

Video EEG Monitoring
in the Epilepsy
Monitoring Unit (EMU)
for Adults

Location: 96 Jonathan Lucas St., Charleston, SC

Telephone: 843-792-3223

Website: MUSChealth.org/neurosciences



Changing What's Possible

Video EEG Monitoring in the Epilepsy Monitoring Unit (EMU)

THANK YOU for choosing the Medical University of South Carolina for your medical treatment. As an academic medical center, or teaching hospital, the Medical University of South Carolina (MUSC) is at the forefront of the latest advances in medicine, with world-class physicians, groundbreaking research and technology that is often among the first of its kind in the world. Patients also benefit from a multidisciplinary, team approach to care that involves the close collaboration of specialists from many different areas. As a teaching hospital MUSC is committed to providing accurate and current health information.

This resource was made to help patients understand more about their condition, treatment, or procedure. This handout is a guide to go with your health care providers instructions. It is not to take the place of professional medical care. Only your physician can diagnose and treat a medical condition. Please speak with your health care provider if you have any questions.

Location: 96 Jonathan Lucas Street, Charleston, SC 29425-3470

Telephone: 843-792-3223

Webpage: [MUSChealth.org/epilepsy](https://www.musc.edu/epilepsy)

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Introduction

The MUSC Comprehensive Epilepsy Center offers advanced diagnostics, multidisciplinary planning and a full spectrum of medical and surgical therapies. Our team of clinicians and researchers are all working together in leading-edge facilities designed specifically for the needs of the epilepsy patient.

Our Comprehensive Epilepsy Center has been designated a Level 4 Epilepsy Center, which is the highest designation given by the National Association of Epilepsy Centers. This NAEC accreditation recognizes extensive expertise and truly comprehensive care in the medical, surgical, social and psychological management of epilepsy.

MUSC's six-bed epilepsy inpatient unit offers the latest digital monitoring and video capabilities to quickly and efficiently develop a definitive diagnosis for patients who do not respond to first-line therapies. Seizure activity is captured and evaluated in a fraction of the time required in non-dedicated environments.

What to Expect

Video EEG Monitoring is a more specialized form of EEG testing. It records video and brainwave activity at the same time that a seizure or event is occurring. It helps doctors determine the nature of a seizure or event as well as how to most effectively treat the condition. Video EEG Monitoring requires an admission into the hospital with an average stay of 4 to 6 days. The goal of your admission is to capture all types of occurring events so a stay longer than 6 days may be necessary.

A Video EEG is used to diagnose episodic events, these events may be, but are not limited to: epileptic seizures, fainting or black-out spells, events of unknown origin, confusion, hallucinations or behavioral challenges.

During your stay you are required to have a support person stay in the room with you at all times. He or she will alert the nurse at the onset of a seizure by pressing the event button and will document all events on the Event Log Sheet provided by your EEG Technician.

Your EMU room will be a regular patient room with a private bathroom and is furnished with a pull out couch. While in bed, all four padded side rails must be up to ensure patient safety.

Patients who have seizures are at an increased risk of falls; therefore a nurse must assist you out of bed to ensure your safety.

You will NOT be permitted to smoke or use an e-cigarette while you are being monitored. MUSC is a tobacco free campus. Your doctor may prescribe a nicotine patch to help you through your hospitalization time, if you wish.

Steps to having your EEG performed:

- A soft, red pencil will be used to mark areas where the electrodes will be placed.
- A minimally abrasive skin prep will be used to clean the marked areas.
- 25 electrodes will be applied using glue called Collodion. This glue has a strong odor much like ether, but is non-harmful and will not exacerbate asthma. It is the best medium for attaching electrodes as a secure attachment is needed for quality EEG recordings.
- An EEG Technician will visit you each day to do specific activations (photic stimulation and hyperventilation), unless contraindicated. Sleep deprivation may also be ordered.
- Throughout the day, a nurse will assist you to a chair, where you will be able to use stationary bike pedals.
- An epileptologist will review your Video EEG daily.

An I.V. will be placed in your arm, capped and left in place for the purpose of administering emergency medication if necessary.

You will not be able to shower or wash your hair, however you may sponge bathe daily.

After your Video EEG is complete, the electrodes are removed with collodion remover, an oily substance similar to baby oil, and/or acetone, a solvent with a strong odor. Neither of these substances will irritate your skin or hair. You may shower if you wish prior to going home.

Frequently Asked Questions (FAQ)

What is epilepsy?

Epilepsy is a neurological condition that causes the brain to produce sudden bursts of electrical energy. For the brain to function there needs to be a balance between increased activity (excitation) and restraint (inhibition). When this balance is changed, a seizure may result.

What causes epilepsy?

Epilepsy can result from a birth defect, birth or head injury, brain tumor, or infection in the brain. It can also be inherited. But for half the people with epilepsy, a cause cannot be found. Epilepsy is not contagious. Epilepsy can occur for the first time at any time, and at any age.

What is a seizure?

A seizure is a change in sensation, awareness, or behavior brought about by an electrical disturbance in the brain. Seizures are a symptom of epilepsy. There are several different types of seizures. Seizures can range from tingling in a finger to a generalized (grand mal) seizure, during which people lose consciousness, become stiff, and jerk.

