

Electromyography & Nerve Conduction Studies

A nerve conduction studies (NCS) and/or an electromyogram (EMG) helps your doctor decide if your condition has affected your nerves. The exam is done while you are lying down either on your back, side or abdomen. The exam usually takes about an hour.

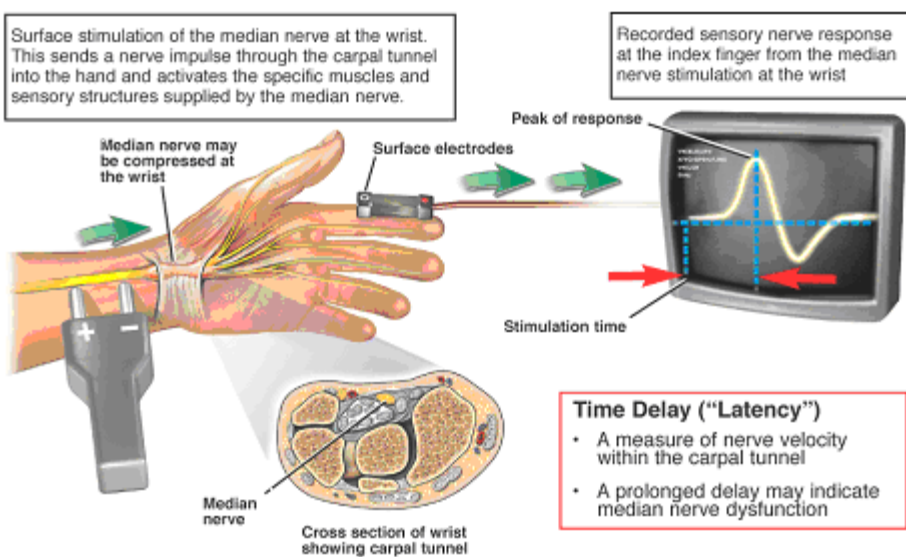
Nerve Conduction Studies (NCS)

The NCS test measures how fast nerve impulses travel within your body. If there is a blockage of these impulses, this may indicate nerve injury, as shown here for carpal tunnel syndrome. The doctor will press a surface electrical stimulator on your skin, overlying a specific nerve, and then stimulate the nerve through the skin. The response will be detected by surface electrodes placed over a muscle or patch of skin (supplied by the nerve).

Electromyogram

Electromyography translates to "the writing down of the electrical activity of muscle," and can be likened to electrocardiography (EKG), commonly used for the heart. To sample muscle electrical activity, a small needle electrode (much smaller than a standard needle for drawing blood) will be inserted through your skin and into a muscle. At some point, you may be asked to contract the muscle. This procedure may be repeated for a few or many of your muscles. The electrode is connected to a computer for analysis.

Sensory Nerve Conduction Studies (Electrodiagnosis) of the Median Nerve Across the Carpal Tunnel



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What to expect ?

The nerve conduction studies are usually well tolerated. For the EMG, when the electrode is placed within the muscle, patient responses range from no discomfort to some level of pain.

If you're anxious about the procedure, call our office and we may be able to pre-medicate and help sedate you, provided you are accompanied by a designated companion and driver.

When the examination is over, there is usually no further discomfort. Prior to the test you can eat and take your usual medications. Afterwards, a typed report is sent to your doctor. Your doctor uses this report with other information to help decide a treatment plan.



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15 Newark Avenue, Belleville, NJ 07109



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