



Manchester Royal Infirmary

Nerve Conduction Studies and Electromyography (NCS and EMG)

Neurophysiology Department 0161 276 4564



What Are NCS and EMG?

NCS stands for Nerve Conduction Study. This is a way of testing the function of the nerves in the arms and legs.

EMG stands for Electromyography. This is a way of testing the muscles and the nerve supply to them.

Why Do I Need NCS and EMG?

NCS and EMG tests are performed in a variety of circumstances. They are most commonly used to test patients who complain of pins and needles, tingling, numbness, pain or weakness in their arms or legs.

The NCS and EMG Test

Before NCS and EMG

No special preparation is needed before the test and you should take any medication as prescribed unless specifically told not to by your doctor.

However, it is helpful if you can come wearing loose clothing because we may need to test above your knee or above your elbow. It is also helpful if you can avoid using moisturising cream.

It is important that your hands and feet are warm to maximise the usefulness of the test. We will warm them when you arrive at the department.

If you have either a defibrillator or pacemaker fitted or if you take Warfarin medication then you must phone the department as soon as possible on 0161 276 4564 as we may need to organise special monitoring, or make some adjustments to the test.

During the NCS and EMG test

NCS and EMG tests are done in two parts. The NCS part is done first, and then based on the results the Consultant Neurophysiologist will decide whether you need EMG also. Most patients do not have EMG as the NCS provides sufficient information. If you do need EMG then it will be done during your appointment.

The NCS Test

The test will be performed by a Clinical Physiologist or a Consultant Neurophysiologist. It takes approximately 30-60 minutes.

At the start of the test you will be asked some questions about your medical history (mainly about your symptoms and medication) and the test will be explained fully. You will also have chance to ask any questions that you have.

For the test some small wires and stickers called electrodes will be applied to your hands and arms or feet and legs (depending on the area that is causing your symptoms and which is to be tested).

Small electrical pulses will be delivered through these electrodes to stimulate the nerves so that they can be examined.

You will be able to feel the pulses, but they are very low in strength, and most people do not find them too uncomfortable.

The pulses will be used to test different nerves in your body and in some cases will make your muscles twitch.

The EMG Test

The test will be performed by a Consultant Neurophysiologist. EMG involves placing a very fine needle electrode into different muscles in order to test how well they are functioning.

Though you will feel the needle, it is unlikely to cause you too much discomfort. Nothing will be injected into you and no blood will be taken.

During the test, several muscles will be tested and each one will take around two minutes.

After the tests

The tests do not have any side effects or after effects and you can go home and carry on as normal straight afterwards.

The EMG test may leave you with a small amount of bleeding or bruising, though this is rare and is usually only very slight.

Frequently Asked Questions

Will I get the results straight away?

No. You will not get any results on the day of your test. The information collected needs to be reviewed by the Consultant Neurophysiologist or Highly Specialist Clinical Physiologist and this takes some time. A report of the findings of the examination will be sent to the doctor who referred you. This doctor will then call you for a follow up appointment to discuss the results with you.

Will I feel anything?

You will feel the pulses used to stimulate the nerves during the NCS test, and the small needle used to record from the muscles in EMG. You may feel some slight discomfort; however it will only last for a few seconds, and on the whole, most people do not find the tests too uncomfortable.

What about if I am worried about the test?

If there are any parts of the test that you feel uncomfortable with then you should tell the Clinical Physiologist or doctor who can discuss any concerns with you.

Why do I have to come to Manchester Royal Infirmary for the test?

NCS and EMG testing is not available at all hospitals, therefore though you may have originally seen a doctor at another hospital you have been referred to Manchester Royal Infirmary for this test. The results will be sent back to the doctor that originally referred you.

Further Information About NCS and EMG

The department is open Monday to Friday between 8.00am and 5.00pm. If you require further information about NCS, EMG or neurophysiology then feel free to call us on **0161 276 4386** or **0161 276 4564**. Alternatively you could consult:

Hospital website: www.cmft.nhs.uk

NHS direct website: www.nhsdirect.nhs.uk

Contact Details

Neurophysiology Department

Manchester Royal Infirmary

Oxford Road

Manchester

M13 9WL

Tel: 0161 276 4564

Fax: 0161 276 6054

Getting to the Neurophysiology Department

The Neurophysiology Department is located on the Ground Floor in the Manchester Royal Infirmary.

The closest entrance to the department is MRI Entrance 2 located on the hospital Boulevard.

There are two multi-storey car parks at the hospital (Hathersage Road and Grafton Street). You should allow 10–15 minutes to get from the car parks to the Neurophysiology department.

Parking for patients who require access to Drop-off areas (30 minutes maximum) is also available. These areas are barrier controlled and accessed from the Hathersage Road entrance, which is signed "Access for Drop-off and Blue Badge Holders only".

If you require ambulance transport to the hospital then you should arrange this with your GP as soon as you know your appointment date.

Suggestions, Concerns and Complaints

If you would like to provide feedback you can:

- Ask to speak to the ward or department manager.
- Write to us: Patient Advice and Liaison Services, 1st Floor, Cobbett House, Manchester Royal Infirmary, Oxford Road, Manchester M13 9WL
- Log onto the NHS Choices website www.nhs.uk - click on 'Comments'.

If you would like to discuss a concern or make a complaint:

- Ask to speak to the ward or department manager – they may be able to help straight away.
- Contact our Patient Advice and Liaison Service (PALS) – Tel: 0161 276 8686 e-mail: pals@cmft.nhs.uk. Ask for our information leaflet.

We welcome your feedback so we can continue to improve our services.

Zero Tolerance Policy

We are committed to the well-being and safety of our patients and of our staff. Please treat other patients and staff with the courtesy and respect that you expect to receive. Verbal abuse, harassment and physical violence are unacceptable and will lead to prosecutions.

No Smoking Policy

Please protect our patients, visitors and staff by adhering to our no smoking policy. Smoking is not permitted in any of our hospital buildings or grounds, except in the dedicated smoking shelters in the grounds of our Central Manchester site.

For advice and support on how to give up smoking, go to <http://www.nhs.uk/smokefree>.

Translation and Interpretation Service

It is our policy that family, relatives or friends cannot interpret for patients. Should you require an interpreter ask a member of staff to arrange it for you.

تتص سیاستنا علی عدم السماح لافراد عائلة المرضى او اقرار بهم او اصدقائهم بالترجمة لهم. اذا احتجت الى مترجم فيرجى ان تطلب ذلك من احد العاملين ليرتب لك ذلك.

بماری یہ پالیسی ہے کہ خاندان ، رشتہ دار اور دوست مریضوں کے لئے ترجمہ نہیں کرسکتے۔ اگر آپ کو مترجم کی ضرورت ہے تو عملے کے کسی رکن سے کہیں کہ وہ آپ کے لئے اس کا بندوبست کر دے۔

ইহা আমাদের নীতি যে, একজন রোগীর জন্য তার পরিবারের সদস্য, আত্মীয় বা কোন বন্ধু অনুবাদক হতে পারবেন না। আপনার একজন অনুবাদকের প্রয়োজন হলে তা একজন কর্মচারীকে জানান অনুবাদকের ব্যবস্থা করার জন্য।

Nasze zasady nie pozwalają na korzystanie z pomocy członków rodzin pacjentów, ich przyjaciół lub ich krewnych jako tłumaczy. Jeśli potrzebują Państwo tłumacza, prosimy o kontakt z członkiem personelu, który zorganizuje go dla Państwa.

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我们的方针是，家属，亲戚和朋友不能为病人做口译。如果您需要口译员，请叫员工给您安排。



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