Epilepsy is a brain disorder that leads to recurring seizures. Rosemarie Kobau is a researcher with CDC’s National Center for Chronic Disease Prevention and Health Promotion. She’s joining us today to discuss the signs of and treatment for epilepsy. Welcome to the show, Rosemarie.

Rosemarie Kobau: Thank you, Kathleen. I’m happy to be here.

Dr. Dooling: Rosemarie, what is epilepsy?

Rosemarie Kobau: Epilepsy is a disorder of the brain that causes a person to have recurrent seizures. The brain is made up of billions of nerve cells that talk with each other using tiny electrical signals, and a seizure is a sudden burst of abnormal electrical activity in the brain that causes temporary changes in a person’s behavior, their awareness, or in their sensations that can last several seconds to several minutes. Epilepsy can affect a person’s ability to engage in some daily activities, like working, driving, and going to school.

Dr. Dooling: What are the signs of a seizure?

Rosemarie Kobau: Some seizures can make you lose consciousness and fall to the ground and jerk or shake; other seizures might make you feel strange, see or hear things that aren’t there, or they might make you move in ways that you can’t control; or a seizure might cause you to just stare and not be aware of what’s going on around you. There are over 30 different types of seizures and seizure symptoms depend on where the seizure is coming from in the brain.

Dr. Dooling: What causes this condition?

Rosemarie Kobau: Anything that harms the brain can cause epilepsy. Some known causes for epilepsy include stroke and heart disease; brain tumor; traumatic brain injury, or head injury; depression; some infections; and there’s a genetic predisposition—some people are just born with epilepsy. But for the majority of people with epilepsy, there is no known cause and researchers are still studying possible risk factors.

Dr. Dooling: How common is it in the U.S.?
About 3.4 million Americans have epilepsy, with most of those cases occurring among adults. Epilepsy is more common in children and older adults but anyone is at risk.

How is epilepsy treated?

There are many ways to treat epilepsy, but epilepsy is most often treated with medicines designed to stop seizures. The majority of people can control their seizures with medicines alone, but sometimes the medicines don’t work, so brain surgery is another effective treatment option for some people, especially for those with uncontrolled seizures. Other treatment options include medical devices, and for some people, a special diet is an option if medications fail to control seizures.

Can it be cured?

At this time, there’s no single cure for epilepsy, especially because there are many types of epilepsies, but it’s possible in some children that, as they grow, their seizures stop. Women who have a type of epilepsy associated with their menstrual cycle can also stop having seizures when they reach menopause. So, while there is no single cure, there is hope and there are effective treatments that can stop seizures from happening. It’s important, if you have epilepsy, to talk about these different treatment options with your doctor, especially if you continue to experience seizures.

What should we do if someone is having a seizure?

Seizure first aid, in most cases, is about providing care and comfort—just keeping the person safe until the seizure ends on its own. It’s very important to just stay calm. Most seizures only last a few minutes. Always stay with the person until the seizure is over, pay attention to the length of time of the seizure—look at your watch and just time the seizure. If the seizure lasts longer than about five minutes, or it lasts longer than the person’s typical seizures, call for help. Again, it’s important to make the person as comfortable as possible, so for example, support the person’s head to prevent the head from hitting the floor, keep onlookers away, do not forcibly hold the person down, make sure that the person’s breathing is okay, and it’s important to keep in mind that most seizures are not medical emergencies. One would call for emergency help if a seizure lasts five minutes or longer, if a seizure occurs right after another seizure without the person regaining consciousness, if you see that breathing is difficult for the person, if the seizure occurs in water, or if the person injured themselves—those are times when we call for emergency help, and it’s always important to just be sensitive and supportive, reassure the person that they’re safe as they come out of the seizure, and offer to get them home if they need help.

Where can listeners get more information about epilepsy?

Listeners can learn more about epilepsy at cdc.gov/epilepsy.

Thanks, Rosemarie. I’ve been talking today with Rosemarie Kobau about signs of and ways to treat epilepsy.
If you think you’ve had a seizure, talk to your doctor as soon as possible. Early diagnosis is important in treating epilepsy.

Until next time, be well. This is Dr. Kathleen Dooling for A Cup of Health with CDC.

[Announcer] For the most accurate health information, visit www.cdc.gov or call 1-800-CDC-INFO.