

## Nerve Conduction Studies and Electromyography

### Nerve Conduction Studies (NCS)

These are tests of the nerves in the hand, arms and legs and occasionally, elsewhere in the body. The studies pass small electrical currents through the skin and make recordings of the natural electrical signals further down the nerve or over a muscle. This is usually done with pads attached to the skin and needles are not usually used. The electrical pulses produce a strange tingling sensation, which can be uncomfortable but should not be painful. Your muscles may have brief uncontrollable twitches.

These tests take about 30 minutes. There are no after effects and after the test you will be able to go home or to work/school.

### Implanted electrical devices

Prior to your appointment, please inform the department if you have an implanted electrical device like a **pacemaker or defibrillator**. We will require some details about your device.

The Neurophysiology doctor may require your defibrillator to be turned off for the duration of the tests; we will pre-book a cardiac physiologist to do this on the day. After your tests are completed, your device will be turned back on by the cardiac physiologist.

If you have any queries or concerns regarding your device being turned off, please ring the Neurophysiology department and speak to a member of staff before your appointment.

If you do not want your device turned off, please ring and inform the department before your appointment.

Please inform the doctor or the physiologist if you have a pacemaker or defibrillator before your tests are started.

### Electromyography (EMG)

Depending on the nature of your problem, it may be necessary to record the naturally occurring electrical activity within your muscles. This is normally done with a fine needle inserted into the muscle. The small size of the needle means that it should not be too uncomfortable. As with all needles, this can sometimes leave a bruise and the muscles may feel sore for a while after the test. There will be no other side effects. If there is any persistent pain or swelling you should inform your GP.

### What preparation is needed?

It is helpful if your hands and feet are as warm as possible.

Please do not use hand lotions or creams.

Loose fitting clothing that can be rolled up to above the elbows and knees would be very helpful. Bracelets and watches will have to be removed for tests on the hands and socks or tights removed for tests on the feet.

## Information for Patients

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If you are taking any medication you should take your tablets at the usual time. If you have any questions or any concerns about the test, please talk to the doctor or physiologist before the start of your test.

## Results

You will not get the results of the test on the same day. The results of the investigation need to be looked at afterwards and a full report by the Consultant Clinical Neurophysiologist will be sent to the referring doctor/Consultant.

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