

Nerve Conduction Studies & EMG



If you have any English language difficulties, please ask staff to book an interpreter.

From home contact the Telephone Interpreter Service on 9605 3056.

Services are provided free of charge. Ask staff if this information is available in your preferred language.

What are nerve conduction studies and EMG?

Nerve conduction studies and EMG (electromyography) are used for patients who have symptoms such as weakness, numbness, tingling, and pain. These tests measure the ability of nerves and muscles to work properly, and may help to diagnose certain disorders of the nervous system. The tests are performed by a specialist doctor (a neurologist) or specialist technician.

In a nerve conduction study, small electrical pulses are applied to the skin, usually over the arms or legs. This causes the nerves underneath the skin to send a signal that can be recorded on a computer. Each electrical pulse causes a short, mild tingling feeling on the skin which may be slightly uncomfortable but is not painful.

In an EMG, a small thin needle is put into the muscles, usually of the arms or legs. The needle measures the natural electrical activity of each muscle, which can be seen as a graph on the computer screen or heard as a sound on the computer speakers. The needle that is used for EMG is always sterile and is thrown away immediately after use, so that there is no possibility of transmitting infections.



What should I expect when I am having this test?

The test takes between 20 to 60 minutes, depending on the type of symptoms you have. After arriving for the test, you may be asked to warm up your hands in a basin of warm water. This is because nerve conduction tests are not as accurate if your hands and feet are too cold. Please tell the doctor or technician doing the test if you have a tendency to bleed easily or if you are taking a blood thinning medication, such as warfarin.

What do I need to do to get ready for this test?

- Continue your normal activities.
- Wear loose fitting clothing with sleeves and trouser legs that can be rolled up to test the nerves and muscles in the arms and legs.
- Don't use any skin creams and skin lotions on the day of the test.
- Take your normal medications on the day of the test unless your own doctor has told you not to.

What to bring?

Please remember to bring your referral letter and your Medicare card to the appointment.

Does this test have any potential side-effects?

Side-effects of this test are extremely rare. Very occasionally, some bruising may occur in the muscles where the EMG needle has been inserted. You are usually able to return to your normal activities straight after the test.

What happens after the test?

The results will be looked at by the neurologist and a final report is then sent to the doctor who referred you for the test. Your doctor will explain what was found, and use the information in the report to decide on future treatment plans.

If I have any questions who should I contact?

Please contact the staff at the Neuro-Diagnostic Unit on 9895 4639 (office hours: Mon- Fri, 8.30am to 4.30pm).



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