

### NERVE CONDUCTION STUDY

Nerve conduction study (NCS) checks how quickly impulses travel between nerves. You will have small metal disks, called recording electrodes, attached to your skin with conduction gel on one part of your limb or body. Mild electrical currents are delivered from the machine through a pair of electrodes attached to another part of that limb or your body. These stimuli feel like a small shock (as a pinch or tingling) and are almost always well tolerated. One or more nerves may be tested during this procedure. The amount of the electrical current is always kept at a safe level. The test won't harm you but it may be painful.





#### **EMG**

Electromyography (EMG) assesses muscle function to evaluate if there is a problem in the muscle itself rather than the nerve. This can also be called the needle exam. No electric currents are used. The physician uses very thin, fine needles about one and a quarter inches long that are attached to the EMG machine. The skin is cleansed with an alcohol wipe and then the needle is inserted into the relaxed muscle to be evaluated. You may feel a pinch or a sting as it's inserted through the skin. When the needle is inside the muscle you may feel a pressure or discomfort. Since every patient tolerates discomfort and pain differently, it is impossible to predict how





## EMG, continued ...

discomforting and/or painful this test will be for you. Most patients describe the discomfort as mild. It will record the muscle activity and can be heard as static on the EMG machine. You will be asked to tighten your muscles to also evaluate them at work.

Minimal bleeding may occur during or after the test at the site of insertion of needle electrodes. Therefore, it is very important for you to disclose to your physician whether or not you have a bleeding problem, or whether or not you have been taking blood-thinning medication, such as Coumadin or Heparin.

Electrodiagnostic testing may interfere with the electrical devices implanted in the body.





## EMG, continued ...

Therefore, it is very important for you to disclose to your physician if you have such a device implanted in your body (for example, a pacemaker in the heart, defibrillator, cochlear implant, or spinal cord simulator).

Even though sterile, disposable electrodes are used for Electrodiagnostic testing, the site of insertion of needle electrodes may become infected, although the risk is minimal. This risk elevates, however, if normal hygiene is not maintained after the completion of the test. After the test, the muscle (or several muscles) may feel tender and bruised for a few days.





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