

# Electromyography

An electromyography (EMG) is a test that measures the electrical activity of muscles and nerves. It helps your physician find the site, nature and extent of any muscle or nerve problems. An EMG test has 2 parts:

- › Nerve conduction studies
- › Needle examination

If you have any questions,  
please ask your physician.

## Nerve conduction studies

Nerve conduction studies (NCS) are the 1st part of the test. A series of electrical impulses will stimulate your nerves. The technologist (tech) will record your responses from different parts of your arm or leg. You will feel a mild tingling sensation where the tech places the stimulator. The results show us the condition of your nerves.

## Needle examination

A needle examination is the 2nd part of the test. The physician will insert a small needle into the muscles to measure the activity of the muscles and nerves. The results help us find the cause of your muscle or nerve problems.

## How to prepare for the test

To schedule the test, you must have muscle or nerve symptoms for at least 3 weeks. Otherwise, the EMG may be falsely normal.

## Test precautions

Call 312.926.8120 (TTY: 711) if you have any of the following:

- › Internal nerve stimulator (such as a bladder or spinal cord stimulation device)
- › Cardiac defibrillator
- › Bleeding disorder
- › Lymphedema

Let us know right away if you take medication such as:

- › Anticoagulant (blood thinning) medication
- › Pyridostigmine (Mestinon®)

Your physician will give you instructions about your medications.

## Day of the test


- › Do not use oil or creams on your arms and legs.
- › Eat a normal breakfast and/or lunch.
- › Take your medications, including pain medications, as instructed.
- › Wear gloves to keep your hands warm and socks to keep your feet warm. This will help speed up the testing.

Come to the Neurological Testing Center (NTC) on the 7th floor of Galter Pavilion at 675 North St. Clair Street. Parking is at 222 East Huron Street. To get a discounted rate, you can validate your ticket at the NTC.

## What to expect

The test usually takes about 1 to 2 hours. We may ask you to change into a gown before NCS and/or EMG testing.

During the NCS, the tech will tape a small recording electrode on your skin. The tech will send an impulse through an electric stimulator placed on the skin. The electrode will record the nerve signal. It will show up on a screen. The small shock may tingle or make your muscle twitch for a moment, but this is not harmful.



During the needle exam, the physician will insert a needle electrode into the muscle. They will ask you to contract or move the muscle for a few moments. The electrode will transmit the muscle signal to a screen.

## After the test

- › When finished, the tech will remove the electrodes.
- › You may have minor discomfort after the EMG. Please contact your physician if pain increases.
- › Check with your physician in 2 business days to discuss the results and further treatment.

To learn about neuromuscular disorders, visit **nm.org**.

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