One in 26 people will have a seizure and one or two out of 100 have epilepsy. That’s more than two million people in the United States alone. Seizures affect people of all ages, and can occur even in people who have always been healthy and never had a brain injury.
Having a seizure or seeing a loved one have one can be very scary. Sometimes during a seizure, people become unaware and have full body shaking, but there are many kinds of seizures and the symptoms might be more subtle.

Seizures are caused by surges in electrical activity in the brain that causes brain cells to send abnormal signals to each other. These signals can spin out of control and lead to changes in the behavior of the person’s body and mind. Seizures can be caused by a range of health issues and may occur without warning.

**Seizures and epilepsy**

Epilepsy is a neurological condition diagnosed after a person has two or more seizures that are not caused by another condition. It is a chronic condition that can impact quality of life for the patient and their entire family. People with uncontrolled seizures can often not drive, swim, climb ladders or do other common activities.

Because there are many causes of seizures and many types of epilepsy, the first step in getting control is making the right diagnosis. Epilepsy specialists at the Ayer Neuroscience Institute are trained to help diagnose and manage your seizures, recommending the best available treatments tailored to your individual needs.

**Treatment options to eliminate seizures and maximize your quality of life include:**
- Medications
- Changes in diet
- Surgical interventions

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**Our programs**

In the Ayer Neuroscience Institute Epilepsy Center, we understand that every person with epilepsy is unique and we have created a variety of programs to help meet your individual needs.

- **First Seizure Clinic** is how many patients enter Epilepsy Clinic. After the initial seizure has occurred, our highly-trained specialists offer rapid, accurate diagnosis, usually within two weeks of referral. We see patients in the Hartford Hospital Medical Office Building. For more information or an appointment, call 860.972.3621, or fax referral to 860.545.5003 and specify “First Seizure Clinic”.

- **Refractory Epilepsy.** When seizures are not controlled after trying two or three different medications, the epilepsy is called refractory. The American Academy of Neurology recommends people with refractory epilepsy are seen at a facility like the Ayer Neuroscience Institute Epilepsy Center where specialists can recommend individualized treatment options for controlling seizures and improving the other issues that come with epilepsy.

- **Epilepsy Monitoring Unit (EMU)** is a specialized unit at Hartford Hospital where we can record EEG during seizures to make the most precise diagnosis. During a hospital stay that lasts about a week, patients are under continuous EEG monitoring to record your brainwaves day and night. We use information gathered during seizures to make an accurate diagnosis and recommend treatment options most likely to be successful.

  The EMU is overseen by a neurologist specializing in epilepsy and staffed by a physician assistant, nurses and EEG technologists with experience caring for people with seizures. While the primary goal is to keep you safe during seizures, we have created as pleasant a hospital experience as possible with private rooms, room for your loved ones to stay overnight with you, and extras like a refrigerator, TV and wireless network.

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**Testing and treatment options**

Our Epilepsy Center provides a wide range of diagnostic and treatment options for even the most complex forms of epilepsy. You will receive individualized, coordinated care that addresses your seizures and any other resulting issues.

**As our patient, you will have access to:**
- Routine and ambulatory EEG
- Inpatient continuous video-EEG seizure monitoring
- 3T magnetic resonance imaging (MRI)
- Neuropsychological (memory) testing
- Mental health assessment and therapy
- Social worker
- Positron emission tomography (PET)
- Single photon emission computed tomography (SPECT)
- Wada test of language and memory
- Intracranial EEG monitoring
- Surgical treatments such as:
  - Laser ablation
  - Brain surgery
  - Responsive Neurostimulation (NeuroPace)
  - Vagus nerve stimulation
  - Deep brain stimulation for epilepsy