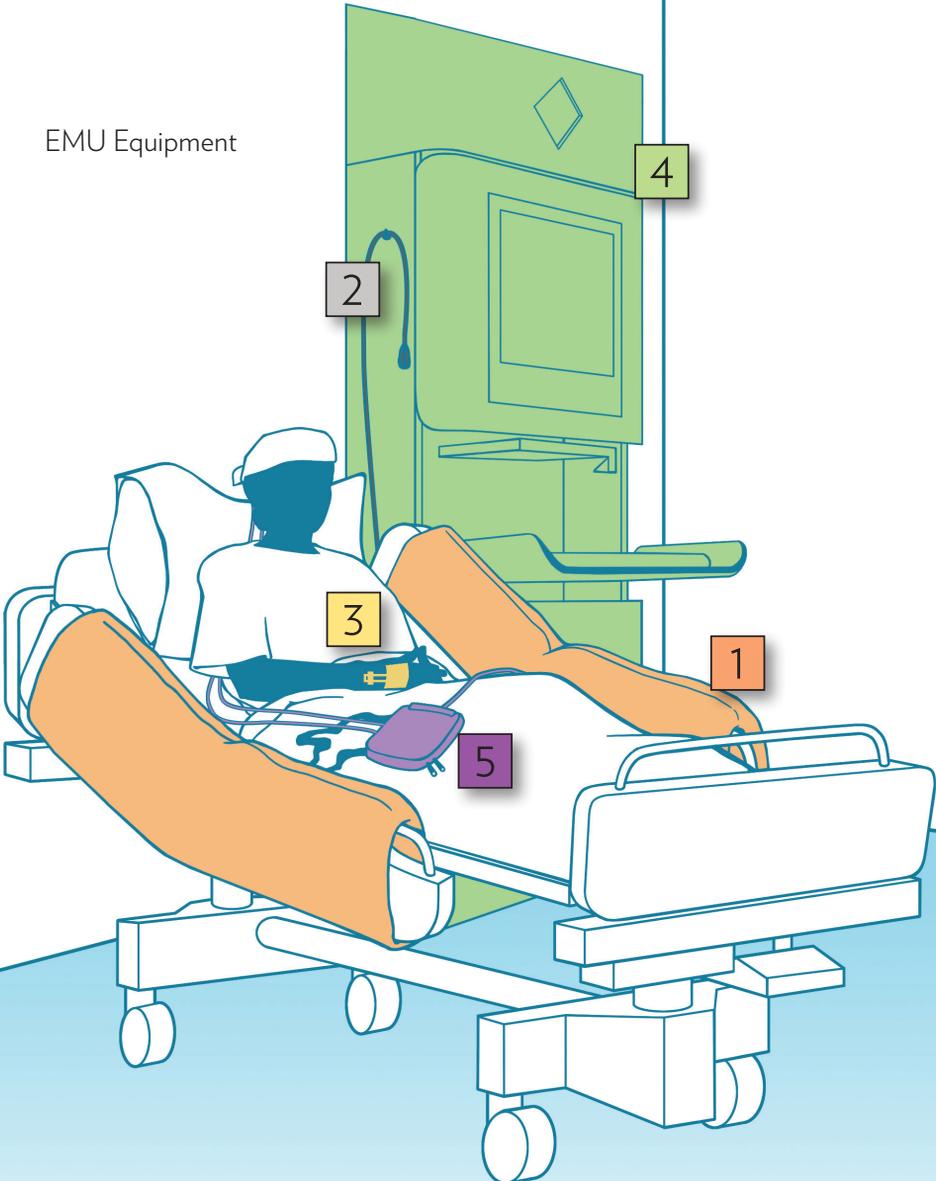
What is the difference between seizures and epilepsy?

Seizures are a symptom of epilepsy. Epilepsy is the underlying tendency of the brain to release electrical energy that disrupts other brain functions. So the seizure is the symptom of this underlying condition. Having a single seizure does not necessarily mean a person has epilepsy.

How many people in the US have epilepsy?

According to the Epilepsy Foundation, almost 2.2 million Americans are currently living with epilepsy.

EMU Equipment

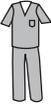
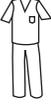


1 Seizure pads	4 EEG recording station
2 Event button	5 Electrode bag
3 Capped IV	

EMU Staff

You will be cared for by a number of different staff in the EMU: nurses, nursing assistants, respiratory therapists, physical therapists, occupational therapists, speech pathologists, registered dietitians, pharmacists, nurse practitioners, and attending physicians. Medical students, residents, and fellows (physicians performing advanced training) are also integral part of the team and function under the supervision of the attending physicians.

Uniform	Title- Definition
	Unit Secretary - Ceil blue lab coat/scrub jacket with business attire or ceil blue lab coat ,non-scrub top and khaki scrub pants - Located at nurse station. Assists with unit flow and handles every day administrative tasks. Information resource for families.
	EEG Technician – Ceil blue scrub top/navy blue scrub pants -Skilled in performing neurodiagnostic studies and maintains the integrity of EEG recording in the EMU.
	Patient Care Tech - Black scrubs - Assists with activities of daily living. Assists nurses and doctors in care of patient.
	Occupational Therapist - Red scrub top/black scrub pants - Help patients develop, recover, or maintain daily living and work skills.
	Pharmacy Technician - Olive scrubs - Deliver medications to the unit from the pharmacy.
	Infection Control Technician - Pink scrubs
	Physical Therapist - Steel gray scrubs - Provide services to restore function, improve mobility, relieve pain, and prevent or limit permanent physical disabilities.
	Radiology Tech - Khaki scrub top/black scrub pants - Skilled in taking x-rays, CT, and MRI images.

