

Patient Name:

Date:

Date of Birth:

SONORAN SPINE - REFERENCE

Electromyography and Nerve Conduction Studies

An electromyogram (EMG) measures the electrical activity of muscles at rest and during contraction. Nerve conduction studies (NCS) measure how well and how fast the nerves can send electrical signals.

If you have leg pain or numbness, you may undergo these tests to determine how much your nerves are being affected. These tests check how well the spinal nerves and the nerves in your arms and legs are working and whether there is nerve irritation or damage. They do not test for pain.

Why It Is Done

An EMG is done to determine muscle tissue or nerve damage. It can find the cause of weakness, paralysis, or muscle twitching.

A Nerve Conduction Study is done to find damage to the peripheral nervous system, which includes all the nerves that lead away from the brain and spinal cord and the smaller nerves that branch out from those nerves.

How to Prepare

Tell us about all medications, vitamins, or supplements you are taking. Some medicines can affect test results. You may need to stop taking some medication before you have this test.

If you are take any blood thinners (Coumadin or warfarin, Plavix, Lovenox, Eliquis, etc), please tell us before we start the testing. You do not need to stop these but we do need to be aware.

Wear loose-fitting clothing. Since the electrodes are attached to your skin, it is very important that your skin is clean and free of all oils, creams, and lotions.

How It Is Done Electromyogram

The skin over the areas to be tested is cleaned. A needle electrode that is attached by wires to a recording machine is inserted into a muscle by your doctor. Then the electrical activity in that muscle is recorded while the muscle is at rest. Then the doctor will ask you to tighten the muscle slowly and steadily. This electrical activity is recorded.

The electrode will be moved a number of times to record the activity in different areas of the muscle or in different muscles.

Nerve conduction studies

Several electrodes are attached to your skin. Several quick electrical pulses are given to the nerve, and the time it takes for the muscle to contract in response to the electrical pulse is recorded. The speed of the response is called the conduction velocity. The same nerves on the other side of the body may be studied for comparison. When the test is done, the electrodes are removed.

How It Feels

EMG—During an EMG test, you may feel a quick, sharp pain when the needle electrode is put into a muscle. After the test, you may be sore and have a tingling feeling in your muscles for up to 2 days. If your pain gets worse or you have swelling, tenderness, or pus at a needle site, please call the office.

NCS—You will be able to feel the electrical pulses. Only a very low-voltage electrical current is used, and each electrical pulse is very quick.

If you have pain after testing, use ice or cold pack on the sore area for 10-20 minutes at a time. You may take over-the-counter pain medication, such as acetaminophen, ibuprofen, or naproxen.

Risks

An EMG is very safe. You may get some bruising or swelling at some of needle sites. There is very little chance of infection.

Results

Your doctor will be able to tell you about some of the results of your nerve studies right after the tests. A full report may take up to 1 week.

I have read and understand these instructions:

Patient Signature _____

Date _____