

Expert Alert

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Mayo Clinic Health System neurologist explains epilepsy during National Epilepsy Awareness Month

MANKATO, Minn. — Many people believe that having a seizure involves convulsions, shaking and essentially passing out for a period of time. And others think that if you have a seizure, you must be epileptic. Both assumptions are incorrect. There are various causes of a seizure, with epilepsy being one. Epilepsy is characterized as unprovoked, recurrent seizures and is a disorder of the nervous system where your brain's nerve cell activity is disrupted, resulting in a seizure.

The lifetime risk of developing epilepsy is just under 3 percent, and lifetime risk of having a seizure, from any cause, is about 9 percent. According to the Centers for Disease Control and Prevention (CDC), approximately 150,000 new epilepsy diagnoses occur annually in the United States.

Andrew Reeves, M.D., Mayo Clinic Health System neurologist, helps explain epilepsy and seizures during National Epilepsy Awareness Month.

1. Symptoms and types of seizures.

Categorized as a spectrum disorder because of the wide range of causes and effects, epilepsy impacts people differently. Some common symptoms of a seizure include:

- Uncontrolled jerking movements of the arms and legs
- Short-term confusion
- Psychological symptoms
- Loss of awareness
- Becoming unconscious

Though these are general symptoms, physicians typically separate seizures into two categories, focal or generalized. Both result from abnormal brain activity.

- **Focal seizures.** Also known as a partial seizure, this is a seizure that is focused in one area of the brain. There are two types of focal seizures:
 - **Simple.** This type can alter emotions and other senses but does not cause loss of consciousness.
 - **Dyscognitive.** Often altering consciousness or awareness, dyscognitive seizures can cause staring spells and unnecessary movements, such as chewing, swallowing or walking in circles.

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- **Generalized seizures.** Where focal seizures are in one area of the brain, generalized seizures indicate that all areas of the brain are involved. There are six types of generalized seizures:
 - **Absence.** This type may cause brief loss of awareness and usually involve staring and mild, uncontrolled body movements.
 - **Tonic.** These seizures cause your muscles to stiffen, which can make you fall to the ground.
 - **Clonic.** A clonic seizure is characterized by jerking muscles.
 - **Myoclonic.** This type of generalized seizure typically causes your arms and legs to twitch.
 - **Atonic.** People also refer to atonic seizures as “drop” seizures. They often cause people to collapse because of a loss of muscle control.
 - **Tonic-clonic.** A tonic-clonic seizure causes loss of consciousness, stiffening of the body and convulsions. This type of seizure is also called a “grand mal” seizure.

“There are many types of seizures, some of which are hard to detect. But it’s important to note that not everything that looks like a seizure is actually a seizure,” says Dr. Reeves. “For example, a convulsive syncope refers to a situation when a person faints, then has jerking or shaking movements resembling a seizure.”

2. Causes.

Roughly half of people with epilepsy have no detectable root cause. For others, epilepsy can occur because of one of the following reasons:

- Family history
- Head injury
- Brain tumor or stroke
- Disease
- Developmental disorders, such as autism

3. Possible complications.

Because epilepsy causes seizures at unpredictable times, there are a number of possible complications you should be aware of. Some of these complications include car accidents, falls and emotional issues.

4. What you can do.

“While there is no cure for epilepsy, there are medications and treatments that help manage your symptoms. Speak with your health care provider about what works best for your course of treatment,” adds Dr. Reeves.

Dr. Reeves says there are a few things that may prompt a seizure in someone with epilepsy. You should:

- Avoid nicotine
- Limit alcohol consumption, if at all
- Get adequate sleep
- Decrease daily stressors

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