Surgery for Grid or Strip Placement

There are a lot of tests that your child’s healthcare team will need to do to make sure that epilepsy surgery is the right choice for your child. Grid or strip placement is a surgery that helps us to find out where your child’s seizures are coming from.

The grid or strips will help us find out where exactly in your child’s brain the seizures are coming from. This will tell your child’s healthcare team more about your child’s seizures and condition.

What will happen during surgery?

Small strips of electrodes (el-ECK-trodes) are placed on the surface of your child’s brain to monitor for seizures. Electrodes are small sensors that record brain activity. These electrodes will help us monitor seizures later on. These groups of electrodes make up the grids or to strips. We use grids to find out a smaller, more exact location in the brain where seizures are coming from. We use strips to find out where seizures are coming from by monitoring a larger area of the brain.

After surgery, your child will spend the first night in the PICU (Pediatric Intensive Care Unit) to make sure there are no complications from surgery. One of the most important things to prevent after surgery is infection. Infection is a danger in any kind of surgery. We take every step to keep your child safe from brain infection, including using restraints after surgery to make sure that they do not touch their head.

What will happen during monitoring?

If there are no problems, we will begin to monitor your child the first night in the PICU. On Day 2, they will be transferred to a different area of the hospital, called the Telemetry (tuh-LEM-uh-tree) Unit. This is on the first floor of the hospital. It is where we will do tests to check your child’s brain activity.

We will monitor your child using EEG and video, a test that records brain function. We will also take a video of them see how their body looks during a seizure. The EEG technologist (“tech”) will explain to you and your child how the EEG and video camera work.

It is required for you to stay with your child for the entire test. You are the expert on your child’s seizures, and you can help let your child’s healthcare team know about when seizures happen. Your child’s nurse will also tell you about how you can help with this important part of the test.
What can I expect while my child is in the hospital?

For the surgery and tests, your child will stay in the hospital for 7 or more nights. How long they need to stay depends on how often they have seizures.

One parent or caregiver is required to stay and sleep in your child’s room for the entire time that your child is in the PICU and in the Telemetry Unit. Again, this is because we will need your help to identify and keep track of your child’s seizures.

Children’s will provide a certified nursing assistant, or a CNA, as a one-on-one sitter to help assist you during your child’s stay. They will be there to help keep your child safe and make sure they do not touch their head. The sitter can also help with your child’s basic care needs.

Even though the sitter is there to help, you still need to be in your child’s room as much as possible. We need you to help identify seizures and to give care and comfort to your child. Our staff will make sure you get breaks, but it is important for you not to leave your child’s room for longer than 30 minutes for meal times. You can also leave for up to two 15-minute breaks in a 24-hour period.

During their hospital stay, your child will be on bed rest the whole time that the grid or strips are in place. This means that your child will need to do all of their daily tasks, like going to the bathroom, bathing and eating, while in bed. The sitter will be able to help with these tasks.

If your child has a grid placement, they will do other tests besides EEG and video monitoring. All children with a grid will have a test called motor mapping during their stay in the hospital. Some children may also have language mapping. We do these tests to find where movement and language control is located in your child’s brain. Children with strip placement will not have these tests.

How do I prepare my child for the test?

• Plan to arrive at the hospital the morning of the grid or strip placement. During your child’s pre-surgical appointment, please ask your child’s Neurosurgery nurse practitioner what time you should arrive.
• It is OK to bring pajamas for your child but they need to be snap or button up. Most patients wear hospital gowns while they stay in the hospital.
• Bring your child’s favorite toys or videos to the hospital. It is good to maintain your child’s daily routine as much as possible. All electronic items must be battery-operated. Charging your battery operated items is allowed, but only in special labeled plugs in the room.
• Cell phones and related devices must be on airplane mode for the entire length of stay. Check with your nurse if you have questions.
• Laptops are OK to use in your child’s room, but they must be battery-operated. All patient rooms have wireless internet.
• If your child needs any special equipment (like a wheelchair), please contact the EEG scheduling office at 206-987-2081 with any questions.
To Learn More
- EEG Scheduling 206-987-2081
- Neurology 206-987-2078
- Your child’s healthcare provider
- www.seattlechildrens.org

What else do I need to know?
- During the admission, a team of pediatric neurosurgeons, neurologists, nurses, EEG technologists and nurse practitioners will care for your child. They will make daily rounds to make sure that your child’s hospital stay is going well and to talk to you about any questions or concerns you have.
- We provide your child’s meals, but you and other family members will be responsible for your own meals. You can store your own food in the family lounge refrigerator on the unit.
- Other family members may visit during scheduled visiting hours. Only 2 family members may visit at a time. It is important that visitors do not come if they are sick. This might make your child more likely to get an infection.

Free Interpreter Services
- In the hospital, ask your child’s 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.

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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