NHS
Lancashire Teaching Hospitals
NHS Foundation Trust

# Information for patients and carers

## Nerve Conduction Studies (NCS) and Electromyography (EMG)

Neurophysiology

**You have been referred for nerve conduction studies (NCS) and electromyography (EMG) test at the Royal Preston hospital. This leaflet will give you more information on what to expect from this test.**

## What are NCS?

hey are tests that check how the nerves are working. They are tests that check how the nerves are working. hey involve placing small pads or rings on your skin and stimulating the nerves using small electrical impulses. The impulse is carried along the nerve and the response is recorded at another position further along the nerve. NCS assess nerve function and can identify signs of trapped or damaged nerves.

## What is EMG?

EMG records the electrical activity that your muscles produce. It involves inserting a very small needle electrode into the muscle through the skin. The activity is examined when the muscle is at rest/ relaxed and then when it is used. These tests can help diagnose a wide range of nerve and muscle problems.

## Will I feel anything?

Nerve conduction tests will produce an odd tapping or tingling sensation.
With EMG you will feel a brief pinprick sensation when the needle electrode is inserted but there are no electrical impulses.

## Are there any risks or side effects?

**Please contact the department** if you are taking any of the following anticoagulant (blood thinning) medications as we may need some further information: Warfarin, Dabigatran, Rivaroxaban, Xarel, Apixaban

Pacemakers, defibrillators, and other implanted stimulators that use modern bipolar implanted devices are safe. If you have an implanted

device and are concerned, please contact the department for further advice.

## How do I prepare for the test?

- Clean, bare, and warm skin
- Bracelets, rings, and watches will need to be removed we will test both hands/arms
- Loose fitting clothing that can be rolled above the elbow and/or knee (if we are testing your legs) is helpful to avoid the need to change into a hospital gown
- Please avoid the use of hand-creams/ lotions as they interfere with electrode contact
- Try to ensure that the affected area is warm by wearing gloves and/or socks if the weather is cold

## On the day

You can take all medications as normal prior to the test unless instructed otherwise. Please bring an up-to-date list of medications with you to your appointment. You can eat and drink as normal.

## What happens after the test?

You can return to your normal daily activities following the test, including driving.

The consultant who referred you will receive a written report around 2 weeks after your test. They will then contact you to discuss the results and further treatment options, if necessary.

## How long does the test take?

The test usually lasts around 45 minutes. Depending on individual circumstances, the test may take longer.
If you are unsure about any aspect of the test, please do not hesitate to ask for more information.

## Contact details

Should you require further advice or information please contact:

Department of Clinical Neurophysiology
Royal Preston Hospital
Sharoe Green Lane
Fulwood Preston
PR2 9HT

Telephone: **01772 522559**
Email: neurophysiology@lthtr.nhs.uk

## Sources of further information

www.lancsteachinghospitals.nhs.uk
www.nhs.uk
www.accessable.co.uk
www.patient.co.uk
www.lancsteachinghospitals.nhs.uk/veteran-aware
https://bepartofresearch.nihr.ac.uk/

**Follow us on social media @lancshospitals**

**Lancashire Teaching Hospitals NHS Foundation Trust is not responsible for the content of external internet sites.**

All our patient information leaflets are available on our website for patients to access and download:

www.lancsteachinghospitals.nhs.uk/patient-information-leaflets

Lancashire Teaching Hospitals is a smoke-free site. Smoking is not permitted anywhere on any of our premises, either inside or outside the buildings. Our staff will ask you about your smoking status when you come to hospital and will offer you support and advice about stopping smoking this will include Nicotine Replacement Therapy to help manage your symptoms of withdrawal and the opportunity to speak to a nurse or advisor from the specialist Tobacco and Alcohol Care Team.

If you want to stop smoking, you can also contact Smokefree Lancashire on Freephone **08081962638**

**Please ask a member of staff if you would like help in understanding this information.**
**This information can be made available in large print, audio, Braille and in other languages.**

Our patient information group review our leaflets regularly, if you feel you would like to feedback on this information or join our reading group please contact on email address:
patientexperienceandinvolvem@LTHTR.nhs.uk

**Department**: Neurophysiology
**Division**: Medicine
**Production date**: October 2026
**Review date**: October 2029
**JR 1534 v1**