How long will the test last?

The length of the test can vary from 45 minutes to 1½ hours, depending on the nature of your problem(s). Outpatients should plan transportation and parking accordingly. Outpatients are asked to arrive 15 minutes prior to their scheduled appointment time.

How will I know the results?

Outpatients

The physician in charge of the nerve conduction and EMG testing may discuss the results with you immediately following test completion, or, may feel that other tests are still needed. In either case, a full report of your test results will be sent to the doctor who referred you. Your referring doctor may request that he/she see you in follow-up after you have had your nerve conductions and EMG done.

Inpatients

The physician in charge of the nerve conduction and EMG testing may discuss the results with you immediately following test completion, or, may feel that other tests are still needed. In either case, a full report of your test results will be sent to the doctor who is treating you in hospital. He/she will likely discuss these results with you and how they might affect your treatment.
What is the purpose of Nerve Conduction Studies and Electromyography (EMG)?

Nerve conduction studies and electromyography are tests that aid in evaluation of the nerves and muscles in the body.

What are Nerve Conduction Studies and Electromyography?

Nerve conduction studies
This test records the amount of time needed for a specific nerve to conduct an impulse from one point to another. A small electrical stimulus, which feels like a 'tap', is applied to the nerve(s) being investigated. Wires, or electrodes, that record nerve impulses are placed on the top of the skin, a short distance from where the stimulus is applied. These ‘recording’ electrodes pick up the signal that is sent along the nerve after it is stimulated.*

Electromyography
This test involves the insertion of a fine, sterile needle into one or more of your muscles. You will be asked to relax and/or contract the muscle being studied. The needle transmits the signal from the muscle to the electromyography machine where it is interpreted by the physician performing the test. NO stimulus is applied through the needle.

Does the test hurt?
The tests may be uncomfortable, but almost everyone tolerates them quite well. The electrical stimulation applied during nerve conduction tests causes some discomfort, similar to that odd feeling you get in your little finger when you tap your "funny bone" at the elbow. The needle test also causes some discomfort, although it should be less painful than an injection because nothing is being injected and needles are very finely tapered. Note also that the needles are single-use: each patient gets a new one to eliminate the possibility of transmitting infections. Aftereffects of the testing may include some tenderness in the tested muscles for a few hours, and will not affect your walking, driving or any of your other usual activities.

How should I prepare for Nerve Conduction Studies and Electromyography?
There is no special preparation for the tests. Both hospital patients and outpatients should use the washroom, if needed, prior to starting the tests. Hospital patients should do this prior to leaving the ward for the tests.

Outpatients are advised to wear loose, comfortable clothing and/or clothing that is easy to slip out of. Hospital shirts and shorts are provided when required.

All patients are asked to avoid application of creams to the skin on the day of testing as this can interfere with electrode contact.

* Magnetic stimulation may also be used to stimulate nerves that are difficult to stimulate with electrical stimulation.