



WHAT IS EMG?

The EMG is short form for Electromyography. It is a direct extension of the neurologic portion of the physical examination. The examination can be helpful in evaluating the causes of numbness, tingling, pain, weakness, fatigue and muscle cramping. The test is done in two parts- These include nerve conduction studies (NCSs), needle electromyography (EMG).

An electrodiagnostic medicine consultant undergoes special training in electrodiagnostic medicine procedures. The knowledge and expertise gained from such specialized medical training maximizes the ability of the consultant to consider appropriate differential diagnoses in planning and performing the electrodiagnostic examination. The expertise enables the consultant to assist referring physicians in establishing diagnoses, determining prognoses, and assisting in proper management.

The examination usually takes 30 to 60 minutes. There are no restrictions on activity before or after the testing and there are no lasting aftereffects.

NCSs(Nerve conduction study) should be performed by a physician or a trained technologist under the direct supervision of a physician. The needle EMG examination should be performed by a physician with special training in this area.

NERVE CONDUCTION STUDIES

A small lap top machine is used to perform this test. NCSs test how well signals travel along a nerve and can help find the cause of abnormal nerve function. Signals are made to travel along the nerve by applying small electric pulses to the nerve at one site and recording the response at a different place along the nerve. The small electric pulses cause a short, mild tingling feeling. Sometimes they feel like sensation you feel when you accidentally hit your elbow against edge of a table. The nerve's response is picked up by a recording instrument and then is measured by the physician or technologist performing the test. Several nerves may need to be tested depending on the type of problem.

NEEDLE EXAMINATION (EMG OR ELECTROMYOGRAM)

During the needle EMG portion of the examination, the physician inserts a small needle electrode into a muscle to record the electrical activity of the muscle. The electrical activity of the muscle is fed into the recording instrument and the physician then analyzes it by looking at a signal on the scope and listening to the sounds the activity makes through the speaker. This test can help determine if there are abnormalities in the muscle or the nerve going to it.

There may be mild discomfort when the needle electrode is inserted into the muscle. The needles are discarded after use to prevent the transmission of infections.



SPECIAL PRECAUTIONS

You should inform the physician prior to the examination if you are on blood thinners or have hemophilia. The physician should also be informed if you have a cardiac pacemaker or use a transcutaneous electrical nerve stimulator (TENS) unit. Avoid using skin lotions the day of the test

RESULTS

When the examination is completed the electrodiagnostic medicine consultant will analyze the results and report them to you or the physician who referred you for the tests.

