

# Ambulatory EEG Monitoring

## What to Expect from EEG Monitoring at Home

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### What is ambulatory EEG monitoring?

Ambulatory EEG (electroencephalogram) monitoring is a test that measures and records electrical activity in the brain for up to 48 hours while your child is at home or school. This test uses a special recording unit that is slightly larger than a smart phone. It allows your child to go about their normal routine while the EEG is being recorded.

### Why is an ambulatory EEG needed?

An ambulatory EEG helps the doctors determine if your child is having abnormal activity in the brain at different times of the day and night. This includes while your child is doing normal daily activities such as eating, playing and sleeping. This is important because electrical activity in the brain can be different when a person does different activities.

### How is the test done?



- A specially trained EEG technologist will apply the electrodes and the EEG equipment, which will take about 90 minutes from start to finish.
- Your child will be asked to lie down on a stretcher or bed.
- The EEG technologist will measure your child's head with a measuring tape. They will mark 30 locations on your child's head with a washable, pencil.
- Your child's hair does not need to be cut or shaved. It should be clean and free of hair product. The EEG technologist will rub a sandy cleanser on the places where the electrodes will attach before putting them on.
- Small circular shaped electrodes will be placed on your child's scalp using glue.
- Your child's head and body need to be completely still when we put on the electrodes.
- If your child is 4 years old or younger you may be asked to hold your child's cheeks to keep their head still. If your child moves too much, their arms may be wrapped snugly so that it can go as quickly and easily as possible.
- If your child is 5 years or older and is not able to tolerate the electrode placement, your neurologist will talk with you about other options.
- The electrodes are connected to a small EEG computer machine that is carried in a small backpack.
- Your child's head will be wrapped in gauze and a soft stocking cap to protect the electrode wires.

### To Learn More

- Neurodiagnostic Services  
206-987-2081
- Ask your child's healthcare provider
- [seattlechildrens.org/EEG](http://seattlechildrens.org/EEG)

### Free Interpreter Services

- In the hospital, ask your nurse.
- From outside the hospital, call the toll-free Family Interpreting Line, 1-866-583-1527. Tell the interpreter the name or extension you need.

### How do I prepare my child?

Before the appointment, please:

- Have your child's hair clean and dry. Please avoid styling products, oils and braids. These make it difficult for electrodes to stick in place. Using these products before the test may mean that we have to delay or reschedule the test.
- Give medicines as scheduled, unless your child's healthcare team gives you different directions.
- Your child does not need to change sleep patterns.
- Dress your child in clothing that buttons or zips down the front. Please do not have your child wear clothes that need to be pulled over their head. This is to prevent the EEG electrodes from being pulled off.
- Plan to be with your child, or make arrangements for an adult to be with them at all times while the EEG is on. This is important because you will be asked to record all episodes your child has on the Event Log.
- If your child is going to attend school, discuss the plan with the school teacher and nurse.
- Talk with your child about what to expect. Visit [seattlechildrens.org/EEG](http://seattlechildrens.org/EEG) for child-friendly booklets and information about the EEG hookup process.

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### What will happen the day of the ambulatory EEG hook up?

- On the day of your child's test, you will check in at the registration desk.
- After the electrodes are put on your child, the EEG technologist will review home care instructions and the date and time for the return appointment to have the equipment removed.
- You will be given instructions about how to keep the electrodes intact.
- You will be given instructions about how to push the event marker.
- You will be given instructions about how to complete the Event Log and the Episode Description Sheet. They will help the technologist and doctor who read and interpret the computer data to make an accurate report.

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### What do I need to do when we are at home?

#### Keep the electrodes and equipment intact

- Do not allow any of the equipment to get wet, bent, pulled or unplugged.
- Do not allow your child to shower, take a bath, swim or participate in any type of sports.
- Do not allow your child to chew gum. This may cause an error or "artifact" on the recording.
- Do not allow your child to remove the stocking cap.
- As much as possible, try to limit or prevent your child from scratching their head.

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#### Record your child's episodes

- Do stay with your child and complete the episode description sheet.
- Do push the event marker if they have an event.
- Do write the date, time and a description of the episode the log sheet.
- Do write additional times on the log sheet such as when your child is going to sleep, waking up, eating, playing etc.

### What do I do if an electrode falls off during the study?

- If an electrode falls off, write on the log sheet when it happened and let the technologist know when you return to the lab. This is not considered an emergency.

### Who do I call if I have questions while my child is having the test?

- If it is an emergency, call 911.
- For non-emergent issues or concerns about your child's medical condition, call the doctor who ordered your child's EEG test.
- For questions about the equipment, what to do while you are at home, or other concerns about the test, call us during business hours, Monday-Friday 7:30 a.m. to 4 p.m. at 206-987-2081. If problems arise outside of business hours, call us back when regular business hours resume.

### What happens when the test is over?

- On the day your child's test is over, you will return to EEG lab to have the electrodes and the computer removed.
- The technologist will remove the electrodes with a glue remover.
- You will be asked to give the EEG technologist the completed Event Log and the Episode Description Sheet.
- After the test, your child will need a bath or shower as soon as they get home. The glue remover will sting if it gets in their eyes. To avoid this, try to help your child avoid touching their hair until after it is washed.

### How do I remove left over glue from my child's hair?

- Saturate hair with coconut oil, olive oil, lotion or conditioner.
- Comb the oil, lotion or conditioner through your child's hair with fine-toothed comb.
- Wait 5 to 10 minutes.
- Wash your child's hair as usual.
- If there are still clumps of glue, rub the area with nail polish remover on a cotton ball. Wash your child's hair again if needed.

### When can we expect results of the EEG?

- You will not be able to get results on the day of the test. The EEG technologist cannot give you any specific information about the test results.
- The EEG is read by a clinical neurophysiologist who reviews the EEG recordings and the descriptions of the events that you wrote in the Event Log and the Episode Description Sheet.
- The clinical neurophysiologist will give significant findings from a first review of the study directly to your child's neurology provider prior to a final report. About 2 weeks after the test, a final written report will be sent to your child's neurology provider.
- When the results are ready, your child's neurology provider who ordered the test will explain them to you. Please call your child's neurology provider 10 to 14 days after the EEG test for results. You may be asked to make an additional appointment to see a neurologist in the Neurology Clinic following the results of your child's EEG test.