

Adult Neurology

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Electromyography (EMG Testing)

Electromyography or EMG testing is an electrical test of the nerves and muscles. It is often recommended by a physician to help diagnose certain nerve and muscle disorders, such as "pinched nerves," radiculopathy, sciatica, carpal tunnel syndrome, neuropathy or other nerve injuries. It is also used to investigate symptoms such as neck pain, low back pain, numbness, tingling sensations, muscle weakness, etc. EMG testing can also be helpful in localizing which nerve or nerves are involved in causing a particular problem. The test can reveal information about the condition of the nerves and muscles, and whether or not there is damage to them.

The test consists of two parts. The first part of the test is called a "nerve conduction study." In this part of the test, electrical stimulation is given to different nerves. Measurements are made in the hands and/or feet, giving the physician information about how well that nerve is working. The number of nerves tested depends upon the nature and complexity of the problem and is often determined as the test progresses.

The second part of the test involves the insertion of a small sterile needle into various muscles, just beneath the skin. No electrical stimulation is given in this part of the test, but the needles do measure the electrical activity of the muscle at rest and with activity.

No specific instructions need to be followed to prepare for an EMG test. The patients may eat and drink normally up to the time of the test. While parts of the test can be uncomfortable for the patients, most people tolerate the test quite well. There are no significant risks or dangers from this test, and there are no long-term side effects from it. Normal activities can be resumed immediately after the test has been completed.