

Patient Information

Nerve Conduction Studies (NCS)

The NCS tests how well signals travel along a nerve and can help find the cause of abnormal nerve function. Signals are made to travel along the nerve by applying small electrical pulses to the nerve at one site and recording the response at a different place along the nerve or muscle using metal discs or a wet pad placed on the skin. The small electric pulses cause a short, mild tingling feeling. The nerve's response is picked up by a recording instrument and measured by the neurologist or medical scientist performing the test. Several nerves may need to be tested depending on the problem.

Needle examination (EMG or Electromyogram)

During the needle portion of the examination, the neurologist inserts a small needle into a muscle to record the natural electrical activity of the muscle. The electrical activity of the muscle is fed into the recording instrument and the neurologist then analyses it by looking at a signal on the scope and listening to the sounds the activity makes through the speaker. This test can help determine if there are abnormalities in the muscle or the nerve going to it.

There may be mild discomfort when the needle is inserted into the muscle. The needles are sterile and are discarded immediately after use to prevent the transmission of infection.

Patient Preparation

Avoid using skin lotions the day of the test.

You should inform the doctor prior to the examination if you are taking blood thinning medication (Warfarin or Aspirin) or bleed easily. If possible, wear loose-fitting clothing that permits access to the muscles and nerves to be tested.

You may be given a hospital gown to wear.

The examination usually takes between 30 to 90 minutes. There are no restrictions on activity before or after the testing and there are no lasting after effects.