



## What is EMG & NCS?

EMG is Electro-Myography.

NCS is a Nerve Conduction Study.

An EMG test measures the electrical activity of your muscles at rest and when you tighten them. It helps to find diseases that damage muscles or nerves or to find why you cannot move your muscles (paralysis), why they feel weak, or why they twitch.

Nerve conduction studies (NCS) measure the nerves' integrity and ability to send and receive electrical signals.

A nerve conduction study to find damage to the nerves that lead from the brain and spinal cord to the rest of the body (peripheral nervous system), and often used to help find nerve disorders, such as carpal tunnel syndrome.

EMG and nerve conduction studies are often performed together, and Nerve conduction precedes EMG

## How to prepare?

You may need the list of all medications and supplements as some medicines can interfere with the test result. You may need to stop taking some medicines before you have this test. If you take aspirin or some other blood thinner, be sure to talk to your doctor.

If you have a pacemaker or any medical device installed, you need to tell your doctor.

Wear loose-fitting clothing, especially extremities. It is advisable to keep the upper arms and legs exposed or easy to present for the test.

Keep skin clean and free of sprays, oils, creams, and lotions.

## What do you expect?

For an NCS and EMG, you may be asked to sign a consent form. Talk to your doctor about any concerns you have about the need for the test, its risks.

## Duration

It depends on the complexity of the test, between 20 min to 90 minutes.

## For nerve conduction studies:



The technologist will attach two types of electrodes to your skin. One type of electrode is placed over a nerve and will give the nerve an electrical pulse. The other type of electrode is placed over the muscle that the nerve controls. It will record how long it takes the muscle to react to the electrical pulse.

You will feel the electrical pulses. They are small shocks and are safe.

### **For an EMG:**

Your doctor will insert a sterile single-use needle electrode into a muscle. This needle will record the electrical activity while the muscle is at rest.

You may feel a quick, sharp pain when the doctor inserts a needle electrode into a muscle.

Your doctor will ask you to tighten the same muscle slowly and steadily while we record the electrical activity. Your doctor may move the electrode to a different area of the muscle or a different muscle.

### **What to expect after the test?**

After an EMG, you may be sore and have a tingling feeling in your muscles for up to 2 days. You may have small bruises or swelling at the needle site.

If the test areas are painful, please apply ice or a cold pack on the field for 10 to 20 minutes at a time. Take over-the-counter pain medicine, such as acetaminophen (Tylenol), ibuprofen (Advil, Motrin), or naproxen (Aleve). You can leave right away and get back to your usual activities immediately.

### **When should you call for help?**

If pain from an EMG test site gets worse or swelling, tenderness, or pus at any of the needle sites, you should visit the family doctor immediately.

Must have your Patient's OHIP card with you, not just the number  
**Must arrive 15 minutes before the appointment to register**

**NCS APPOINTMENT DATE** \_\_\_\_\_

**EMG APPOINTMENT DATE** \_\_\_\_\_