

Epilepsy Center

The first step in our evaluation at the Epilepsy Center is making an accurate diagnosis. That may sound strange, but there are other conditions that mimic epilepsy and more than 30 different types of epilepsy. Each one responds differently to treatment and a mistaken diagnosis is one reason why an epilepsy treatment may not be working. You can see how important it is that you receive the right diagnosis and treatment for your particular type of epilepsy.

What is Electroencephalography (EEG)

An EEG is used to record your electrical or brain wave activity. In epilepsy, the electrical activity of the brain is disturbed and the disturbance can often be detected by EEG.

The pattern of brain wave activity may help in diagnosing seizure type. In patients with partial epilepsy, the EEG may help physicians pinpoint the area of seizure onset.

This recording of your brain waves is made by attaching small disc electrodes to measured locations on your head. The electrodes are connected to a recording device called an electroencephalograph. The result is a digital recording of your brain waves that provides the critical information about the nature and location of any abnormalities. For patients with medication-resistant seizures, prolonged recordings in the highly specialized Epilepsy Monitoring Unit (EMU) may be needed.

How to prepare for an EEG test

Adults should stay up as late as possible and get up early before the test. Relative sleep deprivation the night before the test will help you sleep during the EEG and make the information we obtain as useful as possible.

Do not eat or drink any caffeinated food or beverages before your EEG. To ensure proper contact of the electrodes with your scalp, you should have clean hair free from any added conditioners or styling products. Because you may be sleepy after this test, you must be accompanied by someone who can drive you home.



What to expect during an EEG test

There is no pain during an EEG test. You will be asked to lie on your back on a bed or table with your eyes closed. The EEG technologist will attach 16 to 25 electrodes to different places on your head, using glue to hold them in place. The electrodes are hooked by wires to a computer that records the electrical activity inside the brain.

You will lie still with your eyes closed during the recording. We ask that you do not talk to the technologist unless you need to. The recording may be stopped to allow you to stretch and reposition yourself. The technologist may ask you to do different things during the test to record what activity your brain does at that time.

You may be asked to:

- Breathe deeply and rapidly (hyperventilate) –
- Look at a bright, flashing light called a strobe. This is called photic stimulation.
- Go to sleep. If you cannot fall asleep, you may be given a sedative. If an EEG is being done to check a sleep problem, an all-night recording of your brain's electrical activity may be done.

Routine EEGs take approximately 90 minutes to record and the appointment generally should take less than two hours. Reports are read and interpreted by board-eligible or board-certified neurophysiologists and are available within 24 hours. After the test, you will be able to return to normal activities.

Epilepsy Monitoring Unit (EMU)

The Epilepsy Center has a six-bed EMU dedicated exclusively to adults along with a five-bed pediatric EMU. These units provide 24/7 inpatient EEG-video monitoring that allow us to classify seizures, quantify seizures, evaluate seizure precipitants, test new antiepileptic drug therapy and localize brain origin(s) of seizure for epilepsy surgery.

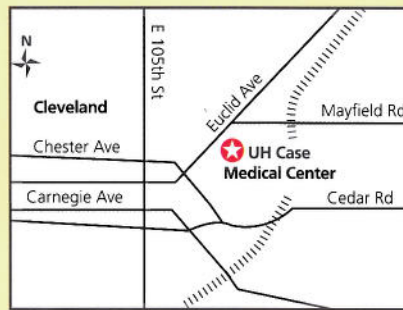
When the diagnosis is uncertain, monitoring may also be used to confirm or rule out epilepsy. Continuous monitoring helps to identify the focus and type of the seizure. Inpatient EEG-video monitoring has been shown to detect previously undiagnosed seizures in up to 20 percent of patients.

The average hospital stay in the EEG monitoring unit is five to seven days. Patients are typically monitored long enough to record at least three seizures. During the hospitalization antiepileptic medications are usually either decreased or completely withdrawn in an attempt to facilitate the occurrence of seizures.

EEG testing is offered at:

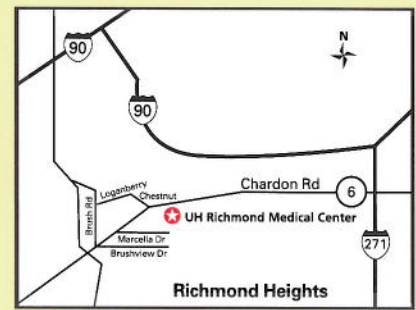
UH Case Medical Center

11100 Euclid Avenue
Cleveland, OH 44106



UH Richmond Medical Center

27100 Chardon Rd.
Richmond Heights, OH 4414



UH Bedford Medical Center

44 Blaine Ave.
Bedford, OH 44146



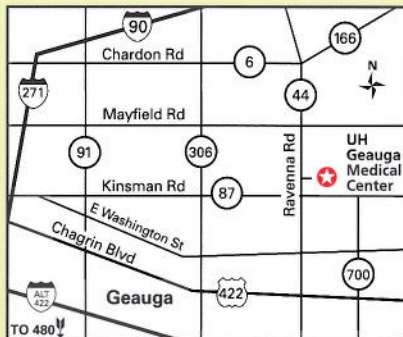
UH Chagrin Highlands Health Center

3909 Orange Place
Orange Village, OH 44122



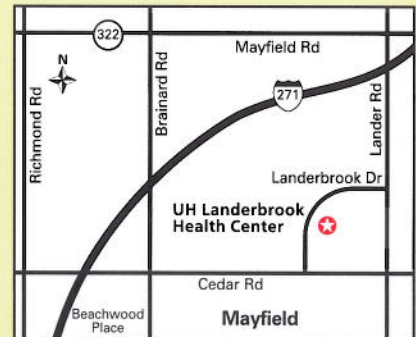
UH Geauga Medical Center

13207 Ravenna Rd.
Chardon, OH 44024



UH Landerbrook Health Center

5850 Landerbrook Dr.
Mayfield Heights, OH 44124



EMU units are located at:

UH Case Medical Center

11100 Euclid Avenue
Cleveland, OH 44106

**UH Rainbow
Babies & Children's Hospital**

11100 Euclid Avenue
Cleveland, OH 44106

To schedule an outpatient EEG or to request inpatient EEG-video monitoring please call 216-844-3199.

UHhospitals.org/neuro