

Ambulatory EEG

What is an ambulatory EEG?

An ambulatory EEG (electroencephalogram) measures electrical waves in the brain for a longer time.

- Brain wave patterns change often.
- Brain wave patterns are different when asleep or awake.
- A routine EEG provides only 30 to 40 minutes of brain wave activity.
- Ambulatory EEG measures brain waves when your child is awake and asleep.
- This may be for 24, 48, or 72 hours depending on doctor's orders.

How do we do the ambulatory EEG?

The visit takes about 2 hours. You will meet our EEG tech. We will tell you:

1. How the ambulatory EEG works.
2. What you need to do at home.
3. Why this is important.

We place 25 flat metal discs (electrodes) on your child's head using special glue. This holds each one firmly in place.

We connect the electrodes to a small EEG recording device. Then, we place the EEG recording device in a bag that your child can wear as a backpack or messenger bag.



EEG and bag

The EEG tech will then do a 30-minute baseline study to make sure everything is working.

Event marker and event log

Event marker:

Push this when a symptom or event happens.

This makes it possible for the doctor to compare the event with the brain wave patterns and look for any changes.

Event log:

This is a diary of your child's different activities during the day:

- Meal times
- Sleep times
- Staring
- Feeling confused

We will tell you what activities to record.

When an event happens, you must:

1. Push the event marker.
2. Fill out the event log with the date, time and a brief description of the event.

Your child at home and school

It is important to continue your child's usual daily activities such as school.

If your child is going to school during the ambulatory EEG, you can:

- Share this handout with your child's teacher and school nurse.
- Pack the supplies your child will need for the school day. Include a phone number the teacher or school nurse can call with questions.

A child life specialist is available to talk to your child's classmates at school. This helps your child's friends understand the ambulatory EEG study. To schedule this visit, please call 682-885-7763.



The EEG device cannot get wet, bent, pulled or unplugged.

Your child cannot:

- Take a shower (only sponge bath)
- Swim
- Play in contact sports or other active playground activities
- Chew gum or eat chewy candy such as gummy bears.

Loose electrodes and bedtime

Please do not let your child scratch their head or remove the electrodes.

- Fix loose electrodes with tape. Only use the special tape we give you.
- We will give you gauze to wrap your child's head before they go to bed.

Checking EEG device

The yellow light should be flashing.

- Check the yellow flashing light on the recording device at least every hour.
- If the yellow light is not flashing, call Cook Children's Epilepsy Monitoring Unit (EMU) at 682-885-5726.

Change the batteries every afternoon at 4:00 p.m. We will give you batteries to use.



EEG battery

Questions or problems during the ambulatory EEG

If you have concerns about your child's medical condition, call your child's doctor.

If you have a question about the electrodes or recording device day or night call:

Cook Children's EMU
(Epilepsy Monitoring Unit)
682-885-5726

Ending the ambulatory EEG

We will tell you when to return to the neurology department. Bring back all equipment and the event activity log.

Location: _____

Date: _____

Time: _____

- The EEG tech first uses a special liquid to remove the electrodes. We then wash your child's hair with shampoo.
- Do not let your child touch their hair until it is clean and dry. The shampoo can sting their eyes.
- Some of the glue or liquid remover may still be in the hair. You may need to re-wash your child's hair at home.

Ambulatory EEG results

We download all the data from the ambulatory EEG device. Your doctor can then review this data and compare it with the times and event descriptions from your Event Log. The report takes about 5 days.

You can call your clinic nurse for results on:

Neurology

For contacts or locations visit:

[cookchildrens.org/services/neurosciences/contact-us/](https://www.cookchildrens.org/services/neurosciences/contact-us/)



These instructions are only general guidelines. Your healthcare provider may give you special instructions. If you have questions or concerns, please call your healthcare provider.