	<p>Nurse - Royal blue scrubs - Provides total nursing care, delivers medication, and constantly observes and treats the patient. Monitors all clinical parameters and coordinates medical care with other team members.</p>
	<p>Respiratory Therapist - Caribbean blue scrubs- Evaluates, treats, and cares for patients with breathing or other cardiopulmonary disorders.</p>
	<p>Speech Therapist - Misty gray scrubs- Works with patients who have language, cognitive, speaking and swallowing difficulties.</p>
	<p>Registered Dietitian - Brown scrubs- Assists with dietary selection and intake, ensures all patients receive adequate nutrition.</p>
	<p>Vascular Technologist - Ceil blue scrub top/navy blue scrub pants - Uses ultrasound technology to assess blood vessels in the neck, head, and extremities and diagnose blood vessel disorders.</p>
	<p>Social Worker – Business attire with short white coat - Provides social support to patient and families. Assists in discharge and/or rehabilitation planning.</p>
	<p>Case Manager - Business attire with short white coat- Provides help with financial planning, discharge planning, transfer to other levels of care, and insurance-related issues.</p>
	<p>Nurse Practitioner - Long white coat - A nurse with advanced training who diagnoses and treats illnesses, orders and interprets diagnostic tests and prescribes medication.</p>
	<p>Medical Student - Short white coat - physician in training.</p>
	<p>Nursing Student - White scrub top/white scrub pants - Nurse in training.</p>
	<p>Nurse Manager - Business attire with white coat - Oversees nursing staff and the unit.</p>

MUSC Services

Visiting Hours

MUSC Medical Center recognizes that open visitation plays an important role in a patient's healing and recovery. Family and friends are welcome to visit often while their loved ones are in the hospital. Only one adult may spend the night with the patient. Quiet hours are observed between 12:30 a.m. and 3:30 a.m. and 2:00 p.m. and 4:00 p.m.

Pastoral Care

Pastoral Care Services is committed to providing care that respects the religious and spiritual values of all patients, family members and staff persons. The phone number to reach Pastoral Care Services is 843-792-9464. When calling from within the hospital room you may dial 2-9464.

Our Services Include:

- Spiritual Support
- Support through experiences of pain, suffering & loss, or change of health status
- Coping with hospitalization & treatment
- Specific faith tradition options are offered
- Guidance in decision-making: treatment options, transition concerns, end-of-life choices
- Assistance with Advance Directives--Living Wills and Health Care Power of Attorney
- Notary Public, Ombudsmans

Chaplains provide and facilitate:

- Seasonal Worship Services
- Memorial Services
- Grief and Support Services, as requested
- Anatomical Gift Service/MUSC's Body Donation Program
- Religious ministry including prayer, blessings, baptisms, communion, other religious rituals, sacraments

A chaplain is available and on-call in the hospital 24 hours a day, 7 days a week. Chaplains seek to respect fully all religious and spiritual needs. Staff chaplains seek to meet needs as they arise, but there are

also instances where clergy of specific religious affiliation can be called and accessed for patient needs.

Guest Services

We have an entire team to assist you during your loved one's stay at MUSC. House Concierges are available to assist by validating parking tickets, finding hotel rooms, and/or dining options. You may contact your House Concierge by calling 843-792-6736 or visit the concierge desk in the 9th floor waiting area.

Dining

Eating well during your hospital stay will contribute to a quicker and better recovery. To ensure that you eat well, Sodexo offers the patient room service system, At Your Request[®]. This room service system is like being in a hotel instead of a hospital. Patients can call and order the foods they want, when they want it! A restaurant style menu is located on the patient's bedside table and is geared to increase food variety and to bolster patient satisfaction. If a patient is not able to call and place their menu order, a Room Service Customer representative will assist. The patient and their support person will be provided with three meals per day. A microwave, refrigerator, freezer and coffee pot are available on the unit for your convenience.

MUSC Cafeteria

Located on the 1st floor, MUSC Hospital.

Hours: 6:15 a.m. - 3:00 a.m.

Menu Line: 843-792-8713

Rutledge Tower Cafe

Located on the 1st floor, Rutledge Tower.

7:30 a.m. - 3:00 p.m. Monday - Friday

Breakfast: 7:30 a.m. - 10:00 a.m.

Lunch: 11:00 a.m. - 2:00 p.m.

Chick-fil-A

Located on the 1st floor, MUSC Hospital.

Hours: 10 a.m. - 7 p.m.

Closed Sundays

Subway

Located on the 1st floor, MUSC Hospital.

Hours: 8:00 a.m. - 3:00 a.m. Monday - Friday

10:00 a.m. - 3:00 a.m. Saturday - Sunday

Pandinis

Located on the 1st floor, MUSC Hospital.

Serving pizza, sandwiches, salads and pasta.

10:00 a.m. - 6:00 p.m. Monday - Friday

Starbucks

Located inside the MUSC Hospital near the main entrance.

6:30 a.m. - 7:00 p.m. Monday - Thursday

6:30 a.m. - 4:00 p.m. Friday

Closed Saturday and Sunday

Vending and Change Machines

Located on the 1st floor, MUSC Hospital just outside the cafeteria

Available 24 hours a day

Parking

All parking areas around the MUSC Medical Center are staffed by a Parking Management attendant and patrolled by MUSC Public Safety officers. Handicapped parking spots are available in all MUSC Medical Center lots and garages. In addition, there are handicapped spaces located on the horseshoe shaped drive off Ashley Avenue.

