measures the electrical activity of specific muscles and nerves

When is an EMG necessary?:

- Neck, lower back, arm or leg pain
- Unexplained muscle weakness
- Numbness
- Tingling
- Clumsiness
- Loss of sensation

Preparation:

- Adults
 - ~No special preparation necessary, although the use of skin moisturizing creams the day of testing is discouraged.
- Children and infants
 - ~Dependant upon age and previous experience. Your neuromuscular specialist can help with instructions specific to your case.

We hope that the information contained in this pamphlet is helpful in understanding your condition, the possibility of further testing and the treatment options. If you have additional questions, please contact your neuromuscular specialist.



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EMG (Electromyography)



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You Have Been Referred To Neuromuscular & Rehabilitation Associates Of Northern Michigan For EMG Testing

Most people have some questions about an EMG, especially if they are having an EMG for the first time. The purpose of this pamphlet is to answer questions about EMG and inform you about what you might expect during the testing.

What is an EMG?

Your muscles and nerves are electrical organs. An EMG is a test that records the electrical activity of your nerves and muscles. The EMG equipment is used to detect normal or abnormal electrical activity in your nerves or muscles. The EMG only tests the peripheral nervous system. This is the part of the nervous system as the nerves leave the brain or spinal cord and run out your arms and legs to your skin for sensation and to your muscles for power.

There are almost always two parts to the testing: The EMG part of the test and the nerve conduction part of the test.

What is the EMG part of the test like?

During this part of the test the neuromuscular specialist who sees you will place very thin needle electrodes coated with Teflon through your skin into your muscle to check the electrical activity of your muscles. When done correctly this typically causes just mild discomfort, except for certain areas of the hands and feet where there is moderate discomfort. One of the reasons for this pamphlet is to inform you about what to expect so that you are not so worried prior to the testing and your overall experience is better.

What is the nerve conduction study part of the test like?

This part of the test looks at the nerves going out to skin for sensation or to muscles for power. A mild to moderate electrical signal is placed for a split second over a nerve. Most patients feel a “zap”, and part of their limb may “jump” or “flinch”. This gives your doctor information on how fast the nerves are traveling and how much of the nerve electrical signal gets through certain areas.

What are some symptoms that EMG and nerve conduction studies evaluate?

The EMG process can effectively evaluate symptoms of pain, numbness, tingling, muscle shrinking, weakness and fatigue.

What are some nerve or muscle problems that are diagnosed by EMG?

The list is long, but common problems diagnosed in our office by EMG include pinched nerve in the neck, pinched nerve in the low back, nerve problems related to diabetes, carpal tunnel syndrome, cubital tunnel syndrome, muscle diseases, myasthenia gravis and Lou Gehrig's disease.

Who does this testing?

At our office, one of our physicians will do the entire test. Our doctors are specialists in physical medicine and rehabilitation and have extensive and specialized training in EMG and nerve and muscle diseases.