

Video EEG

(Video Electroencephalogram Monitoring)

What is an EEG?

An EEG or electroencephalogram is a test that records brain waves, the pattern of electrical activity in your child's brain. Small electrodes (buttons with wires) will be placed on your child's scalp to pick up the electrical signals from the nerve cells inside his or her brain.

The EEG shows how the brain is working. It can show changes in the electrical signals that may be caused by a disorder, such as epilepsy.

What is a Video EEG?

Video EEG uses special equipment and a camera to record your child's brain waves and behaviour at the same time.

The purpose of video EEG is to monitor your child's brain waves and behaviour during the events (seizures or episodes) your child is having. If your child has different types of events, we like to record examples of each, if possible.

The results will help the doctor:

- learn whether your child is having epileptic seizures or other episodes
- find out the type(s) of seizures and where they begin in the brain
- decide the best way to manage your child's condition

The doctor will decide how long your child needs to be monitored. This can be from several hours to 4 days, depending on how many seizures or episodes your child is having.

What should I do before the Video EEG?

- Make plans so that one parent or another adult caregiver can stay with your child at the hospital for the entire length of the test. We strongly encourage you to make arrangements for someone else to care for your other children. Brothers, sisters or friends may plan short visits.
- Wash your child's hair. The hair must be clean and free of any hair products, such as conditioner, hair spray, gel, wax, oil or mousse.
- Your child can eat, drink and take any prescribed medications before the EEG, unless your doctor has given you other instructions.
- Do not let your child drink or eat anything that contains caffeine. This means no cola or pop, energy drinks, hot chocolate, tea or coffee, or chocolate.

What should I bring to the hospital?

- Your Child's Ontario Health Card.
- Your child's medications in their labelled containers.
- Shirts, tops and pajamas that open in the front. Your child will not be able to put clothes over his or her head while the EEG equipment is in place.
- Activities to keep your child busy during the test, such as movies, music, homework, books, crafts, toys or games. You may bring in MP3, CD or portable DVD players with earphones.

Where is the Video EEG done at the hospital?

Daytime Video EEG: If your child will be monitored for part or all of a day, this is done as an outpatient service.

- Come to 4U** – If your child does not need sedation, the Video EEG is done in 4U (4th floor, between the yellow and blue sections of the McMaster University Medical Centre).
- Come to 4X** - If your child needs sedation to apply the electrodes, the Video EEG is done in 4X, the medical day care unit (4th floor, yellow section of the McMaster University Medical Centre).

Overnight Video EEG: If your child will be monitored for more than a day, your child will be admitted to the hospital.

- Come to Ward 3B or 3C**
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Who will care for my child during the Video EEG?

During the Video EEG, your child will be cared for by a team of health care providers. You may meet these members of our team:

- Pediatric Neurologist
- Technologist
- Nurse Coordinator

A parent (or an adult caregiver you have chosen) will also care for your child. You know your child best. You are the best person to identify your child's unusual events. We will tell you, and other adult caregivers, how to record these events.

What happens during the Video EEG?

A member of our team will help you and your child get settled in the room where the test will take place. Please feel free to ask questions at any time. We will do our best to make you comfortable and respect your privacy at all times.

A parent or adult caregiver must be with your child at all times.

To get the EEG started, the technologist will:

- measure your child's head and make marks on his or her scalp with a non-toxic, washable pencil
- gently scrub the scalp at each mark with a cotton-tipped swab and a cleansing cream
- place 25 electrodes, one in each spot, with a soft paste
- connect the electrodes to the recording equipment with long wires

The electrodes will record your child's brain waves while he or she is awake and asleep, for the length of the test. At the same time, the video camera and microphone will continuously record your child's actions and sounds.

If your child is admitted to the hospital, he or she may have his or her heart beat, blood pressure and oxygen level monitored.

Your child will need to stay in front of the video camera for several hours or days. This means eating and playing as well as sleeping in the hospital bed. Your child can have a sponge bath, as he or she cannot shower with the electrodes in place.

To help pass the time, bring in your child's homework, music, movies, books, crafts, toys or games. The Child life Specialist may provide some other activities to make your child's stay more enjoyable and comfortable.

A TV and telephone is available on Ward 3B and 3C. You cannot use cellphones near the monitoring equipment.

For daytime (outpatient) video EEG, you are responsible for providing meals and snacks for your child. If your child will be staying overnight, the hospital will provide your child's meals. Parents and other caregivers must provide their own foods and drinks.

If you have questions or need help, please speak with the nurse or technologist. Our staff can relieve you, if you would like to go to the cafeteria or coffee shop, or have a shower.

What happens after the EEG?

When the monitoring is over, the electrodes will be taken off. This does not hurt. The technologist will clean your child's hair. Some paste may remain, so you may need to wash your child's hair at home. When you leave the hospital, your child can resume all his or her usual activities.

How do I get the results?

The technologist cannot give you any results during the monitoring. After the Video EEG, the results are analyzed and a report will be send to your neurologist. You can make an appointment with your child's neurologist in a few weeks time to discuss the results.

**If you have questions or would like more information,
please call the Nurse Coordinator of the
Pediatric Epilepsy Monitoring Unit at 905-521-2100, ext 73640.**