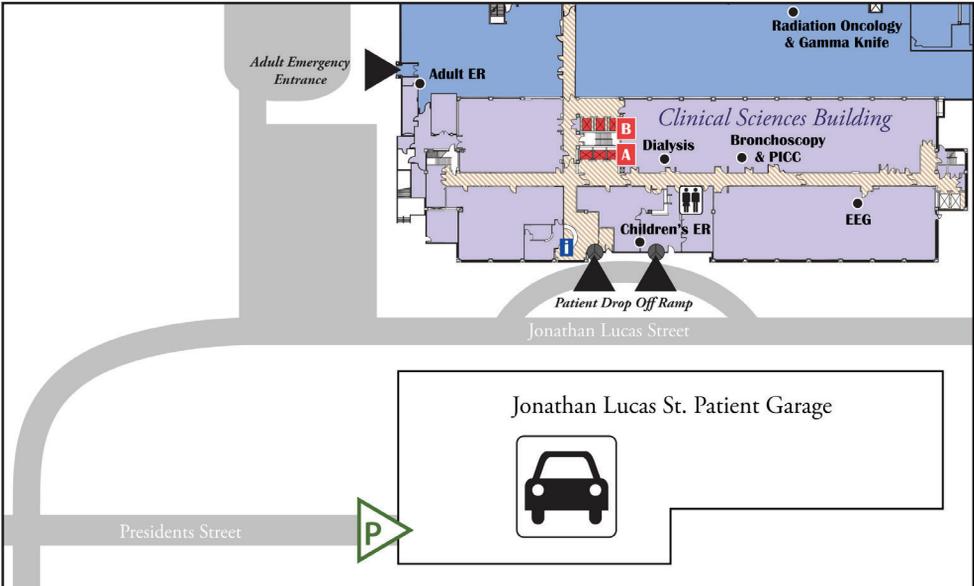
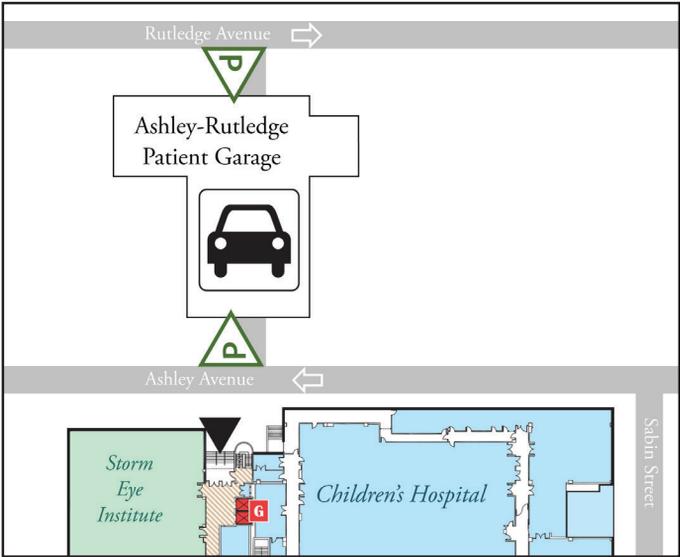
Discounted parking is available to patients families when the visit exceeds two hours or when there are multiple short visits in the same day. Parking is \$6 per day for families, guests of inpatients and support persons. Simply write the name of the patient and the room number

on the back of the parking voucher. Request a receipt if you plan to depart and return within a 24 hour period. Parking is free with a handicap tag. Please ask a staff member for details.

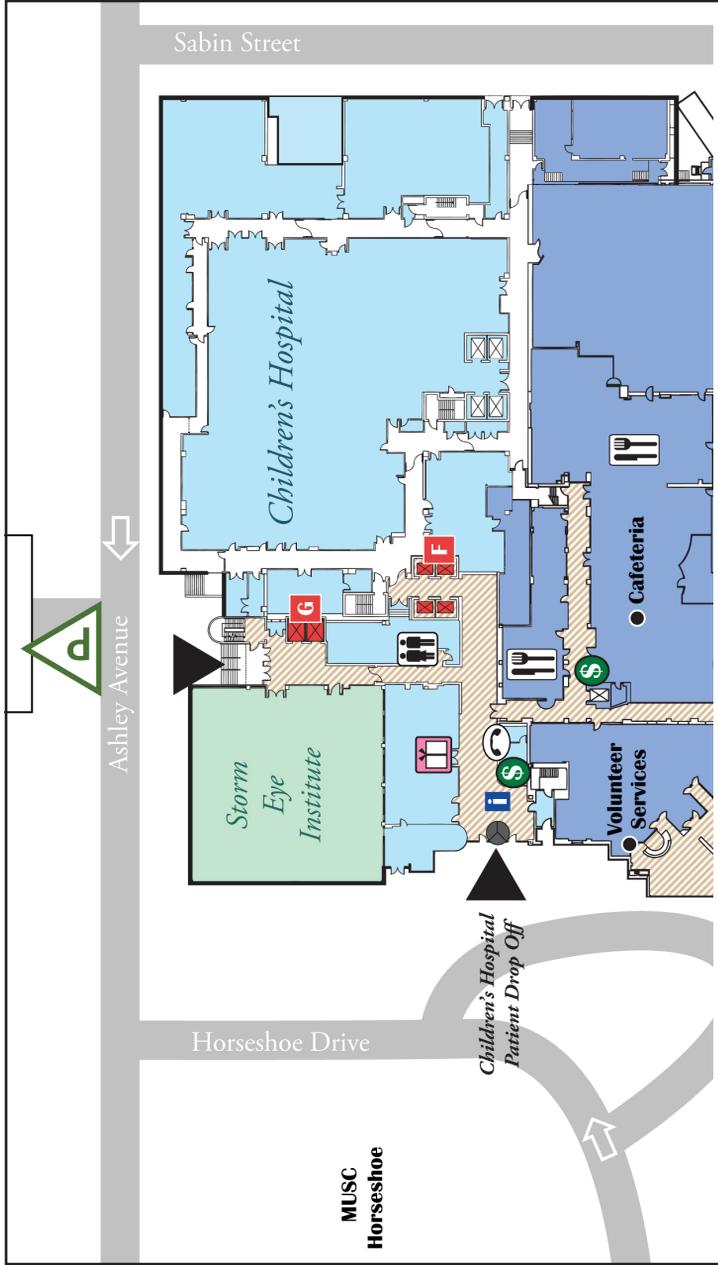
MUSC Patient and Visitor Parking Garages:

