

Electromyography (EMG) Test / Nerve conduction studies (NCS)

Information for parents and carers



leeds children's
hospital

caring about children

What are NCS/EMG Tests?

Electromyography (EMG) and Nerve conduction studies (NCS) tests are used to investigate muscle and nerve problems.

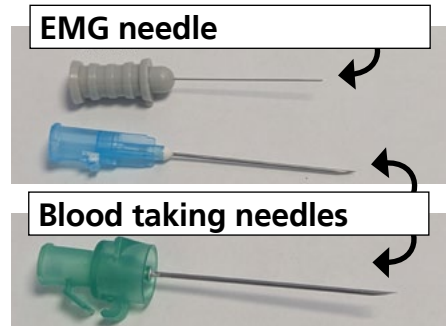
Our brain controls how our muscles work by sending an electrical signal down nerve cells. These tell our muscles to contract and relax. In some medical conditions the electrical activity does not work well.

EMG and NCS help in the diagnosis and management of your child's complaint or condition.

- EMG stands for "Electromyography" – it is used to record activity from muscles
- NCS stands for "Nerve conduction studies" – test for how electrical activity passes through nerves in your arms and legs.

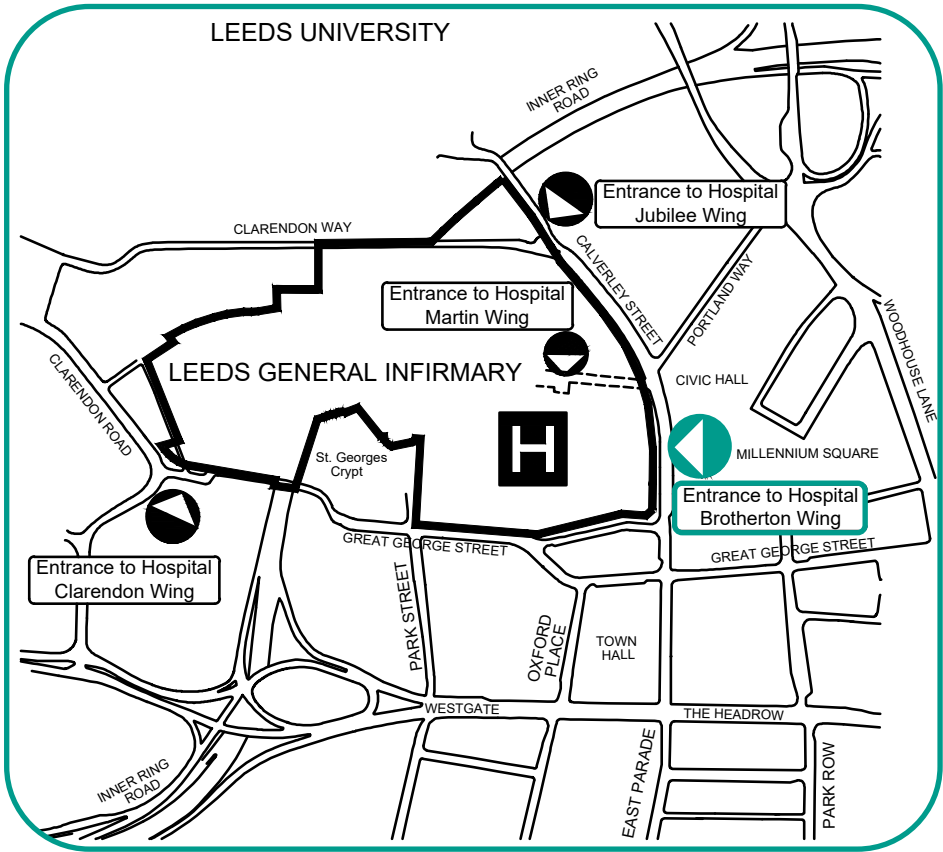
What will happen during the test?

- An EMG test uses sticky pads (electrodes) placed on the skin or a fine needle in the muscle. This then records the muscle activity. A sharp scratch is felt, but most children do not find this too uncomfortable. The needle is much smaller than a needle used for blood tests (see image). We can use distraction therapy to help and numbing cream if needed.
- A nerve conduction study uses small electrical pulses to stimulate the nerves. This may cause some mild tingling. Each electrical pulse is very quick.
- The test is carried out by a Consultant Neurophysiologist. This is a doctor who investigates and diagnosis conditions related to the nervous system. You can discuss the test with them before the procedure.



Where do I bring my child?

The neurophysiology department is located on A Floor
Brotherton Wing, Leeds General Infirmary



How long will the test take?

The test will take around 20 to 40 minutes.

You can stay with your child throughout the test. Please feel free to bring your child's favourite toy or book.

Is there anything I need to do to prepare my child?

- Your child should eat and drink as normal prior to the test
- Your child should continue to take their regular medications
- Please wear clothing that can be easily removed or rolled up
- Please do not apply cream or lotion after the last shower/bath prior to the appointment
- Please tell the doctor before the test if your child has:
 - A heart pacemaker
 - A vagal nerve stimulator
 - Is on blood thinning medication e.g. Warfarin/Heparin.

Are there any risks?

- There are no after effects. The muscle tested may feel sore for a short time afterwards.
- The needle may cause a small amount of bleeding and there may be a bruise.
- Your child can go back to school or nursery after the test.

Why does my child need this test?

If you are unsure why your child needs this test please contact the referring consultant.

When will we get the results?

- All results will be looked at by a neurophysiology consultant.
- A report should reach your consultant within 7-14 days.

For further information:

If you require more information or have any further questions you can contact the department on **0113 392 6855**.



What did you think of your care?

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