Electrodiagnostic (EDX) Medicine is the study of nerve and muscle diseases. To determine whether your nerves and muscles are working properly, your doctor may recommend you have EDX testing, which may include a nerve conduction study (NCS) and a needle electromyography (EMG) test. The results of the tests help your doctor diagnose your condition and determine the best course of treatment.

WHAT EXACTLY ARE NERVES & MUSCLES?
Nerves work like electrical cords—they send signals from your body to your brain and your brain to your muscles. Your muscles are the tissues in your body that make you move.

When working properly, the nerves send electrical impulses to the muscles. A nerve disorder means that signals are not getting through like they should. A muscle disorder means that muscles are not responding to the signals correctly.

ONLINE RESOURCES
Visit www.aanem.org/patients for more information on muscle and nerve disorders, to find an EDX specialist or board certified doctor, to find an accredited laboratory, and to watch the video, “What to Expect During a Nerve Conduction Study and EMG Test.”

WHAT TO EXPECT DURING AN EMG

YOUR SCHEDULED APPOINTMENT
Date: _____________________________
Time: _____________________________
With: _____________________________

If you have any questions, they will be answered at the time of your examination, or call: _____________________________

THE BEST COURSE OF TREATMENT
WHY AM I BEING SENT TO THE EDX LABORATORY?

You are being sent to the EDX laboratory because you may have numbness, tingling, pain, weakness, or muscle cramping. The doctor will use one or more EDX tests to determine if your muscles or nerves are damaged and, if so, how to treat you.

HOW DO I PREPARE FOR THE TESTS?

Tell the doctor performing the tests if you:
- take aspirin or blood thinners (like Coumadin);
- have a pacemaker, or
- have hemophilia. On the day of the test, take a bath or shower to remove oil from your skin and do not use body lotion. If you have existing conditions, ask your doctor if you should take any medications before the test.

WHAT WILL HAPPEN DURING THE TEST?

There are usually 2 parts to the test:

- Needle EMG Testing
- Nerve Conduction Studies (NCSs)

NEEDLE EMG TESTING: During the EMG test, the doctor inserts a small, thin needle into the muscles and nerves. The doctor is able to hear and see how your muscles and nerves are working by the way electrical signals travel from the needle to the EMG machine. The doctor then uses this information to determine what is wrong with your muscles and nerves. The only muscles tested are those needed to decide what is wrong.

Each study is designed especially for you based on your symptoms. The length of the test is different for every patient. The tests usually take 30 to 60 minutes. You may perform normal activities like eating, driving, and exercising before and after the test. There are no lasting side effects.

NCS TESTING: During the NCS, the doctor or technologist applies small electrical shocks to your nerve(s) to study how the nerve works. These shocks cause a quick, mild, tingling feeling. The doctor or technologist may test several nerves during your study.

HOW LONG DOES THE TEST TAKE?

The tests usually take 30 to 60 minutes. You may perform normal activities like eating, driving, and exercising before and after the tests. There are no lasting side effects.

WHEN WILL I KNOW THE RESULTS?

After the tests are complete, the doctor will discuss your test results with you or send them to your referring doctor. After the examination, you can check with the doctor who sent you to the EDX laboratory for the next step in your care.

HOw will the results affect me?

The doctor then uses this information to determine what is wrong with your muscles and nerves. The only muscles tested are those needed to decide what is wrong.

A new needle is used for each patient and is thrown away after the test. There may be a small amount of pain during the study.

WHAT WILL HAPPEN AFTER THE TEST?

After the examination, you can check with the doctor who sent you to the EDX laboratory for the next step in your care.

WHO WILL PERFORM MY EDX TESTING?

The American Association of Neuromuscular & Electrodiagnostic Medicine (AANEM) recommends a medical doctor (MD) who is board certified in neurology or physical medicine and rehabilitation or a DO who is board certified in neurology or the American Board of Physical Medicine & Rehabilitation who perform EDX testing. You have the right to ask if the EDX doctor is certified by the American Board of Psychiatry and Neurology or the American Board of Physical Medicine & Rehabilitation. While your EMG will be performed by a doctor, he or she may instruct a technologist to perform your NCS. The technologist should be supervised by the doctor. A technologist may perform other studies while the doctor performs your EMG.

AANEM recommends that you choose a doctor who has completed additional EDX training, which teaches doctors how to properly diagnose nerve and muscle disorders. The American Board of Electrodiagnostic Medicine (ABEM) certifies doctors who have completed extensive training in electrodiagnostic medicine and are eligible to perform EDX testing.