Jonathan Lucas Parking Garage: On Jonathan Lucas St., across from the MUSC entrance. Garage entrance located at the four-way stop at President and Jonathan Lucas St.

Ashley Rutledge Patient and Visitor Parking Garage: On Ashley and Rutledge, across from the Storm Eye and Children's Hospital entrance.



Medical University of South Carolina - Main Hospital Map

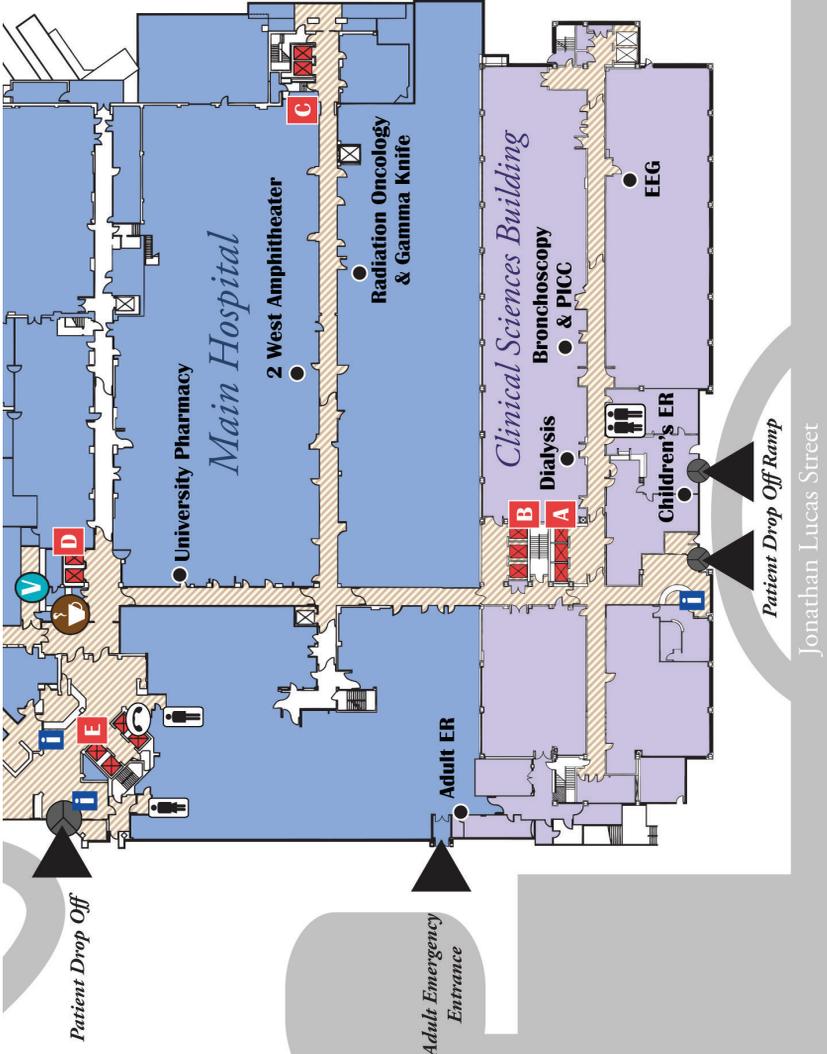


 Elevator

 Information

 Entrance

 Gift shop



- Restroom
- ATM

- Parking
- Vending

- Food
- Coffee shop

MUSC Gift Shop

The gift shop is located in the Children's Hospital Lobby.

ATMs

The following ATMs are conveniently located throughout our hospitals:

Bank of America: 1st floor of the University Hospital and 1st floor of Rutledge Tower

Wells Fargo: 2nd floor of the University Hospital and 1st floor of the Children's Hospital

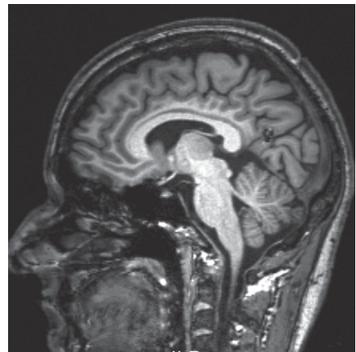
SC Federal Credit Union: 1st floor of the Children's Hospital

Glossary

Terms that you may hear during your stay

1.5T MRI: a certain type of MRI that takes pictures of the brain; the "T" stands for Tesla

3T MRI: a certain type of MRI that takes pictures of the brain. These pictures are a little sharper than the ones from 1.5T MRI's; the "T" stands for Tesla



