

Video EEG (Video Electroencephalogram)

This booklet answers common questions about the Video EEG test.

What is an EEG?

- An EEG or electroencephalogram is a test that records brain waves. This is the pattern of electrical activity in your child's brain.
- Small buttons with wires (electrodes) will be placed on your child's scalp. They pick up the electrical signals from 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 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 results will help your neurologist:

- learn whether your child is having epileptic seizures
- find out the type(s) of seizures and where they begin in the brain
- decide the best way to manage your child's condition
- decide whether your child might benefit from epilepsy surgery

Your child will be monitored for several hours, or up to a few days, depending on how many seizures or episodes your child experiences.

If your child has different types of events, it is important to record examples of each, if possible.

What should we do before coming to the hospital?

- Make plans for a parent or another adult to 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.

Will my child visit an epilepsy neurologist before the video-EEG?

The Epilepsy Monitoring Unit (EMU) team will review your child's referral for Video EEG.

The team will make an appointment for your child with an epilepsy neurologist, if your child was referred to know:

- where seizures happen in the brain
- whether he or she might benefit from epilepsy surgery

What should I bring to the hospital?

- Your child's Ontario Health Card.
 - Your child's medications in their labelled containers.
 - Shirts, tops and pyjamas 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.
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Where is the Video EEG done at the hospital?

❑ For DAYTIME Video EEG - Come to 4U

If your child will be monitored for part or all of a day, come to 4U (fourth floor between yellow and blue sections).

❑ For OVERNIGHT Video EEG - Come to Patient Registration

If your child will be monitored for more than one day, your child will be admitted to McMaster Children's Hospital.

Come to Patient Registration (second floor). Your child will be registered, and then admitted to the Epilepsy Monitoring Unit on 3C (third floor, red section).

Who will care for my child during the test?

A parent (or an adult caregiver you have chosen) must be with your child at all times.

During the Video EEG, a team of health care providers will care for your child. Team members may include:

- Neurologist
- EEG Technologist
- Nurse Coordinator
- Nurse Practitioner
- Registered Nurse
- Resident Physician
- Registered Respiratory Therapist

What happens before the Video EEG?

A member of our team will help you and your child settle in the monitoring 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.

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



What happens during the video EEG?

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.

Your child may have his or her heart beat, blood pressure and oxygen level monitored.

Your child is required 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 may have a sponge bath, as he or she cannot shower with the electrodes in place.

To help pass the time, please bring in an activity for your child such as homework, music, movies, books, crafts, toys or games. A television and telephone are available on Ward 3C. The Child Life Specialist may provide some other activities to make your child's stay more enjoyable and comfortable.

For daytime 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 food and drinks. There is a sleeping cot available in the room for one caregiver to spend the night.

What is my role during the Video EEG?

We welcome your help and support during this test.

During the video EEG, you can:

- Help keep your child calm and relaxed. Talk with your child and provide reassurance.
- Help your child pass the time with quiet activities such as reading, watching movies or playing games.
- Help keep your child safe. Make sure the side rails of your child's bed are up and locked.
- Help us gather important information about your child's events.
 - ✓ Push the event button during any possible seizure. We will show you how to do this.
 - ✓ Keep a log sheet of possible seizures including date, time, and a description of the event.
 - ✓ Make sure that the view of the camera is not blocked.

If you have questions or need help, please speak with your child's nurse or technologist.

What happens after the EEG?

- The electrodes will be taken off when the monitoring is finished. This is not painful.
 - The technologist will use soap and water to remove the electrodes. If some paste remains, you may need to wash your child's hair at home.
 - When you leave the hospital, your child can resume all of his or her usual activities.
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