Electromyography/ Nerve Conduction Studies

**What is an EMG/NCV?**

EMG stands for electromyography. NCV stands for nerve conduction velocity. Combined this is a sensitive test for nerve injuries. This test is commonly used to detect problems such as carpal tunnel syndrome, pinched nerve in your neck or back, generalized nerve injuries or muscle diseases. This test should only be performed by physicians trained as experts in eletrodiagnostics.

**Does it hurt?**

This is often the first question we get asked before doing the test. Most patients find it mildly uncomfortable. The test involves small stimuli to the nerves similar to a strong static electric charge. The test may also involve a small needle placed under the skin. If you are taking a pain medication you may take this before the test but most people do not find this necessary. It is our policy to stop the test if a patient finds it too uncomfortable. Stopping for discomfort is extremely uncommon.

**Why am I being sent for an EMG?**

You are being sent for electromyography (EMG) testing because you have numbness, tingling, pain, weakness, or muscle cramping. Some of the tests that the EMG doctor may use to diagnose your symptoms are nerve conduction studies (NCS), needle EMG. The EMG doctor will examine you to decide which tests to do based on your symptoms.

**Nerve Conduction Studies**

NCS’s show how well the body’s electrical signals are traveling to a nerve. This is done by applying small electrical shocks cause a quick, mild, tingling feeling. The doctor may test several nerves.

**Needle EMG (electromyography)**

For this part of the test, a small, thin needle is put in several muscles to see if there are any problems. A new needle is used for each patient and it is discarded after the test. There may be a small amount of pain when the needle is inserted. The doctor tests only the muscles that travel from the needle to the EMG machine. The doctor then uses his medical knowledge to figure out what could be causing the problem.

**How long will these tests take?**

The test usually takes 20-90 minutes. You can do your normal activities, like eating, driving, and exercising, before the tests. There are no lasting side effects. You can also do you normal activities after the test.

**How should I prepare for the tests?**

Tell the EMG doctor if you are taking aspirin, blood thinners (like Coumadin), have a pacemaker, or have hemophilia. Take a bath or shower prior to test to remove oils from your skin**. Do NOT use any body lotions and/or oils on the day of your test.**

**When will I know the test results?**

We will be happy to discuss your results with you on the day of the test. After the exam, check with the referring physician for the next step in your care. Your doctor will have results in a couple of days after the test or immediately if needed.