Absence seizure: seizures that look like brief episodes (usually only a few seconds) of staring, where the person does not know what is going on around them. There is no warning before seizure, and the person will be back to normal right away, as if nothing has happened. Some people used to call these "petit mals"

Adverse effect: an unwanted effect from a medication or other treatment; a side effect

Ambulatory EEG monitoring: EEG test done outside the hospital for 24-72 hours; the patient may walk around and carry on as usual while the EEG is recording

Americans with Disabilities Act: civil rights law that makes it illegal to discriminate against people with disabilities; the act applies to employment, access to public places, and need for accommodation

Amygdala: a small part of the brain that takes in the information, weighs its emotional meaning, and plan a proper response

Anticonvulsant: a name for medicines that treat seizures, these medicines are also called antiepileptic drugs “AED”

Atonic seizure: a type of seizure where the person will suddenly fall to the ground (also called “drop attacks”)

Aura: a warning before a seizure; there are many types of auras, and they can affect vision, taste, hearing, smell, emotions, and the way the body feels

Automatism: automatic movements during a seizure; it may look like lip-smacking, chewing, or fumbling with the hands or fingers

Brand - name drug: a medicine made by a certain company under a trademark-protected name; usually more expensive but also be more uniform in the amount of drug and the way it is made

Catamenial: referring to menses or menstruation (a woman’s “period”)

Catamenial seizures: seizures that get worse during menses

Clonic: jerking or convulsions caused by muscle spasms

Complex partial seizures: a seizure that involves only one part of the brain and impairs consciousness

Computed Tomography (CT): a “CT scan” (also called a CAT scan), uses x-rays and computers to create pictures of the inside of the body. It is very good at finding bleeding or other urgent problems with the brain

Convulsion: an older name for a tonic-clonic seizure

Corpus callosum: nerve fibers that connect the two halves (“hemispheres”) of the brain; helps the two hemispheres communicate and share information

Corpus callosotomy: a surgery that disconnects the two halves of the brain in order to reduce “atonic” and “tonic-clonic” seizures

Cortical dysplasia: an area of the brain that did not develop normally. As a result there may be problems with the brain cells in this area and this may cause seizures

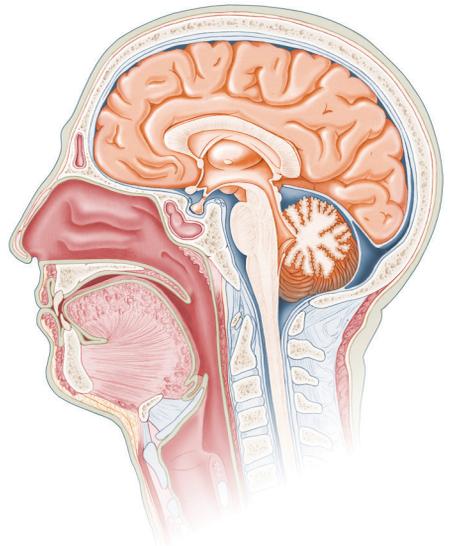
Déjà vu: feeling as if one has lived through or experienced this moment before; may occur in people without medical problems or just before a seizure

EEG (electroencephalogram): a test that records brainwaves and helps to detect seizures

Electrode: a small disk that attaches to the head to send data to the EEG machine

Encephalitis: inflammation of the brain (usually caused by a virus)

Epilepsia partialis continua: a seizure that does not stop by itself, and causes muscles to tighten or jerk (usually in the face, arm, or leg); usually the person does not lose awareness



Epilepsy: a chronic disorder of the nervous system that causes seizures. The seizures may or may not include a change in awareness, abnormal movements, or behaviors

Epileptiform: related to epilepsy

Epileptogenic: causing epilepsy

Epileptologist: a neurologist with special training in epilepsy

Febrile seizure: seizure associated with high fever in children aged 3 months to 5 years, usually a tonic-clonic seizure

Focal seizure: seizure that begins in one area of the brain (also called partial seizures)

Focus: the part of the brain where seizures start

Frontal lobe: the largest part of the brain; extending from the forehead to behind the ear; it controls movement on the opposite side of the body (the left half of brain controls movement on the right side of the body and vice versa); also plays a role in complex thinking, controlling behavior, and speech

Generalized seizure: seizure that involves both sides of the brain and causes tonic-clonic movements, absence, or atonic seizures

Generic drug: a drug that is chemically identical to the related brand name drug; for example, lamotrigine is a generic drug used for Lamictal (the name brand); generics are usually less expensive, and often work just as well

Grand mal: older term for a tonic-clonic or convulsive seizure

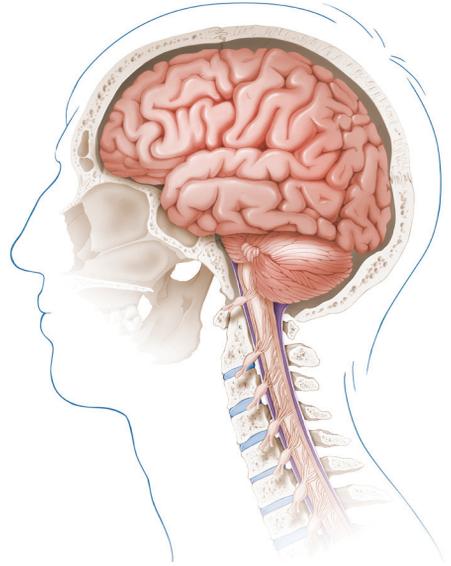
Hemianopsia: a pattern of vision loss involving one half of the visual field

Hemiparesis: weakness of one side of the body

Hemiplegia: paralysis on one side of the body

Hemispherectomy: a surgery to remove one side of brain (one hemisphere); today the surgery often disconnects one half of the brain instead of removing it

High-density Electroencephalogram (HD-EEG): this device uses 256 channels of EEG, non-invasively, to help find the part of the brain where seizures start. MUSC Health is the only Epilepsy Center in the Southeast clinically offering this technology for patients.



