### Will I experience pain?

This is the most common question. The nerve conduction study mimics the sensation of receiving a shock from static electricity. The EMG resembles a sharp poke, followed by a deep muscle ache. The test can be uncomfortable at times but not unbearable. Some mild muscle soreness may persist for a short period of time.

#### What are the risks of this test?

As with all medical procedures, there are risks. Anytime the skin is broken by a needle there is a risk of infection, pain at the site, swelling, bruising or bleeding.

The most serious risk of procedures in the upper back and chest is a pneumothorax (collapsed lung), which could lead to hospitalization and need for further treatment.

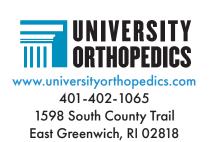
Though rare, complications can occur and your doctor will address these prior to your procedure.

#### About our physician

#### Matthew J. Smith, MD

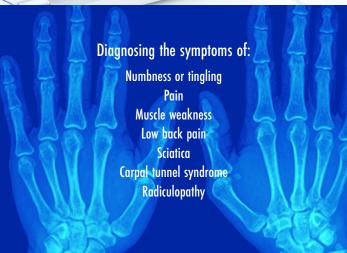
Dr. Smith received his EMG/NCS training during his Physical Medicine & Rehabilitation residency at Stanford University and during his fellowship at the University of Michigan Electrodiagnostics Laboratory. He completed the American Association of Neuromuscular & Electrodiagnostic Medicine's accreditation process in May 2001.





# EMG/Nerve Conduction Studies Electrodiagnostics







# What is an EMG/NCS?

EMG or electromyography is a study that examines the nerves and muscles of the body.

The test may include nerve conduction studies (NCS), needle electromyography or evoked potentials. The physician performing the study will first examine you in order to determine what aspects of the test are needed.

# Why do I need an EMG/NCS?

Your doctor has ordered this test to help determine the cause of your symptoms. This text is extremely important in making a diagnosis and directing your treatment.

EMG/NCS testing also provides a measure of the severity of your condition. A negative test suggests that your symptoms are not dangerous and that it may be safe to continue with conservative care. A positive study indicates that the electrical conduction of the nerve is being physically affected. In this case, more aggressive treatment may be appropriate.

### How long will the test take?

The test will take 30-45 minutes typically. Occasionally, the test may last up to one hour.

You may return to your normal activities after the test is performed.

There are no lasting side effects, however some patients may experience minor muscle soreness for a short period of time.

# How can I prepare for the study?

Inform your physician if you are taking Coumadin (warfarin), a blood thinner or if you have a pacemaker. It is permissible to continue taking the rest of your normal medications. Pain medicine or other medicines will not affect the results of the test.

Bring a list of medications with you. Take a bath or shower prior to the study to remove the natural oils from your skin. Do not use lotions on the day of the study.

### How are the tests performed?

#### Needle EMG

This test examines the electrical signals of your muscles. A thin needle (pin) is placed in several muscles of the affected region. The doctor looks at the monitor and listens to the signals.

#### Nerve Conduction Study (NCS)

NCS examines how well the nerve is conducting a signal. A small electrical potential is produced (i.e., shock) causing a mild tingling sensation. Several nerves may be tested in this manner.

# Who administers the testing?

Dr. Smith is a board certified Physical Medicine & Rehabilitation physician who specializes in EMG testing.

#### When will I receive the results?

The results may be discussed with you on the day of the study or an additional appointment will be scheduled with our office or a referring physician.

