

## Patient information factsheet

# Nerve conduction study and electromyogram

A nerve conduction study measures how long it takes for a nerve impulse to travel along a nerve. If the nerve is trapped, damaged or diseased then these signals will be slow. An electromyogram (EMG) records the naturally-occurring electrical activity within your muscles.

You have been sent an appointment for the above test. This factsheet explains how to prepare and what to expect during the procedure. If you have any further questions please contact us using the details over the page.

### Please contact us immediately if you:

- have a cardiac pacemaker or implanted defibrillator
- take anticoagulant medication (blood thinners such as warfarin, dabigatran, apixaban or rivaroxaban) - as it may not be advisable for you to have the test.

### Attending your test

Please ensure you arrive on time. Allow at least one hour for the test, although in most cases it takes no longer than 30-45 minutes. If you arrive late it may be necessary to rebook your appointment.

If you would like to bring a friend or family member to accompany you please do. If you would like a chaperone to be present during the test, please inform the staff at reception when you arrive.

### On the day of your appointment:

- Keep your hands and feet warm, especially in cold weather. Nerves conduct messages more slowly when cooled so this could affect the results of your test.
- Wear loose, comfortable clothing.
- Do not wear jewellery on your arms/legs. Wedding rings can be left on.
- Do not use any cream or moisturising lotion on your skin as they can interfere with the recording.
- Remember to inform the doctor or physiologist if you are taking anticoagulant medication (blood thinners such as warfarin, apixaban, dabigatran or rivaroxaban).
- Please let us know if you have a cardiac pacemaker or implanted defibrillator.

### During the test

To obtain measurements of your nerve impulses, a recording electrode will be placed on your skin, usually on your upper and/or lower limbs. Another electrode will be used to stimulate the

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nerve. The stimulator produces small electrical pulses that feel like a sharp, tapping sensation.

The process will be repeated for a number of different nerves. Although the test can be uncomfortable and some people experience a slight increase in their usual symptoms for a few minutes afterwards, the test will not cause you any harm.

Following a nerve conduction study an EMG test may also need to be performed.

If an EMG is required, a fine needle will be inserted into the muscle to view and listen to the electrical activity. You may be asked to move in a certain way in order to contract the muscle. The small size of the needle means it should not be too uncomfortable.

You may experience some minor bruising and soreness for a short time after the test. In rare cases, bleeding into the muscle might occur. Please ask a member of staff if you would like more information about this or any aspect of the test.

## After the test

The specialist physiologist or doctor performing your test will not be able to give you a result immediately. The results need to be analysed and a full medical report sent to the doctor who referred you for the test.

## Further information

Please feel free to contact the department if there is any information you do not understand. If your appointment is not convenient please phone as soon as possible to rearrange it.

## Clinical neurophysiology department

Telephone: **023 8120 6785** (between 8am and 4.30pm, or please leave a message on the answer machine).

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If you need a translation of this document, an interpreter or a version in large print, Braille or on audio tape, please telephone **023 8120 4688** for help.