Hippocampus: part of the brain that makes new memories and also helps with learning

Hydrocephalus: a back up of fluid (cerebrospinal fluid) in the brain

Hyperventilation: taking fast, deep breaths; may be done during EEG to see how fast breathing changes brainwaves

Ictal: referring to the time during a sudden attack, such as a seizure or stroke

Idiopathic: means the cause is not known

Individuals with Disabilities Education Act (IDEA): a law that says handicapped children must get an appropriate education in the least limiting setting at no cost

Infantile spasms: sudden jerk followed by stiffening; spasms usually begin between 3-12 months and usually stop by age 2-4 years, although other seizure types often develop; in some seizures, the arms are flung out as the body bends forward (“jackknife seizure”), but in others the movements are more subtle

Interictal: the time between seizures

Intractable: difficult to cure; for example, “intractable seizures” are difficult to control with medicine

Intracranial EEG monitoring: an EEG that is recorded from electrodes implanted under the skull.

Investigational drug: a drug available only as part of a study because it hasn't yet been approved by the FDA to be useful and/or safe

Juvenile myoclonic epilepsy (JME): a primary generalized epilepsy syndrome, usually beginning between ages 5-17 years (but can “show up” later). People with JME may have myoclonic (muscle jerk) seizures and possibly also absence and tonic-clonic seizures

Ketogenic diet: high fat, low carbohydrate diet used to control seizures

Landau – Kleffner syndrome: childhood disorder with a drop in language skills and frequent epilepsy waves on the EEG

Laser-induced Thermoablation: our Epilepsy providers offer Visualase stereotactic laser ablation. This procedure is done through strategic collaboration with the Department of Neurosurgery. Our Epileptologists do special studies to figure out where the seizures are coming from: electroencephalogram (EEG) brainwave studies, advanced imaging studies like Positron emission tomography (PET) scans and single-photon emission computed tomography (SPECT) scans, and obviously magnetic resonance imaging (MRI) scans. This noninvasive procedure improves patient care as they are able to go home the next day.

Lennox – Gastaut syndrome: disorder that begins in childhood, with infantile spasms, delays or mental retardation, seizures that do not respond well to treatment, and a certain pattern on the EEG

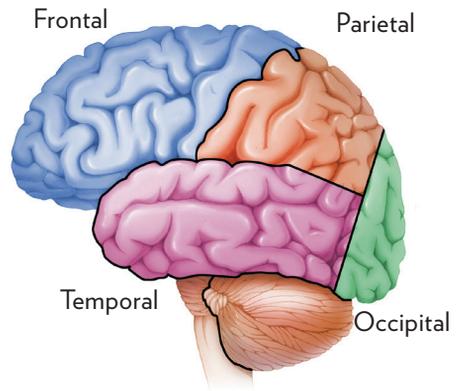
Lesion: in epilepsy the word “lesion” refers to a part of the brain that is not normal and may or may not cause a problem. This may be damage from an accident, a tumor, an abnormal blood vessel, or a part of the brain that didn’t develop correctly

Lesionectomy: surgery to remove a brain lesion

Lobe: a section of the cerebrum, which is the largest part of the brain. There are four lobes in each half of the cerebrum: frontal, temporal, parietal, and occipital

Magnetic Resonance Imaging (MRI): a scan that uses magnets to take pictures of the inside of the body and the brain

Magnetic Resonance Spectroscopy (MRS): a scan that gives information about the natural chemicals in the brain



Magnetoencephalography (MEG): a test that measures brain activity and helps “track down” the areas where seizures start and can also show what different parts of the brain do

Meningitis: an infection of the layers that cover the brain; a spinal tap (lumbar puncture) may show if the infection is caused by bacteria or a virus

Migraine: a throbbing headache that is often greater on one side and worse with bright light or loud noises, before a migraine the person might have a warning (an “aura”), during a migraine the person may feel sick to their stomach; in rare cases, weakness, language problems, or confusion may also be a problem during the headache

Myoclonic jerk: brief muscle jerk; may involve muscles on one or both sides of the body; most people have these while sleeping or falling asleep, and they are only a problem if they happen at other times

Neurologist: a doctor who has extra training in treating problems of the nervous system such as epilepsy, multiple sclerosis, or Parkinson's disease

Neuron: a single nerve cell; neurons are the building blocks of the nervous system; for example, the brain is made up of billions of neurons

Non-epileptic event (NEE): an episode that looks like an epileptic seizure but does not result from abnormal brain electrical activity; these may be caused by psychological or emotional trauma, since they are not actually seizures they usually do not respond to seizure medicine and should be treated with counseling and cognitive behavior therapy (CBT)

Occipital: the back part of the brain; needed for vision

Parietal lobe: the top part of the brain; allows a person to understand what he or she is touching, tasting, smelling, as well as pain and temperature

