



Electroencephalogram (EEG)

What is Electroencephalogram?

- An Electroencephalogram also known as an EEG is a test that measures electrical activity in the brain. The electrical activity is also called "brain waves".

Why is it necessary?

- The EEG looks at brain wave activity to assist in diagnosis and medical management of a variety of neurologic problems.
- Electrical activity in the brain can be different when a person is awake compared to when a person is and asleep, therefore, it is very important that your child be sleepy when you arrive for the EEG.
- To optimize that the child will fall asleep during the EEG, we will ask you to "sleep deprive" your child the night before the test.

What is "sleep deprivation"?

- "Sleep deprivation" is when a person does not get their regular amount of sleep.
- If sleep is not attained during the EEG, we will not have a complete study and you may need to reschedule another EEG.

How much sleep can my child get before the EEG?

- An infant or toddler: If possible, the appointment will be made around the child's naptime.
- One to 6 years old: Your child should receive HALF his or her regular amount of sleep. Your child should be up by 5 a.m.
- 7 years and older: Your child should have no more than 4 hours sleep the night before the test.
- **All ages: DO NOT allow your child to nap, fall asleep after awakening or while riding in the car to the appointment.**

How do I get ready?

- Wash your child's hair the night before. Do not put any oil, gel, or hairspray in his or her hair. This can affect the test.
- Your child should take all regular medications and eat meals as usual prior to the test.
- On the day of the EEG, your child should NOT have any drinks or food containing caffeine such as soda, coffee, tea, or chocolate.
- Your child may bring any comfort items such as blankets, bottle, or pacifier.
- Tell your child that you will stay with him or her for the entire test.

What happens during the EEG?

- A specially trained pediatric EEG technologist will perform the EEG test and explain each step to you and your child.
- Your child will be asked to lie down on a stretcher or bed.
- Your child's head will be measured with a measuring tape and the technologist will mark locations with a washable pencil.
- Small circular shaped electrodes are placed on your child's scalp using removable glue. The electrodes are connected to the EEG machine that records brain waves and has a video camera.
- The lights in the room will be turned off during part of the test to encourage sleep.
- A flashing light will be placed in front of the child during part of the test.
- The child may also be asked to take deep breaths for 3 minutes.
- The entire preparation and test will take between 1 ½ to 2 hours.

What happens after the EEG?

- The electrodes are removed from your child's scalp and the glue will be washed off with warm water and shampoo. All the glue may not come out at first, so it may

Family Education Sheet • *Electroencephalogram (EEG)*

be necessary to rewash the child's hair at home.

- A neurologist will read the EEG and provide a report to your child's doctor.

How will we be informed of the result?

- A written report will be prepared and sent to your child's doctor who ordered the EEG within two weeks. Please contact him/her for the results.

Where do I call to get more information?

- Please contact the Division of Epilepsy and Clinical Neurophysiology if you have any questions regarding the EEG testing or need to reschedule.
- The phone number is (617) 355-2842.
- Please allow enough time for parking to arrive on time for your appointment to avoid the possible need to reschedule.

A [*Spanish*](#) version of this education sheet is available from your provider