Ambulatory EEG Monitoring
What to Expect from EEG Monitoring at Home

What is ambulatory EEG monitoring?
Ambulatory EEG (electroencephalogram or ee-LEK-tro-en-SEFF-uh-loh-gram) 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 smartphone. Ambulatory means 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 see if your child is having abnormal activity in the brain at different times of the day and night. This includes while your child is eating, playing and sleeping. Electrical activity in the brain can be different when your child does different activities.

How is the test done?
- A specially trained EEG technologist (or EEG tech) will apply the electrodes and the EEG equipment, which will take at least an hour from start to finish.
- Your child will be asked to lie down on a stretcher or bed.
- The EEG tech will measure your child’s head. They will mark several locations on your child’s head with a crayon that washes out.
- For the EEG, we will place small, flat metal circles (electrodes) on your child’s head using a paste which needs to be applied on clean, dry and product-free hair. The EEG tech will part your child’s hair in order to reach the scalp for proper placement of electrodes. The tech will place the electrodes on your child’s scalp using glue that washes out.
- 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, we may wrap their arms snugly, so we can work quickly.
  - 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 that is carried in a small backpack.
- We will wrap your child’s head 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

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:

- Call to reschedule if you or your child have flu-like symptoms.
- Wash and dry your child’s hair the day before or day of the test. Avoid using any products in your child’s hair so that the electrode glue will stick well. An EEG tech will part your child’s hair in different ways in order to reach your child’s scalp for proper placement of electrodes.
- Give medicines as scheduled, unless your child’s healthcare team gives you different directions.
- Your child can take naps, go to sleep and wake up at their usual times.
- Dress your child in clothing that buttons or zips down the front. Your child should not wear clothes that need to be pulled over their head. This prevents the electrodes from being pulled off.
- Plan to be with your child, or ask another 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 teacher(s) and the school nurse.
- Talk with your child about what to expect. Visit seattlechildrens.org/EEG and click “+Helping your child prepare” for child-friendly booklets and information about the EEG hookup process.

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 we put the electrodes on your child, the EEG tech will review home care instructions and the date and time for the return appointment to have the equipment removed.

We will give you instructions about how to:

- Keep the electrodes intact.
- Push the event marker.
- Complete the Event Log and the Episode Description Sheet. These logs will help the EEG tech and doctor who read and interpret the computer data to make an accurate report.

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

**Keep the electrodes and equipment intact**

Help your child to avoid the following by telling them:

- Do not wet, bend, pull or unplug any of the equipment.
- Do not shower, take a bath, swim or play any sports.
- Do not chew gum. This may cause an error on the recording.
- Do not remove the stocking cap.
- Do not scratch their head, as much as possible.

**Record your child’s episodes**

- Stay with your child and complete the episode description sheet.
- Push the event marker if they have an event.
- Write the date, time and a description of the episode on the log sheet.
- Write additional times on the log sheet such as when your child is going to sleep, waking up, eating, playing, etc.
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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 EEG tech know when you return to the lab. This is not considered an emergency. EEG techs will not repair electrodes outside of scheduled appointments if they fall off.

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 you have problems outside of business hours, call us back during business hours.

What happens when the test is over?

• On the day your child’s test is over, you will return to the EEG lab to have the electrodes and the computer removed.
• The EEG tech will remove the electrodes using a glue remover.
• You will be asked to give the EEG tech 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 a fine-toothed comb.
• Wait 5 to 10 minutes.
• Wash your child’s hair as usual.
• If there are still clumps of glue, try washing their hair again. If that doesn’t work, put nail polish remover on a cotton ball and rub the area.

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 doctor (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 doctor will give findings of the study to your child’s neurology provider soon after and about 2 weeks later in a final report.
• When the results are ready, your child’s neurology provider 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 another appointment to see a neurologist in the Neurology Clinic.

Seattle Children’s offers interpreter services for Deaf, hard of hearing or non-English speaking patients, family members and legal representatives free of charge. Seattle Children’s will make this information available in alternate formats upon request. Call the Family Resource Center at 206-987-2201. This handout has been reviewed by clinical staff at Seattle Children’s. However, your child’s needs are unique. Before you act or rely upon this information, please talk with your child’s healthcare provider.
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