

Epilepsy Monitoring Unit (EMU)

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Epilepsy Monitoring Unit (EMU)

Your health care provider has talked with you about being admitted to the Epilepsy Monitoring Unit.

What is the Epilepsy Monitoring Unit (EMU)?




- The Epilepsy Monitoring Unit (EMU) provides safe evaluation and treatment of episodes, seizures, or epilepsy. The goal of admission to the EMU is to record your seizures to help us better understand your seizure disorder.
- Being admitted to the EMU gives our team a closer look at what you are experiencing. This includes what happens before, during, after, and between your seizures.
- Our staff are trained to care for people with epilepsy, including monitoring seizures using video-EGG technology throughout a patient's stay in the EMU.
- The EMU is a mixed-gender unit on the Neurology floor at the Halifax Infirmary. The unit has 4 beds separated by curtains. Most of the time the curtains between beds are kept open to view patients in case of a seizure.
- There is a closet and storage area for your personal items. There is also a bedside table, an over-bed table, and a chair beside the bed.
- There are 2 patient washrooms in the EMU. Each washroom is shared by 2 patients.

Being admitted to the EMU

- Your epilepsy specialist will decide if being admitted to the EMU is right for you. If so, they will send a referral to the epilepsy program nurse and your name will be added to the waitlist. How soon you are admitted depends on many things, including:
 - › Your health
 - › Whether you are available for treatment
 - › If there is a bed available for you to be admitted
 - › Your anticipated length of stay
- Beds often become available on very short notice (1 to 2 days). When a bed is available, the epilepsy program nurse will call and offer you a date for admission.
- In order to be admitted to the EMU, you must sign a consent form to allow us to record you. This consent form will also allow you to specify if your recorded image can be used for medical education or research purposes.

- Anti-seizure medications may be lowered during your stay in the EMU to help increase your chance of having seizures. Any medication changes will be decided by the epileptologist (neurology doctor with special education in epilepsy) and done as safely as possible. **Do not lower your anti-seizure medication on your own before your admission unless told to do so by your epilepsy specialist.**

What should I bring with me?

- Provincial health card
- All of your medications in their original, labelled containers. This includes prescription, over-the-counter, and herbal medications, vitamins, and supplements. 
- Personal care items (like soap, toothbrush, toothpaste, deodorant, disposable and/or electric razor, make-up) 
- Glasses, contact lens case and solution, if needed 
- Hearing aid, if needed
- You will not be able to shower until the EEG electrodes are removed, but you will be able to wash at the washroom sink each day.
- Most days will be spent sitting in bed or near your bed. Bring items to help pass the time, such as books, magazines, puzzles, crafts, or any other items you wish.
- You are welcome to bring a laptop, tablet, or cell phone. **Be sure to also bring headphones and chargers. Do not hold or use a device that is plugged in to charge, as this affects the EEG recording.**
- It is important to bring comfortable clothes and shoes that you can put on and take off when the electrodes are attached, such as:
 - Tops that button or zip down the front or back. You will **not** be able to take clothing off over your head once the electrodes are in place. We have hospital gowns that tie in the back, if needed
 - Comfortable bottoms like shorts, sweats, or leggings
 - Sleepwear that is comfortable and covers you well
 - Slippers (with non-slip soles) and a bathrobe
 - An extra sweater in case you are cold
 - Mobility (movement) aid (like a cane or walker)
 - You may also wish to bring your own pillow and blanket

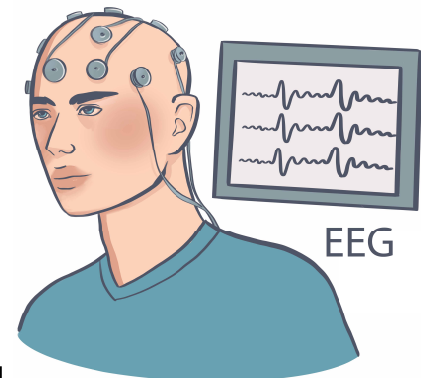
- Hospital meals are provided, but you can also bring snacks and non-alcoholic drinks with you, if you wish.
- The EMU may be brighter and noisier than sleeping at home. We have earplugs available, but you are welcome to bring your own. You may also wish to bring an eyemask.
- **Chewing gum is not allowed in the EMU.** It is a safety risk and can affect the EEG recording.

What is video-EEG monitoring?

