



# GLB Medical Consulting, Inc.

## Electromyography/Nerve Conduction Study (EMG/NCS)

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### What is an EMG/NCS test?

Electromyography (EMG) is a form of electrodiagnostic testing that is used to study nerve and muscle function. Commonly performed by a physiatrist or neurologist trained in this procedure, EMG testing can provide your doctor with specific information about the extent of nerve and/or muscle injury and can also determine the exact location of injury and give some indication whether the damage is reversible.

### What should you expect from EMG/NCS testing?

There are two parts to EMG testing: a nerve conduction study and a needle exam for muscle testing. Both may result in some discomfort, but are usually well tolerated without the need for medication beforehand. The nerve conduction study entails stimulating the nerves at different points with small electric shocks, artificially activating them so their function can be measured. The needle exam involves inserting very fine needles into several muscles. The needle has a microscopic electrode that picks up both the normal and abnormal electrical signals given off by a muscle. Routinely, your doctor will perform both parts of the procedure, but there are situations where only the nerve conduction or muscle testing is performed.

EMG testing usually takes anywhere from 30 to 90 minutes, depending on the condition being tested and findings of the study. A report that includes the results and an interpretation will be sent to your doctor.

### What you should know before an EMG/NCS test?

An EMG test is extremely safe. EMG needles are used for only one patient, are not recycled, and are immediately disposed of following use. Side effects may include some muscle soreness, which rarely lasts more than an hour or two after the exam. Patients on anticoagulation or blood thinners and those with pacemakers or implanted defibrillators should notify the physician performing the test, but generally this is not a contraindication. Patients with joint replacements or other artificial components in their body do not need to take antibiotics specifically for the EMG. Patients on medication should take their usual medication on the day of the test. No special preparation is necessary.

### Why has an EMG/NCS test been ordered?

If you have numbness, decreased sensation, tingling, radiating pain, or burning, your doctor may refer you for an EMG. Symptoms such as muscle spasms, weakness, and difficulty buttoning clothes, handling objects, or walking may also indicate the need for an EMG. Conditions that EMG testing helps diagnose include carpal tunnel syndrome, a pinched nerve, radiculopathy, sciatica, neuropathies, muscle diseases, muscular dystrophy, Lou Gehrig's disease, and myasthenia gravis.