

ELECTROMYOGRAPHY (EMG)

Electromyography or EMG is a test to assess nerve function. This test can assist in determining whether a nerve is "pinched" or damaged due to an injury or compression. It can assist the physician in determining such common diagnoses as a lumbar radiculopathy, carpal tunnel syndrome, and other nerve injuries.

Electromyography is not a simple test, but rather a complex consultation. Before the test, the physician will take a history of the problem and perform a focused examination. Then the test is performed, which consists of two parts.

The Nerve Conduction Studies test how well the nerves conduct a *small* electrical current, which is how they function *naturally*. Damage to a nerve due to an injury or generalized nerve disorder, can slow this electrical conduction and cause other abnormal findings, which can be detected by the EMG computer. Although the suddenness of the stimulation can surprise some, most people are fairly comfortable during this portion of the test.

The Needle Examination or Electromyogram gives further information on how nerve function affects muscles and can assess certain muscular disorders. The physician places a small, sterile pin into selected muscles and monitors their function on the computer screen. Patients are able to hear sounds from the machine when they move their muscles, but for much of the test, it's necessary to relax the muscles. The pin may be a little uncomfortable, but the pain is usually acceptable as the pin diameter is much thinner than blood drawing needles.

EMGs do not involve radiation or medications and are safer than most tests. It is normal to experience a mild muscle ache for a few days after the test, and people will occasionally notice a small bruise, which disappears after a day or so. There are no long-term side effects.

Patients, who *are* on blood thinners, have lung diseases or are at risk of infection, need to inform the electromyographer prior to the procedures. Patients should avoid any use of skin creams or oils prior to the procedure as these can affect the test. Clean, dry skin is best for the test.

To facilitate the performance of your EMG, we ask that family members wait in our lobby during the diagnostic exam.