- Electroencephalography (EEG) is a painless test that records the electrical signals from your brain. The EEG technologist will attach electrodes to your scalp with a glue-like substance.
- During a video-EEG, video and audio of the physical signs and sounds of the seizure are also recorded. This gives your epileptologist important information about your condition that a non-video EEG cannot.
- Usually, an outpatient EEG recording lasts 30 to 60 minutes. Now that you are admitted to the Unit, you will be set up with 24 hour EEG recording.

How does a video-EEG work?

- For most of your time in the EMU, you will have EEG electrodes attached to your scalp to record the electrical activity in your brain.
- The wires from the electrodes will be plugged into a small box, called an amplifier. The amplifier can be stored in a bag you wear over your shoulder and carried with you.
- The amplifier is connected to the monitoring system through a cable in a wall outlet next to your bed. The cable is long enough for you to move around the room, but you cannot leave the room unless it is for a test requested by the epileptologist. **It is important that the cable is always plugged into the amplifier so no information is missed.**
- There will also be a camera and microphone recording your movements and noises in the EMU. This lets us review what physical changes happen when you have a seizure and how you respond to the questions we will ask you during your seizure assessment. There are no cameras in the washrooms.



- The epileptologist will review the EEG recordings taken while in the EMU.
- Audio and video recordings are only reviewed:
 - › after you press the seizure event button.
 - › when you have had a seizure or episode.
 - › when there are findings on the EEG recording.
- The EEG and camera recordings are also used by EMU nurses and EEG technologists to monitor for seizures.

Seizure assessment

- Any time you have a seizure in the EMU, an assessment (test) will be done by your nurse or EEG technologist. These assessments help us better understand how your seizures affect you. They also help us know where in your brain the seizures are coming from.
- When you press the seizure event button or look like you might be having a seizure, the nurse or EEG technologist will come to your bed right away to check you and ask questions. During the seizure, they will also ask you to do and remember things. This information helps us better understand your condition. **It is important that you take part in this assessment as best you can.**

What should I expect?

- When the epilepsy program nurse calls to arrange your admission, they will tell you how to be admitted and where to go when you arrive.
- You will be admitted to the hospital for video-EEG monitoring 24 hours a day until we have collected the information we need. This may take several days to several weeks. The average length of stay is 2 weeks, but it may be longer or shorter.
- **You must stay in the EMU during your admission.** You may only leave for a test requested by the epileptologist. It is important to bring things with you to help pass the time. See the list of suggested items to bring on page 2.
- When you arrive at the EMU, staff will help you get settled. An EEG technologist will connect your EEG electrodes and explain the EEG equipment. The nurse and EEG technologist will ask about your seizures, medications, and other health information, and explain how the monitoring system in the room works.

- The EEG electrodes may make your scalp itchy. Tell your nurse and/or the EEG technologist if your scalp gets itchy or if you have tender (sore) areas anywhere on your head.
- If you are in the hospital for more than 1 week, your electrodes may be taken off on Friday and not reconnected until Monday. This will give you time to shower and wash your hair. **You must tell the nurse if you are going to have a shower. For safety reasons, tub baths are not allowed.**
- If your electrodes are removed, you may be given a weekend pass to go home. This depends on many things. EMU staff will decide if a weekend pass is right for you.
- How often you have seizures may change during your stay in the EMU. Do not worry — this is normal.

What is available on the EMU?

The EMU has:

- › A small fridge
- › A microwave
- › A kettle
- › A Keurig® coffee machine
- › A TV with a DVD player and a selection of free movies
- › Free Wi-Fi access
- › An iPad® for each patient to use during their stay

What can I do to help myself?

There are many things you can do that can help make your admission a success.

1. Tell us if you are going to have or have had a seizure.

Tell us if you feel like:

- › you are having a warning of a possible seizure.
- › you are having one of your usual episodes.
- › you are having a definite seizure.
- › you may have just had a seizure.

Call the nurse and EEG technologist, and press the seizure event button.

This button sounds an alarm and also places an electronic mark on your EEG recording. This tells the epileptologist where to look on the recording to see what was happening when you had symptoms. EMU staff will show you how to use the seizure alarm.

2. Make sure the camera is set up where it can record you.

The camera cannot follow you when you move. It is usually set up to observe you while you are in bed or in a chair by the side of the bed. If you are going to move to another part of the room, ask the nurse or EEG technologist to move the camera to make sure you are being recorded.

3. Do not share private information you may hear about other patients.

You will be sharing a room with 3 other patients and may see or hear private information about them. You are responsible for respecting the privacy and confidentiality of other patients, families, visitors, and staff. We also ask that you and your visitors be respectful to the other patients and keep your noise level low.

