What is an EEG?

An EEG, which stands for electroencephalogram, is a test to see how your brain is sending messages to your body. Before this test, an EEG technologist, or tech for short, will meet with you and your family. It is the EEG tech’s job to place small colorful wires (sometimes called leads) on your head. This is the first part of the test.

Here is a picture of the wires. The round part at the end of the wire is sometimes called a “button.” For the rest of the EEG test, a computer will look at how your brain works when the wires are hooked up. This part may last only 20 minutes; or may take place overnight or for several days. If you are having a test overnight or for a few days, you can still play and do activities while the test is happening.

Sometimes kids get video EEGs. This type of EEG uses a camera to record a video of what your body might be doing when you have a seizure, especially overnight or while you are sleeping.

What will I feel, hear, and smell during my EEG wire placement?

**Nu prep:** Nu prep is a green gel that helps clean your skin. It feels like lotion with sand in it. The tech will use a q-tip dipped in Nu Prep to wash small areas on your head where the wires will go.

**Paste:** EEG paste looks like really thick frosting and is used to keep the wire on your head. The tech will put paste on the button at the end of the wire and gently press it on your head.
**Gauze and glue:** The tech will put some glue on a small square of soft material (called gauze) that goes on top of the button. Some kids say this glue smells stinky. It’s ok to plug your nose or cover your nose with a blanket.

![Gauze and glue](image)

**Air hose:** The air hose is used to help dry the glue on the small square of gauze. The air hose is a piece of metal, smaller than a pencil. It is not sharp and does not poke. Sometimes kids think the air hose sounds like a blow dryer. Before the tech uses the air hose, you can ask to feel the air and hear what it sounds like.

![Air hose](image)

**Gauze head wrap:** After all the wires are in place, the tech will wrap your head with a soft gauze. Sometimes we call this a hat. We use the gauze hat to make sure all of the wires stay on. If you want, you can even decorate your hat with stickers.

![Gauze head wrap](image)

The wires from your head will be plugged into a box that is connected to the computer. This box will be placed in a “backpack” that you will have to carry with you when you move around in the room.

**What can you do during EEG wire placement?**

Your most important job is to sit as still as you can so that the EEG tech can put the wires in the right place. While the tech is putting on the wires, you can play with toys or watch a movie. Sometimes it is hard to hold still on your own, so there might be another staff person that helps remind you to hold still. You might also be able to sit on a caregivers lap for comfort (ask your tech(s)).

After all of the wires are placed and you have your gauze hat on, the tech might ask you to look at a flashing light or take deep breaths. Now you can play and do activities in your room, just make sure you take your “backpack” with you wherever you go.
For Caregivers

**What to expect:** Although EEGs do not hurt and there is no poking involved (a common worry for children) some children can find EEGs to unpleasant. They may struggle with holding still, having someone touching/rubbing their head, or with all of the sensory experiences (glue smell, sound of air hose, etc). Below are some techniques that may help make the process a little easier for your child.

- **Comfort positions** are ways to hold your child during a procedure that help your child feel cared for and safe while the EEG leads are being placed. Ask the medical staff for help in using comfort positioning with your child.

- **Distraction** from a Child Life Specialist or caregiver can also be helpful in supporting your child during an EEG. Keeping their attention focused on something else such as toys, books, or comfort items from home may make the process easier.

- **Practice at Home** before you come to the hospital for your child’s EEG, it can be helpful to talk to about the test and practice doing an EEG at home. See the activity below to practice some of the steps for an EEG before you and your child come to the hospital.

Gather the following supplies: doll or stuffed animal, round band-aids, yarn (12 inch pieces), q-tips, lotion, and roll of gauze or cloth. Dip a q-tip in lotion and rub a small amount on different areas of the doll’s head. Attach a piece of yarn to a round band-aid (this will be the EEG wire) and stick the band-aid on one of the areas of the doll’s head that was prepared with lotion. Use a hair dryer to “dry” the glue for the pretend wire. Continue placing the wires until your child decides there are enough (At AFCH, a typical EEG uses 23-26 wires). Band-aids can be stuck on the doll’s head, and forehead. After all of the wires are placed, wrap the doll’s head with the gauze or cloth.

Throughout this activity, it is helpful to remind the doll to “sit still” as this will be your child’s main job when the wires are being placed. If you wish to take this a step further, you may have the doll look at a flashing light or tell the doll to take deep breaths for a few minutes.

Some children may also want to practice on themselves at home. You could try the above techniques on your child as well (**minus the band-aids-do not stick band-aids in hair**) to get them used to the feeling of someone touching and rubbing their head, and the sound of the blower. This practice may give you a good idea if your child will need some extra support or distraction for the EEG lead placement.

For additional information or support for your child’s EEG, contact Child Life at (608) 890-7888. You can also ask medical staff to page a Child Life Specialist (if available).