

ELECTROENCEPHALOGRAM (EEG) AND VIDEO EEG

AT CHILDREN'S HOSPITAL OF PITTSBURGH OF UPMC, we believe parents and guardians can contribute to the success of these tests and invite you to participate. Please read the following information to learn about these tests and how you can help.

Fast Facts About EEG

- The EEG measures the electrical activity in the brain called brain waves.
- Your child should not drink anything with caffeine in it on the day of the test.
- Small button-shaped stickers called electrodes will be placed on your child's scalp to measure the brain activity.
- All testing takes place on the outside of your child's body and will not hurt.
- An EEG takes about 1 hour to complete.

Fast Facts About Video EEG

- During the video EEG, your child will be videotaped while the EEG is done.
- Like an EEG, this test does not hurt.
- This test is usually done at the hospital.
- This test takes from 6 hours to several days, depending on the information that is needed.

What Is An Electroencephalogram (EEG)?

An electroencephalogram (*ee-leck-tro-en-SEFF-a-lo-gram*) or EEG uses small button-shaped electrodes on the outside of the scalp to record the brain's electrical activity or brain waves. These brain waves are the way brain cells talk to one another and get information from the brain to the rest of the body. An EEG gives doctors a record of that activity by recording it onto a computer or printing it out on a piece of paper.

An EEG helps doctors understand what is happening inside the brain. It can help doctors:

- Tell if a child's level of alertness or consciousness is normal.
- Point out something that is not normal in one part of the brain.
- See if a child has a tendency to have seizures or convulsions.
- See if a child may have a certain kind of epilepsy.

Sometimes a child who has been having seizures may have a normal EEG. That is because the problem causing the seizures may come and go. When that is the case, the doctor may want to do another EEG, a longer EEG or a video EEG.



What Is A Video EEG?

A video EEG videotapes your child while the regular EEG is being done. The video recording is done over a longer period of time than a regular EEG.

- A video EEG can take from 6 hours to several days, depending on the information that is needed.
- The video EEG is usually done in the hospital, where it is safe to allow your child to have some seizures. It lets doctors record the seizures with the EEG to see how your child behaves when those seizures happen.

Home Preparation

Before your child's EEG or video EEG:

- Wash your child's hair the night before the test, but do not use any oil, gel or hairspray. Please do not braid or pull up long hair, and do not use any hair extensions.
- If you were given special instructions about waking your child up early or changing his or her sleep schedule on the day of the EEG, please follow these instructions. Some EEGs need to be done when a child is sleep-deprived to get the right information.
- Give your child his or her medications as usual, unless your doctor tells you otherwise.
- On the day of the test, dress your child in clothing that does not slip on and off over the head. Shirts that zip or button up the front or back are preferred.

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- Bring a list of all the medications your child takes, including how often your child takes each medication and how much your child takes with each dose.
- Your child's doctor will give you specific instructions about when your child can eat before and after the test.
- Your child should not have any drinks that have caffeine in them on the day of the test. These drinks include soda or pop with caffeine, coffee and tea.
- You may bring along a "comfort" item—such as a stuffed animal or "blankie"—for your child to hold during the test.

The Test

An EEG is simple and painless. Here is what to expect:

- Your child will be asked to lie down on a bed.
- An EEG technician will be in the room and will explain the test to you and your child.
- The technician will measure your child's head and make small marks on the scalp with a washable marker or pen.
- Each marked area will be rubbed gently with a gritty lotion that helps the electrodes work better.
- A mild glue that can be removed later will be put on the electrodes and the electrodes will be placed on each of the marks made on your child's scalp.
- The electrodes will then be connected to the EEG machine and the test will begin.
- During the test, your child should lie as still as possible.
- At times, your child may be asked to breathe fast, to look at flashing lights and to try to sleep.

A video EEG is done much the same way, but it takes longer and your child is videotaped for a long period of time.

- A video EEG is often done at the hospital.
- Your child will be asked to sit in a chair or lie on a bed.

A Parent's/Guardian's Role During the Test

We welcome your help and support during this test. One parent or guardian is invited to stay with your child in the room during the EEG. Other adults and children must stay in the waiting area.

- The most important role of a parent or guardian during the EEG is to help your child stay calm and relaxed.
- The best way to help your child stay calm is for you to stay calm.
- We encourage you to talk to your child for reassurance during the EEG.
- Video EEGs can be boring for children, so you may want to bring books to read, toys or quiet games to play, or a favorite DVD for your child to watch. These things will help the time go by faster.

After the Test

Once the test is over:

- The electrodes will be removed from your child's scalp and the glue will be washed off with warm water and a washcloth. If all of the glue doesn't come off at first, you may need to wash your child's hair at home.
- The technician or a nurse will give you further instructions and tell you when you and your child may leave.
- A pediatric neurology doctor will look at and interpret the EEG, and a report of your child's EEG will be sent to the doctor who ordered it. If the results are urgent, the referring doctor will be contacted immediately.
- Please contact the doctor who ordered the test for the results.

Special Needs

If your child has any special needs or health issues you feel the doctor or technician performing the test needs to know about, please call the Division of Neurology at Children's Hospital of Pittsburgh **before** the test and ask to speak with a nurse. It is important to notify us **in advance** about any special needs.

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EEG Scheduling 412-692-6163
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(for prolonged Video EEGs only)



To see the list of all available patient procedures descriptions, please visit www.chp.edu/procedures.