

Electroencephalogram (EEG)

An electroencephalogram (EEG) is a safe and painless test that measures electrical activity in the brain. The test uses small, metal discs called electrodes that stick to the scalp. Brain cells talk to the body using electrical impulses. These impulses show up as wavy lines on an EEG recording. Brain cells are active all the time, even during sleep. An EEG can help diagnose many conditions, including epilepsy and sleep and movement disorders.

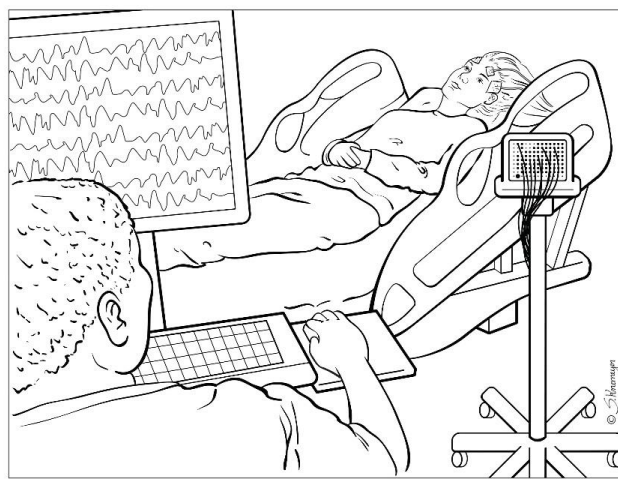
Please wake your child at _____ a.m. and keep them awake until the EEG begins.

How to Get Ready for the Test

- Explain to your child what will happen during the EEG. The person doing the test (technologist) will also do this.
- You can stay with your child during the test.
- Your child **cannot** have caffeine or high-sugar foods on the day of the test. This includes coffee, tea, soda, and chocolate. These can keep them from relaxing.
- Make sure that your child's hair is washed, dry, and neat on the day of the test. Do not apply any hair products to your child's hair the day of the test. Do not put the hair in braids or a weave.
- Give your child their prescribed medicine, as normal, unless their doctor or health care provider tells you differently.
- Do not let your child sleep on the way to the test. They need to be able to sleep for about 10 to 15 minutes for the test.
- Bring things that your child likes to sleep with, like a favorite stuffed animal or blanket.

How the EEG Is Done

- The test takes 1½ to 2 hours, including hookup time and recording.
- A recording will be made of your child's brain waves. It is best if this is done with your child both awake and asleep.
- Your child will **not** be given medicine for sleep (anesthesia). They must lie still and relax on their own. The technologist may use different tools to help them stay still, including a papoose board.
- Your child will have small, round discs (electrodes) placed on their head. The discs are held in place with glue so they don't fall off. Each electrode will have a wire that attaches to a computer (Picture 1). This is how brain waves are recorded.
- If able, your child will be asked to look at flashing lights (photic stimulation) or breathe very fast (hyperventilation).
- When the test is done, electrodes will be removed. Your child's skin may be pink where the electrodes were.
- Your child can shampoo and condition their hair when they get home.



Picture 1 Getting an EEG test.

Results

- A brain doctor (neurologist) will send the EEG results to the doctor or health care provider who asked for the test. That doctor will discuss the results with you.
- If you have any questions, ask your child's doctor or health care provider or call Nationwide Children's Hospital Neurodiagnostic Services at (614) 722-8805.