

Let's Talk About...

EEG (Electroencephalogram)

An electroencephalogram (eh-leck-tro-en-SEF-uh-low-gram), or EEG, is a recording of the brain's electrical activity (brainwaves). Many children with seizures or epilepsy have different brainwave patterns. A doctor can look at the EEG and get information about how the brain is working. This can help diagnose your child's health problem or help the doctor choose the best treatment.

How does an EEG work?

The EEG technician will put small metal tabs (electrodes) on your child's head. These do not hurt and do not give a shock, but just sit on the skin. These electrodes sense the brain's electrical messages. The EEG machine then records these electrical messages as little squiggly lines on a computer screen and stores the information so a doctor can look at it later.

Who does the EEG?

An EEG technician will perform your child's EEG. A neurologist will look at the EEG and tell your child's primary healthcare provider what the EEG shows.

How do I prepare my child for the EEG?

- Give your child all of their prescribed medicines, unless the doctor tells you to not to.
- Shampoo your child's hair the night before the EEG. Do not use conditioners or other hair products.
- Do not give your child any sugary foods or caffeine the day of the test.
- Have your child sleep less than normal the night before the test so they can fall asleep for part of the EEG. However, keep your child awake on the way to the test and in the waiting room.

How can I help my child be sleepy for the EEG test?

Infants	Toddlers	Younger children (5-9 years old)	Older children (10 years old and older)
<ul style="list-style-type: none"> • The EEG lab will try to schedule your baby's EEG during a naptime or time you think they will sleep. • Please bring a diaper, bottle, pacifier, familiar blanket, pillow, or anything that may help your child relax to sleep. • Try to keep them awake for at least 1-2 hours before the test. 	<ul style="list-style-type: none"> • The EEG lab will try to schedule your child's EEG during a naptime. • If your child has a familiar stuffed animal, toy, or blanket, bring it to the EEG test. • Keep your child awake 2 hours past their usual bedtime the night before, and wake them up 2 hours earlier than normal. • Try to keep your child awake before the EEG. 	<ul style="list-style-type: none"> • Keep your child up well past bedtime the night before the EEG. • Make sure they have no more than 6 hours of sleep before 4 AM. • Wake your child up at 4 AM. • Try to keep them awake and active until the EEG. 	<ul style="list-style-type: none"> • Keep your child up well past bedtime the night before, and wake them by 4 AM. • Keep your child awake and active until the EEG. • It is best if your child sleeps less than 5 hours the night before the EEG. • Try to keep them awake and active until the EEG.

How will the technician prepare my child for the EEG?

The EEG technician will put about 23 small electrodes on your child's head. This most often takes 15–30 minutes.

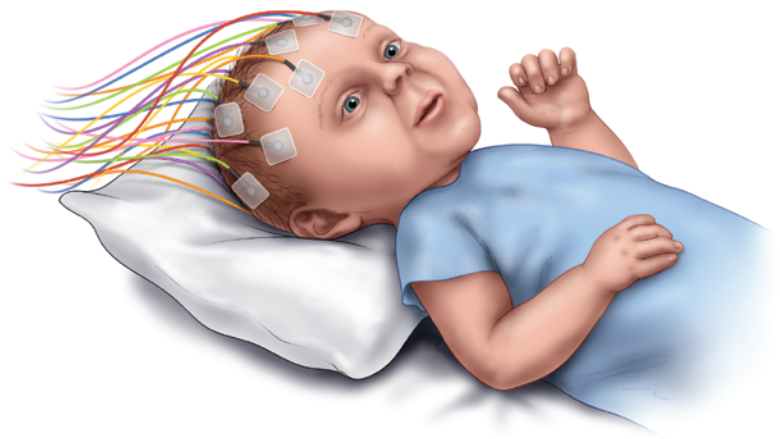
- 1 The technician will clean the places on your child's head where the electrodes will be with cotton-tipped swabs and special cream. This is so the electrodes can track the brain's electrical activity.
- 2 Next, the technician will put the electrodes on your child's head.
- 3 The technician begins by putting a little bit of conductive cream on each electrode. They part your child's hair and put the electrode on the scalp.
- 4 The technician then puts a small piece of tape on the electrode to hold it in place.
- 5 They will wrap your child's head with gauze to keep the electrodes in place during the EEG.

Note: Your child will need to stay still while the EEG technician puts the electrodes on their head. It does not hurt, but it frightens some small children. You and a child life specialist can play with and reassure your child while the technician puts the electrodes on their head.

Where does my child go for their EEG?

Your child may have routine outpatient or long term inpatient EEGs. The outpatient EEGs will take 1–2 hours. However, the long term and some hospital EEGs may take hours or several days. In either case, the procedure is similar.

- **Routine outpatient EEGs:** Go to the Eccles Outpatient Services Building, Level 3, Station 6, at your child's EEG appointment time if you preregistered. If no one called you to preregister, arrive about 20 minutes before your child's EEG appointment time.



- **Long-term inpatient monitoring EEGs:** Go to Inpatient Admitting at the main hospital entrance (north end of the hospital) 30 minutes before your child's appointment. If you can't keep your child's appointment or have any questions, call the EEG department at 801.662.1606.

Note: If there is an emergency EEG, the technician must take care of it first. Appointments are sometimes delayed or must be rescheduled when emergencies happen. The EEG staff will tell you if there is a delay and reschedule your child's EEG at your convenience.

What happens during the routine EEG?

The routine EEG takes about 1–2 hours and your child can fall asleep during part of it. The technician will put a flashing light few inches away from your child's head, and it will flash faster and slower. They may ask your child to do some simple tasks during part of the EEG, like:

- Open and close their eyes
- Repeat simple words
- Breathe quickly and deeply for 3–4 minutes (usually by blowing on a pinwheel)

The EEG measures small electrical signals from the brain and does not hurt. It does not send electric shocks or other electricity to your child's body, and there are no risks. However, there is a chance your child will have a seizure during the EEG. If this happens, it will show on the EEG and help the

