Nerve Conduction Study

What is a Nerve Conduction Study?

A Nerve Conduction Study (NCS) measures how electrical signals travel through a nerve. As a result, this test can help identify the presence, location and extent of conditions that affect nerves. A NCS may also assist in finding the cause of symptoms such as numbness, tingling and persistent pain, especially that experienced in the hands, arms, legs and feet.

How to Prepare for a Nerve Conduction Study

- Ensure that you wear loose fitting clothing so that the neuroscientist can easily access the area/s being tested to apply the electrodes to your skin.
- Avoid applying moisturiser to the area/s of the body being tested, as this can make it difficult to attach the electrodes and may affect the efficacy of the test.
- If nerves in your legs or feet are being tested, do not wear stockings or tight leggings/pants.

What to Expect in a Nerve Conduction Study

- The neuroscientist will attach some electrodes to the skin over your nerve, before using a stimulator to send short and mild electrical pulses to stimulate the nerve.
- Whilst not painful, these pulses may feel uncomfortable.
- The nerve responses are recorded as part of the test.
- A NCS will take approximately 30 minutes to perform.
- It is a safe and non-invasive test.

What happens after the Nerve Induction Study?

- The results of the NCS are viewed and reported by the neurologist.
- In your follow up consultation with the neurologist, your results will be discussed and any further investigations that are required will be organised.
- A copy of the report will also be forwarded to your referring doctor.

Note: the following additional test is only performed when necessary.

Electromyography (EMG)

When required, EMG is performed in addition to the NCS, by a neurologist. More specifically, this test measures electrical activity in your muscles. The neurologist will use a needle electrode that will be inserted into the muscles studied. As a result, this test can help identify the presence, location and extent of conditions that affect muscle function.