

Neurology Associates of Norwalk

EMG Information Sheet

What Is An EMG?

Your doctor has ordered an EMG examination. EMG, also known as electromyography, is a medical examination performed by a neurologist to evaluate the function and health of the nerves and muscles in your extremities, the arms and legs.

Nerve conduction studies are used to test individual nerves in the arms or legs. Testing involves stimulating a nerve with a brief, small electrical impulse to the skin surface and recording the response from a muscle or another portion of the nerve via small metal disks that are placed on the skin. The electrical stimulations range from barely perceptible to a static electric shock that one might get in the winter. The stimulations last for several seconds at a time. There are no after effects from these electrical stimulations and the stimulations are safe to perform in patients that have pacemakers. You should inform the doctor who is performing the test whether you have a pacemaker or any other implanted device.

Electromyography is another part of this test that gives information also about the nerves and also the muscles. This part of the examination will usually follow the nerve conduction studies. In this part of the test, a sterile, disposable, very thin needle electrode that is Teflon coated is placed through the skin into a muscle. The needle has a specialized recording device that records the natural electrical activity within the muscle. Analysis of this activity gives important information about the health of each muscle tested as well as the controlling nerves. This part of the examination is specially tailored to provide information about the specific clinical questions for a given patient.

There is a mild degree of discomfort with penetration of the skin by the needles but there is no lasting discomfort after the test is completed. This part of the test is safe to perform even in patients who are taking blood thinners.

EMG testing generally takes between 30 and 60 minutes depending upon the condition being tested and the findings of the study. After completion of the test, the physician performing the test analyzes the results and an interpretation of those results will be sent to your doctor within 24 hours.

Why Has This Test Been Ordered?

Your doctor has referred you for an EMG because of symptoms that you have. EMGs are useful in determining the cause of decreased sensation, tingling, radiating pain, or burning. In addition conditions causing symptoms such as muscle spasms, weakness, back and neck pain can also be diagnosed by EMG. Some of these conditions include sciatica, pinched nerves, neuropathies, muscle disease, and myasthenia gravis.

How Should I Prepare for This Test?

Tell the physician performing the EMG if you are taking aspirin, blood thinners like Coumadin, or have a pacemaker. Take a shower or bath before the test to remove oil from your skin. Do not use body lotion on the day of the test. Otherwise there are no special preparations for this test and there is no recovery from this test. Normal activities can be resumed immediately after the test.