



Electromyography

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AMERICAN UNIVERSITY of BEIRUT MEDICAL CENTER

المركز الطبي في الجامعة الأمريكية في بيروت

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What is electromyography?

Electromyography (EMG) is a test that measures the electrical activity of your nerves and muscles. It consists of two phases. The first one is nerve conduction study (NCS) during which the technologist measures the speed of the electrical signals traveling through a nerve. In the second phase the doctor measures the electrical activity in the muscles. This is known as needle EMG.

Why would I need an EMG?

Your doctor might recommend doing an EMG to:

- Diagnose nerve and muscle disorders
- Determine the cause of symptoms such as muscle pain, numbness, tingling, fatigue, loss of balance, muscle weakness, or muscle cramps

How do I prepare for the EMG?

- On the day of the test, you can eat and drink regularly.
- Inform your doctor about the medications you are taking especially blood thinners. He/she may ask you to stop or adjust the dose of any of your medications before the test.
- Make sure to inform the doctor if you have a pacemaker.
- Take a bath or shower before the test. Avoid applying any lotions or creams to your body.
- Be at the Medical Center at least 30 minutes before the scheduled test time.

How is the EMG done?

- The technologist will ask you to remove any jewelry or metal objects (such as hairpins, eyeglasses, etc.) before the test.
- You may be asked to take off some of your clothes and wear a patient gown.
- You will be asked to sit or lie down to start the nerve conduction study.
- The technologist will locate the nerve(s) to be examined and apply an electrode on the skin covering it. He/she will apply another electrode at a distance away from the first one.

- The technologist will then apply a mild electrical current to the nerve through the electrode. You may experience mild tingling in the hand or foot for a short period of time. The stimulation of the nerve and the detected response will be recorded on a monitor.
- When the nerve conduction study is completed, the doctor will perform the needle EMG.
- The doctor will locate the muscle(s) to be examined and clean the area with an antiseptic solution. Then, he/she will place an electrode on your arm or leg.
- The doctor will then insert a thin needle into the muscle. Several needle insertions may be done. You may experience mild discomfort.
- The doctor will ask you to contract or rest the muscle at certain times.
- The EMG takes around 15 minutes.

What happens after the EMG?

- After the EMG, you can go home and resume your daily activities as usual.
- You can receive the official report from the Neurophysiology Lab after two working days. Your doctor will discuss the findings of the test with you.

When should I contact the doctor?

Contact your doctor immediately if you have:

- Swelling, redness, or bleeding/discharge at the injection sites
- Any infection sign such as fever and chills

For any questions or concerns, please visit the Neurophysiology Lab or contact us on 01 - 350000, ext. 7572. We are available Monday through Friday from 8:00 am till 5:00 pm. We are here to answer all your questions.

