

# Epilepsy: Causes and risk factors

November 21 2022, by Laurel Kelly

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November is National Epilepsy Awareness Month, which makes this a good time to learn about the causes of and risk factors for epilepsy.

Epilepsy is a [neurological disorder](#) that affects about 3.4 million people

in the U.S., according to the Centers for Disease Control and Prevention. Epilepsy affects both males and females of all races, ethnic backgrounds and ages. Anyone can develop [epilepsy](#).

With epilepsy, [brain activity](#) becomes abnormal, causing seizures or periods of unusual behavior, unusual sensations and sometimes loss of awareness. Seizures can affect any process your brain coordinates. Signs and symptoms of seizures can include temporary confusion, staring, uncontrollable jerking movements of the limbs, and loss of consciousness or awareness.

Seizure symptoms can vary widely, depending on the type of seizure. Some people with epilepsy simply stare blankly for a few seconds during a seizure, while others repeatedly twitch their arms or legs. In most cases, a person with epilepsy will tend to have the same type of seizure each time, so the symptoms will be similar from episode to episode.

## Causes

Epilepsy has no identifiable cause in about half the people with the condition. In the other half, the condition may be traced to various factors, including:

- **Genetic influence:** Some types of epilepsy run in families. In these cases, it's likely that there's a genetic influence. Researchers have linked some types of epilepsy to [specific genes](#), but for most people, genes are only part of the cause of epilepsy. Certain genes may make a person more sensitive to environmental conditions that trigger seizures.
- **Head trauma:** Head trauma because of a car accident or other [traumatic injury](#) can cause epilepsy.
- **Brain abnormalities:** Abnormalities in the brain, including brain tumors or [vascular malformations](#) such as arteriovenous

malformations and cavernous malformations, can cause epilepsy. Stroke is a leading cause of epilepsy in adults older than 35.

- Infections: Meningitis, HIV, viral encephalitis and some [parasitic infections](#) can cause epilepsy.
- Prenatal injury: Before birth, babies are sensitive to brain damage that could be caused by several factors, such as an infection in the mother, poor nutrition or oxygen deficiencies. This brain damage can result in epilepsy.
- Developmental disorders: Epilepsy can sometimes be associated with developmental disorders, such as autism.

## Risk factors

Certain factors may increase your risk of epilepsy, including:

- Age: The onset of epilepsy is most common in children and older adults, but the condition can occur at any age.
- Family history: If you have a family history of epilepsy, you may be at an increased risk of developing a seizure disorder.
- Head injuries: Head injuries are responsible for some cases of epilepsy. You can reduce your risk by wearing a seat belt while riding in a car and by wearing a helmet while bicycling, skiing, riding a motorcycle or engaging in other activities with a high risk of head injury.
- Stroke and other [vascular diseases](#): Stroke and other blood vessel diseases can lead to brain damage that may trigger epilepsy. You can take a steps to reduce your risk of these diseases, including limiting your intake of alcohol, avoiding cigarettes, eating a healthy diet and exercising regularly.
- Dementia: Dementia can increase the risk of epilepsy in older adults.
- Brain infections: Infections such as meningitis, which causes inflammation in your brain or spinal cord, can increase your risk

of epilepsy.

- **Seizures in childhood:** High fevers in childhood can sometimes be associated with seizures. Children who have seizures due to high fevers generally will not develop epilepsy. The risk of epilepsy increases if a child has a long fever-associated seizure, another nervous system condition or a family history of epilepsy.

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Citation: Epilepsy: Causes and risk factors (2022, November 21) retrieved 24 April 2024 from <https://medicalxpress.com/news/2022-11-epilepsy-factors.html>

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