



Epilepsy and Seizure Disorders



Epilepsy can happen to anyone. It is experienced by both men and woman equally from any cultural background at any age (Pruthi, 2011). Having a single seizure does not mean a person has epilepsy (National Institute of Neurologic Disorders and Strokes (NINDS), 2020). According to the Centers for Disease Control and Prevention (CDC), “active” epilepsy is defined as having a diagnosis of epilepsy or seizure disorder **and** taking medications for control **or** having one or more seizures in the past year. A seizure is abnormal electrical activity which disrupts the normal activity in the brain. There are many different types of seizures which can make them difficult to recognize sometimes. Symptoms can be different depending on the type of seizure a person is having. A person will tend to have the same seizure symptoms with each episode (Pruthi, 2011). Seizures are classified as either focal or generalized depending on where the abnormal brain (neurological) activity begins (CDC, 2018).

Focal Seizures

There are two types of focal seizures. Focal seizures can be confused with other neurological disorders and require a thorough examination to be diagnosed.

- 1) *Focal seizures without a loss of consciousness* can be an abrupt change in emotions and or effect the way things sound, look or smell. This type of seizure may include involuntary jerking of a body part, feelings of tingling or numbness in the body and or dizziness (Pruthi, 2011).
- 2) *Focal seizures with impaired awareness* involves a loss of consciousness or responsiveness to the environment. It could be staring off into space, repetitive movements such as chewing, twitching, hand rubbing, and or walking in circles (Pruthi, 2011).

Generalized Seizures

There are six different types of generalized seizures. Generalized seizures involve all areas of the brain (CDC, 2018).

- 1) *Absence seizures*, previously known as petit mal, include staring off into space, eye blinking or lip smacking. They often happen in clusters, one right after another, and may involve a short loss of consciousness.
- 2) *Tonic seizures* involve muscle stiffening.
- 3) *Atonic seizures*, also known as drop seizures, are a loss of muscle control causing a person to collapse down.
- 4) *Clonic seizures* involve repeated muscle jerking movements typically of the face, neck and arms.
- 5) *Myoclonic seizures* are sudden brief jerking or twitching movements typically in the arms and legs.
- 6) *Tonic-clonic seizures*, previously known as grand mal, include a loss of consciousness, muscle stiffening and shaking. May also include biting the tongue and a loss of bladder control (CDC, 2018).

Seizures can also be caused by a high fever. Febrile seizures are most commonly associated with fevers 102° F or greater. The incidence of a febrile seizure does not increase the risk of developing epilepsy. Febrile seizures can be caused by any illness in which a fever is common such as a cold, influenza, or an ear infection (CDC, 2015).

Causes

The cause for about half of all seizures remains unknown. Some types of epilepsy are genetic. Researchers have identified specific epilepsy genes in some families (Pruthi, 2011). Head trauma can induce epilepsy. Certain brain conditions, such as brain tumors, and stroke can bring on seizures. Infectious diseases, like meningitis, AIDS and viral encephalitis can also cause epilepsy. Developmental disorders, like autism and neurofibromatosis have been related to epilepsy. Before birth an infant’s brain can be affected by a mother’s poor nutrition or oxygen deficiencies resulting in epilepsy or cerebral palsy (Pruthi, 2011) (CDC, 2018).

App of the Month



Seizure Tracker is quick and easy to set up on your smartphone and can be used immediately after download. The app is designed to help you manage epilepsy by logging seizures and keeping records of the length, type, potential triggers, and a description of associated symptoms. (*App of the Month is not endorsed by DBHDS OIH. User accepts full responsibility for use.*)



Common Seizure Triggers

- Missed medication doses.
- Lack of sleep.
- Stress and anxiety.
- Sickness or fever.
- Certain medications.
- Photosensitivity (flashing lights).
- Excessive noise.
- Hormonal changes (menstrual cycle).
- Alcohol or drug use.
- Herbal supplements.
- Low blood sugar (NINDS, 2020).

Importance of a Strict Medication Regimen

Seizure medication administration should be consistent and as prescribed to maintain therapeutic levels. Caregivers should be careful to follow any specific medication instructions, such as “take with food” or “take at bedtime”. Notify prescribing physician of any missed doses. Be aware of all medication side effects and adverse reactions. Recognize and document any observed or suspected side effects then report them to the prescribing physician immediately. The physician may order follow-up blood tests. The physician might also request a seizure log be maintained to track the effectiveness of medications (CDC, 2018).

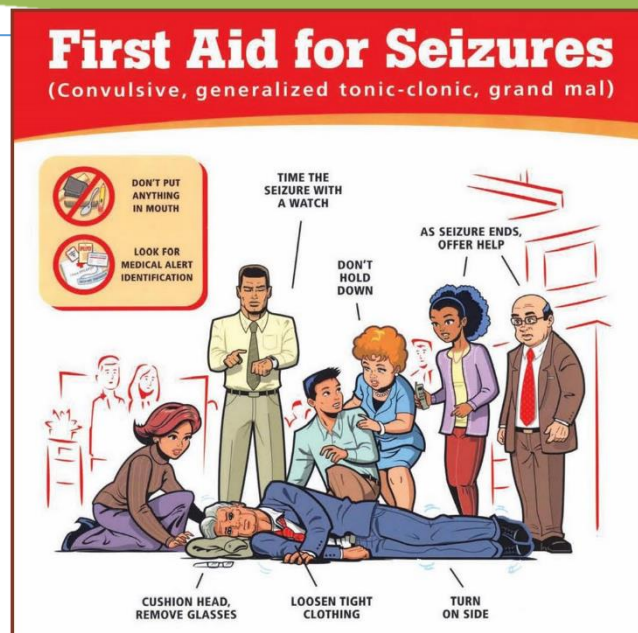
Educational Resources

- MINDSET: A clinical tool to help with decision making. <https://managingepilepsywell.org/mindset>
- PACES: A program designed to help manage epilepsy. <https://managingepilepsywell.org/paces>
- TIME: Targeted Self-Management for Epilepsy and Mental Illness. <https://managingepilepsywell.org/time>



References

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- Pruthi, S. (June 09 2011). Epilepsy: Symptoms & causes. Mayo Clinic. Mayo Foundation for Medical Education and Research. Retrieved from <https://www.mayoclinic.org/diseases-conditions/epilepsy/symptoms-causes/svc-20350093>
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Seizures do not always require emergency medical attention. However, call 911 if it is the person’s first seizure, a person is having trouble breathing or recovering, the person is having one seizure right after another, the seizure lasts longer than 5 minutes, the person is injured, or if the person has other health conditions. Remember to always follow the action steps outlined in your First/Aid CPR training.

Training Opportunities in March

The Oral Health for DSP (Train the Trainer program) & MRE Training

Thursday, March 12, 2020

SW Virginia Higher Education Center One
Partnership Circle, Room 222 Abingdon, VA.

<https://www.surveymonkey.com/r/9LZ9TKD>

The Special Needs Dentistry Training for Dental Professionals. Nurses are welcome to attend.

11 FREE Contact units offered.

Friday, March 13 - Saturday, March 14, 2020

SW Virginia Higher Education Center One
Partnership Circle, Room 222 Abingdon, VA.