Accurately diagnosing and treating pain with personalized care

Our network of pain management physicians treats a variety of conditions, using comprehensive diagnostic techniques and non-surgical treatments for all musculoskeletal pain.

To learn more about conditions treated, visit NationalSpine.com or ask your affiliated physician.

LEAVE PAIN BEHIND.
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Electrodiagnostics

Important Tools in Diagnosing Nerve and Muscle Pain

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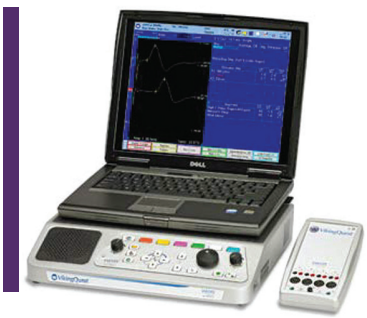
Treatment Brochure

Pain, weakness, tingling and numbness—all of these symptoms can be caused by problems with nerves or muscles, and they can be physically disabling.

Electrodiagnostic tests reveal how well your nerves and muscles are working and determine the existence, type and extent of any damage.

Identifying the exact source of pain is an important step toward restoring your health. Our network of pain management physicians is able to perform today's most advanced diagnostic procedures and is committed to finding answers that will relieve your pain.



Electrodiagnostics

Important Tools in Diagnosing Nerve and Muscle Pain

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What is electrodiagnostics?

The human body has been likened to an electrical generator. In particular, nerves and muscles create electrical signals that deliver messages to and from your brain.

Damage to nerves and muscles can slow or stop the travel of these electrical signals. If you have pain, weakness or numbness in your back, neck or limbs, measuring the electrical activity in your nerves and muscles can help your doctor make a proper diagnosis.

Electrodiagnostic testing measures the speed and strength at which electrical impulses travel within and between nerves and muscles. A damaged nerve or muscle will transmit a weaker and slower electrical signal.

Electrodiagnostic testing often is divided into the following two parts, conducted during the same session:

- Nerve conduction velocity (NCV) or Nerve Conduction Studies (NCS) – Flat electrodes are attached to the patient's skin over the affected nerve. Several small electrical pulses are given to the nerve, and the resulting electrical activity is recorded. Depending on the symptoms, several nerves may be tested.
- Electromyography (EMG) – In this test for muscle function, a small, thin, needle-like probe is inserted into muscle tissue in order to evaluate the connection between the muscle and the nerve.

Electrodiagnostics may be used to evaluate such conditions as radiculopathies, carpal tunnel syndrome, myopathies and peripheral neuropathies, just to name a few.

How long does it take?

Electrodiagnostics are safely performed in a sterile, office-based setting. Depending on the symptoms and the number of nerves and muscles to be tested, the tests can take from 15 minutes to two hours or more. Patients are advised not to wear lotion on their skin on the day of testing, as this will interfere with the ability to obtain data.

What are the expected results?

Patients typically return to work or normal activities following a study. The information provided by this diagnostic tool can help determine the most effective treatment approach for chronic pain caused by damaged nerves and muscles.

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