Safety in the EMU

- Patients are admitted to the EMU so their seizures can be recorded. This means we are expecting you to have seizures. Sometimes, when medications have been lowered, seizures can be longer, happen more often, or be more severe (very bad) than they were at home. We have medications available to stop prolonged seizures or clusters of seizures. These medications will stop your seizures — do not worry.
- Our goal is to record small seizures to see where they start.



- The EMU has specialized monitoring equipment, safety features, and nurses and EEG technologists. **There is a nurse in the room at all times** and an EEG technologist from 8 a.m. to 4 p.m. Please ask staff if you need help.
- The room is built for safety, including a floor made of special material and padding on most surfaces (such as bed rails) to lower the risk of injury.
- **If you are in bed, the bed rails should be raised.** This will prevent you from injuring yourself on the rail or falling out of bed if you have a seizure.
- If you need to get out of bed, **do not climb over the bed rail.** If you are not able to lower the rail on your own, ask the nurse or EEG technologist to help.

Smoking and cannabis

All Nova Scotia Health properties are smoke-free and vape-free. **Smoking and vaping is not allowed anywhere on the hospital grounds. While admitted to the EMU, you cannot go outside to smoke.** The epileptologist can prescribe nicotine replacement therapy to help with any cravings you may have. Please ask EMU staff if you would like help stopping smoking while in the hospital.



Scent-free

All Nova Scotia Health properties are scent-free. Do not wear or bring any scented products, such as perfume, hairspray, cologne, deodorant, or aftershave when you come to any of our facilities.

What about visitors?

- Your family and friends can visit you in the EMU.
- There are certain times during the day when testing is done and visitors are not allowed. Please check with EMU staff before planning a visit. Visitors can bring you meals, snacks, and any non-alcoholic drinks.
- Visitors cannot stay overnight in the EMU because of safety and privacy concerns. Exceptions may be made in certain circumstances. **You must get approval for overnight stays from the epilepsy specialist before you are admitted.**
- Volunteers from the hospital's Friendly Visitor Program are available to visit you. Tell EMU staff if you would like a volunteer to visit you.

Your EMU team

Epileptologist: An epileptologist will be in charge of your care while you are in the EMU. They will manage your medical care and review the video-EEG recordings each day. They will visit you every few days to check how you are doing and answer any questions you have. More than one epileptologist may look after you during your stay.

Neurology resident or epilepsy nurse practitioner: A neurology resident doctor or epilepsy nurse practitioner usually works closely with the epileptologist. They will make sure you have everything you need on admission. They will visit you each day to check how you are doing, make any medical changes you need, give you information, and answer any questions you have.

Epilepsy program nurse: The epilepsy program nurse coordinates your admission to the EMU. They will give you and your family information. You can call them if you have any problems or questions after you leave the hospital.

Nurses: There will be a nurse in the EMU at all times. They will manage your medications, make sure you are safe during a seizure, and do seizure assessments. They will help you with daily care needs and any issues you have during your stay.

EEG technologists: There will be an EEG technologist in the EMU from 8 a.m. to 4 p.m. each day. They will connect, reconnect, and remove your EEG electrodes. They will monitor your EEG recordings during the day and help with seizure assessments. They will control and/or manage the equipment used for the video-EEG recording.

Neuropsychologist: The neuropsychologist is a psychologist who specializes in assessing thinking, memory, and language in people with epilepsy. They will be involved in your care if you need neuropsychological testing or other specialized tests during your stay.

Other team members: Depending on your situation, you may also meet other members of our epilepsy team, like a social worker, neurosurgeon, or psychiatrist.

Remember:

- Wash your hair the day before or morning of your admission.
Do not use any gel, mousse, oil, creams, or hairspray.
- **Do not braid your hair.** This will help us to connect the EEG electrodes.
- Your epilepsy health care team will work together to keep you safe while you are in the EMU. During your stay, you will see a epileptologist, EEG technologist, and nurse every day. Please ask them for help. We understand that the monitoring system limits what you can do for yourself.



For more information, contact:

Epilepsy program nurse
Halifax Infirmary site, QEII
Phone: 902-473-2136
Email: epilepsy@nshealth.ca

Going home

- When enough information has been collected, we will make plans to discharge you from the EMU.
- We will review your medications and plans for next steps with you before discharge. Follow-up appointments will be arranged, as needed.
- Please call the epilepsy program nurse if you have any questions or issues after you are discharged:
 - › 902-473-2136



