

Patient Information

Neurosciences

Nerve Conduction Studies (NCS) and Electromyography (EMG)

Welcome to the Neurophysiology Department. We hope the following information will be helpful to you.

You have been referred to us for assessment of nerves and muscles and their connections in the body.

The tests will help the doctor to diagnose and manage your symptoms. There are no alternatives to this form of testing.

If you have any queries or concerns after reading this leaflet, please ask a member of staff.



What are Nerve Conduction Studies (NCS) and Electromyography (EMG)?

The body's electrical signals travel within nerves. Nerve conduction studies (NCS) look at how well and fast the nerves in your body send these electrical signals. NCS will be carried out by a doctor or clinical physiologist.



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You may also need an EMG test which looks at how the muscles are working. A very fine needle is put in the muscles to record the muscle activity. EMG is always carried out by a doctor. The needle and electrodes are disposable so there is no risk of infection from another person to you.

The tests usually take around 20 minutes but can take up to 45 minutes depending on the problem.

If you find the test uncomfortable, it can be stopped at any time.



What will I feel?

Nerve conduction studies are performed by applying pulses via electrodes attached to your skin. These pulses mimic electrical signals made by your nerves. This can be a little unpleasant, but should not cause too much discomfort.

If a needle EMG is required this should not be too uncomfortable. As with all needles, this can sometimes leave a small bruise and there may be mild soreness for a while after the test.

Are there any risks?

You may feel slight tenderness after an EMG, but this only occurs very occasionally.

If there is any persistent redness or swelling, you should contact us 024 7696 5121.



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Preparing for the tests

- Make sure that your clothes can be rolled up to above your knees and elbows. Please be aware that if we are testing the lower limbs, you will be asked to take off shoes and socks, tights or stockings. Depending on the test, we may occasionally ask you to remove your top or trousers.
- Please wear minimal jewellery, as it can get in the way during testing.
- Try to keep your hands and feet warm for the test. You can do this by wearing gloves and socks.
- **Do not** apply creams or ointments on the day of the test as they can interfere with the test. Please take a shower or bath to remove any oils from your skin.

After the test

After the test you will be able to go back to your usual activities.

Do not forget:

- If you have a pacemaker or are taking blood thinning medicines, such as warfarin, please let us know at the time of the test.
- Let us know at the time of the test if you are prone to infections.
- Arrive on time for your appointment. Allow yourself time for parking as this can be difficult.

Contact details

Neurophysiology

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Patient Information

The Trust has access to interpreting and translation services. If you need this information in another language or format please contact 024 7696 5121 and we will do our best to meet your needs.

The Trust operates a smoke free policy.

To give feedback on this leaflet please email feedback@uhcw.nhs.uk

Document History

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