

Nerve Conduction Studies (NCS) & Electromyography (EMG)

Nerve conduction studies (NCS) are a type of diagnostic test used to evaluate the function of your nerves. They are commonly used to help diagnose conditions such as carpal tunnel syndrome, peripheral neuropathy, and nerve injuries. NCS are typically performed by a neurophysiologist or technician with specialist training.

During the test, small electrodes are placed on your skin over the nerve being studied. A small electrical impulse is then applied to the electrode, which stimulates the nerve. The resulting electrical activity is recorded and analysed to determine the speed and strength of the nerve signals.

NCS are generally safe and non-invasive, although you may experience some mild discomfort or tingling during the test.

Electromyography (EMG) is a diagnostic test that evaluates the health of muscles and the nerves that control them. EMG involves inserting a thin needle electrode through the skin into the muscle being tested. The electrode measures the electrical activity of the muscle at rest and during contraction.

EMG is often performed in conjunction with nerve conduction studies to help diagnose and evaluate nerve and muscle disorders. EMG can also be used to assess the severity and progression of muscle disorders.

During the test, the patient may feel some discomfort from the insertion of the needle electrode and the mild electrical stimulation used to measure the muscle and nerve activity. The procedure typically takes 30 to 60 minutes, depending on the number of muscles being tested.

The duration of the test varies depending on the number of nerves and muscles being evaluated, but it typically lasts between 20 and 60 minutes. Patients should also avoid applying lotion or oil to their skin on the day of the test, as it may interfere with the electrode's ability to pick up the electrical signals.

It is important to let your team know if you have any implanted devices such as pacemakers or defibrillators, as these may be affected by the electrical impulses used in the test. It is also important to let us know if you are on any blood-thinning medications.

After the test, you can resume your normal activities. Your results will be reviewed by the specialist and shared with your consultant or GP, who can discuss the report with you at your next appointment.