

What Is a Nerve Conduction Study or EMG?

A nerve conduction study is a test that records how fast electrical signals travel along the nerves in the arms and/or legs. An EMG (electromyogram) is a test that records the electrical activity produced by the muscles.

How Can I Help My Child Prepare for the Test?

Do not let your child eat solid foods in the two hours before your appointment time. Clear fluids like water or apple juice are okay.

Dress your child in a short-sleeved top or a top with sleeves that can easily be pushed up past the elbow. Likewise, dress him/her in shorts or pants that can easily be pushed up past the knee.

Plan to get to the hospital at least 20 minutes before your appointment time. It can be hard to find parking. Please come directly to the EEG Department in Room 1B10.

If you did not receive a call from the hospital's Admitting Department to register your child in advance, you will need to do this when you arrive at the hospital. After you arrive at the EEG department, we will decide when it is best for you to return to Admitting.

Will My Child Be Sedated for the Test?

In order to get the best results, it is important for your child to be very still and relaxed for this test. We can get the very best results when your child is asleep or very, very drowsy. We recommend that all children be given a mild sedative one hour prior to the time of testing.



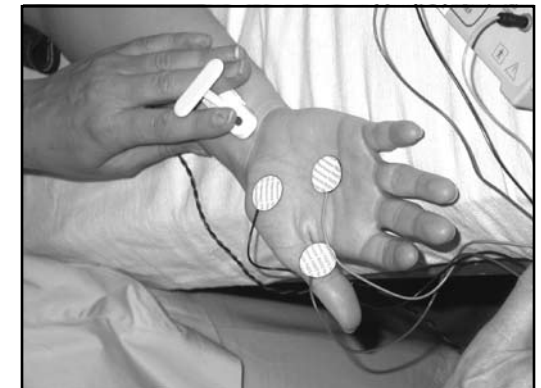
Chloral Hydrate is one of the safest sedating medications available for infants and children. Our nurse will ask questions about your child's health to make sure that there are no potential problems with your child being sedated.

If sedation has been ordered for your child, you or a legal guardian must accompany your child to the test. If this is not possible please contact the EEG Department at 604-875-2124 to reschedule.

What Will Happen at the Test?

Both a technologist and our EMG physician will be with your child during the testing. In most cases, we ask that parents wait outside while the testing is done. We will call you if there are any problems. It takes about 30 to 45 minutes to complete both tests.

- **Nerve Conduction Study:** To measure the electrical signals traveling along a nerve, we will apply three small sticky pads on your child's arm/hand or leg/foot to pick up the signal. The electrical signal is delivered to the nerve either by two rings that are placed on the finger or by two small wet felt pads that are placed on the arm or the leg. When the electrical signal is sent to the nerve, your child will feel either a slight tingling sensation or a twitch of the fingers or toes.



• **EMG:** The doctor will decide whether or not an EMG study is needed based on the results from the nerve conduction study. To record the electrical signals from the muscles, a very thin acupuncture-like needle is inserted into the muscle. The doctor will then tell your child to move the muscle in a certain way. This portion of the testing does not take long but there is some minor discomfort from the needle insertion. Your child will tolerate this better with sedation.

When Will I Know the Results of the Test?

Neither the technologist nor the EMG physician can give you the results of the test. The information needs to be analyzed in detail by the EMG physician who will then send the results to your doctor.

Results will reach your child's doctor in about two weeks' time.

**Contact the EEG Department:
Area 1B10
604-875-2124.**

*Developed by the health care professionals
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Nerve Conduction Studies/ Electromyography (NCS/EMG)



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