Ambulatory Video-EEG Monitoring

Diagnostic EEG testing can also be done on an ambulatory basis. Patients come to St. Charles for the ambulatory EEG “set-up” and then are free to return home and go to work during the testing process. The process takes from one to three days.

During the set-up, our highly skilled technologist will place twenty-four contacts on the head using a conductive paste and special adhesive.

Contacts pick up tiny electrical discharges produced by activity in the nerve cells of the brain. Once set-up is complete, the head is wrapped with gauze bandage to hold the electrodes. This process is completely safe and painless. Patients are provided with instructions for use during the test. The EEG will be reviewed by an epilepsy specialist and the referring physician will receive a report.
Core Components:
- Ambulatory video-EEG monitoring
- Electrocorticography
- Epilepsy support group
- Epilepsy surgery
- Inpatient video-EEG monitoring
- Neuropsychological Evaluation
- Outpatient and inpatient consultations
- Responsive neurostimulation programming center
- Vagal Nerve Stimulator
- Surgical Implants
- Wada testing

Suffolk County’s only NAEC level 4 accredited Epilepsy Center.

Our highly trained staff includes specialized physicians, neuropsychologists, technicians, nurses, social workers, and administrators dedicated to the diagnosis, prevention, and treatment of epilepsy using a team approach.

Diagnostic Services

Inpatient Monitoring
The inpatient epilepsy service is dedicated entirely to the diagnosis and treatment of seizures. Computer-enhanced video-EEG monitoring is used to capture episodes that might be seizures or one of the imitators of epilepsy. The unit admits both adults and children. This type of monitoring can diagnose epilepsy and also determine whether it is in a surgically accessible area of the brain.

Inpatient video-EEG monitoring is used for five primary purposes:

1. To diagnose whether a condition is epilepsy or one of its imitators.
2. To determine what type of seizures patients are having, to guide therapy.
3. To determine whether patients are having more seizures than recognized, in order to explain confusion or other symptoms.
4. To localize where seizures come from in the brain (the seizure “focus”) as part of a surgical evaluation.
5. Rapid medication adjustment in a supervised environment.

Inpatient video-EEG monitoring is a continuous EEG along with ongoing video of the patient. Patients can be in the hospital for monitoring from one day up to more than two weeks. Seizure medications may be tapered or halted while in the hospital in order to provoke seizures for analysis while under highly controlled conditions.

While in the monitoring unit, patients can reside in their hospital bed or sit in a chair as well as walk around the room. Most patients can also use an exercise bicycle. The EEG cable reaches into the bathroom. Visitors are permitted and encouraged, including an overnight guest. Patients are recommended to wear clothing that is comfortable and can be removed without pulling over the head and to bring reading material and music for listening.

During monitoring, we perform a variety of evaluations of the patient’s overall well being. If episodes do not occur spontaneously, they may be provoked with medication reduction, sleep deprivation, exercise, flashing lights, hyperventilation (over-breathing) or hypnosis.