Partial seizure: a seizure that starts in one part of the brain

Petit mal: older term for absence seizure; often used incorrectly to refer to any seizure that is not a convulsion

Photic stimulation: to flash strobe lights in the eyes (which may be closed) of a person; used during the EEG to detect photosensitive epilepsy

Photosensitive epilepsy: a type of epilepsy where certain lights can provoke seizures

Positron emission tomography (PET): a scan to assess the seizure focus by looking at the brain metabolism measures activity in the brain to try to see where the seizures are coming from

Postictal: refers to the period of time after a seizure; for example, if someone does not seem like themselves just after a seizure it is called a “postictal change”

Psychogenic seizure (AKA “pseudoseizure”): an outdated name for non-epileptic event

Refractory: a condition that does not respond easily to treatment

Responsive Neuro Stimulations: a small microprocessor in a thin, flat, metal shell is implanted in the skull and attached via one or two wire leads to strip or depth electrodes. The implanted device continuously records the cortical activity of the brain and that information is stored on the microprocessor. When a patient experiences a seizure, he or she is asked to hold a special magnet near the implanted device, which marks the seizure’s occurrence.

By analyzing the recorded data, the physician can identify the specific electronic signature of the patient’s seizure and customize the timing and intensity of the neurostimulation delivered via the device. Once programmed, the device monitors for that electronic signature and delivers the prescribed electrical charge needed to disrupt it and prevent the seizure. Adjustments can be made during office visits to fine tune the timing and intensity of the neurostimulation.

Rolandic Epilepsy: an epilepsy syndrome of childhood, this is diagnosed by EEG, and in many cases is easily controlled with medication; it is called “Benign Rolandic Epilepsy,” because the majority of children with this type of epilepsy will outgrow it by the late teen years

Seizure: a change in behavior, feelings, or movement that is caused by repeating, abnormal electrical discharges from brain cells

Seizure threshold: minimal conditions that produce a seizure; in other words, the lower a person’s seizure threshold, the more likely they are to have a seizure

Sharp wave: a pattern on EEGs that may be caused by epilepsy; some sharp waves are “benign” and are not related to seizures

Simple partial seizure: an epileptic seizure that involves only part of the brain and does not change consciousness

Single photon emission computed tomography (SPECT): a test that uses a special dye to measure blood flow in the brain; the dye must be injected as soon as a seizure starts, so this test is done in the hospital, a separate injection is given on a different day when the person is not having a seizure, so the results of the two tests can be compared

Sleep Myoclonus: non-epileptic jerking motions that may happen when asleep or falling asleep, these jerks are normal and are also called hypnagogic jerks, myoclonus is only abnormal if it happens while waking up or when wide awake

Spike: an EEG pattern that can be related to seizures; “benign” spikes are not associated with seizures

Status epilepticus: a prolonged seizure (usually defined as lasting longer than 30 minutes) or a series of repeated seizures; a continuous state of seizure activity; may occur on almost any seizure type

Stereo-EEG (SEEG): stereoelectroencephalography (SEEG) is a minimally invasive surgical procedure used to identify areas of the brain where epileptic seizures begin in a three dimensional (3D) space. MUSC Health is one of only a handful of centers in the U.S. who offer this procedure.

Sturge – Weber syndrome: a disorder of blood vessels in the skin, eyes, and brain; brain involvement may cause seizures

Symptomatic Epilepsy: referring to a disorder with an identifiable cause; for example, severe head trauma can cause symptomatic epilepsy

Syncope: fainting

Temporal lobe seizure: a simple or complex partial seizure that starts in the temporal lobe of the brain

Thalamus: this is a deep brain structure that sends sensory and motor impulses between the rest of the brain and the body

Therapeutic blood level: the amount of drug in the blood that controls seizures without troublesome side effects in most people

Tic: repeated involuntary contractions of muscles; example: rapid head jerks or eye blinks common in Tourette's syndrome; tics may be under partial voluntary control, and are not epileptic

Todd's paralysis: weakness for a short amount of time after a seizure; can refer to several temporary problems after seizures, such as short term loss of vision, feeling, or speech

Tonic seizure: a seizure that causes stiffening; the seizure involves muscles on both sides of body and all/most of the brain

Tonic-clonic seizure: a convulsion (loss of consciousness, falling, stiffening, and jerking; electrical discharges involves all or most of brain); this is another name for a "grand mal"

Trauma: an injury or wound caused by outside force or violence

Tuberous sclerosis (TS): disease where benign tumors may affect the brain, eyes, skin, and other body parts; some people with this disease have mental retardation and seizures; this disease is always passed on to all children the person may have

Vagus nerve stimulator (VNS): a device that looks like a pacemaker, it is placed in a person's chest and has a wire that connects to a nerve (the vagus nerve) so signals can be sent to the brain, these signals can help prevent and treat seizures

Video-EEG monitoring: when a person's brainwaves are recorded by an EEG machine at the same time the way they look (and what they are doing) is recorded on video, this is the best way to learn about seizures and where they come from in the brain

Wada: a procedure that is performed to identify which side of your brain has language and memory function

West's syndrome: a disorder with infantile spasms, mental retardation, and certain EEG pattern that begins before 1 year of age

Sources

MUSHealth.org/epilepsy

MUSHealth.org/neurosciences/services/epilepsy/resources

Useful Resources

Epilepsy Foundation www.epilepsyfoundation.org

Epilepsy Advocate www.epilepsyadvocate.com

South Carolina Advocates for Epilepsy (SAFE) www.scepilepsy.org

