

# Nerve Conduction Studies

Patient Information

## What are Nerve Conduction Studies?

These are tests of the nerves mainly in the hands, arms or legs and occasionally elsewhere in the body. The studies are performed by passing small electrical currents through the skin and recording the natural electrical signals from the nerve or over the muscle. This is usually done by stickers/pads attached to the skin, needles are not used. The electrical pulses produce a strange tingling sensation which can be a little uncomfortable but not generally painful. Your muscles may have brief uncontrollable twitches as the nerve is being stimulated.

## What is done?

Nerve Conduction Studies are performed to:

- Detect and evaluate damage to the peripheral nervous system, which includes the nerves leading away from the brain and spinal cord and smaller nerves that branch out from those nerves. Nerve conduction studies are often used to help diagnose nerve disorders.
- Identify the location of abnormal sensations such as numbness, tingling or pain.

This test takes about 15-20 minutes. There are no after-effects and you will be able to undertake all normal activities after the test. The results of the investigation need to be analysed afterwards and a full report will be sent to the referring Clinician.

**Depending on the results found the doctor may proceed to carry out Electromyography Studies as detailed overleaf.**

## What is Electromyography (EMG)?

An EMG measures the electrical impulses of muscles at rest and on contraction. This is normally done with a fine needle inserted into the muscle. Once the electrode is in place the electrical activity in that muscle is recorded while the muscle is at rest. Then the doctor asks you to tense (contract) the muscle with gradually increasing force while the electrical activity is being recorded.



## Why is it done?

EMG is done to:-

- Diagnose diseases that damage muscle tissue, nerves or the junctions between nerve and muscles.
- Evaluate the cause of weakness, paralysis, involuntary muscle twitching or other symptoms.

## What Preparation is needed?

It is helpful if the hands and feet are as warm as possible. Loose fitting clothes are also helpful as it gives easier access to the upper and lower limbs.

Please do not apply any moisturiser/cream to the part of the body being examined.

There are no after-effects and you will be able to drive afterwards.

**\*\*Important\*\***

**If you have an implanted device (i.e. Pacemaker, Defibrillator or Cochlear Implant) you must inform the Doctor/Technician prior to the test.**

If you have any concerns or questions regarding this test please contact our team on the Telephone Number:

**0161 621 3838**

Pennine MSK Partnership Ltd  
Oldham NHS Integrated Care Centre  
New Radcliffe Street  
Oldham  
OL1 1NL