

Chapter for Kids

CHILDHOOD SEIZURE e-BOOK

What Is This “Seizure” Thing, Anyway?

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Kids with seizures often ask, “What is a seizure, anyway? Am I normal? Am I going to be OK? It’s my life. I want to know.”

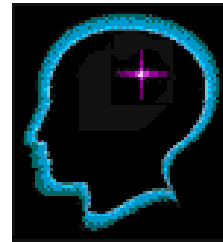
So, here’s what you need to know:

What is a seizure?

A typical brain like yours has about 10 billion (10,000,000,000) cells called “neurons.” These neurons are all bunched up side-by-side, and communicate with each other with electrical charges. Certain chemicals in your brain help put brakes on all of this electrical activity.



Human Brain



Brain cells communicate with electrical impulses

In a seizure, a “short circuit” occurs, during which the neurons keep firing. Since the neurons control your muscles, then the muscles keep firing. This stiffening or jerking of your muscles is what everyone sees and calls a seizure. Sometimes, your body might just go into a staring spell, but it’s due to the same kind of short circuit.



A seizure is a kind of electrical short circuit.

So, are there different kinds of seizures?




Yes.

Some kids have a warning before the seizure starts. That's called an "aura." The aura can be a twitching movement of one part of your body, a funny feeling in your stomach, a tingling feeling, funny vision or speech, or just about anything your brain is capable of doing. It's basically the actual beginning of a seizure. During an aura, the part of your brain that is not having the seizure is watching the part of your brain that is having it. These are called "partial seizures," meaning that they start in only part of the brain. Sometimes the seizure stays in only one part of the brain; and othertimes, the seizure may spread to other parts. If you have a special way that your seizure starts, make sure to tell your parents and doctors. That way, they can best help control your seizures.

Some kids have no warning before the seizure. Perhaps the aura was so brief that it couldn't be noticed. Or, perhaps, the seizure is the type that begins by immediately involving the whole brain. If the whole brain is having a short circuit, then there isn't any part of the brain awake enough to keep you properly awake. These are called "generalized" seizures, since they have generalized to the whole brain. During the generalized part of a seizure, we are not aware of what is happening to us. People around us may say that we were staring off into space like some zombie, or they may say that we fell to the ground and were totally "out of it" and shaking.

Sometimes, the seizure is just a quick jerk of our arms, and that's it. This type of seizure often happens in the morning. If you have this type of "myoclonic" seizure, tell your doctor.

Other things that can happen during a seizure:

-  Sometimes, we might bite our tongue. It may hurt a little, but usually isn't serious.
-  If we've drunk some liquids recently, then our bladder may cause us to "wet ourselves."
-  After a seizure, we may be sleepy or feel badly for a brief time.

What causes the seizure?

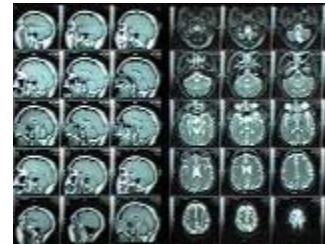
Do you want to see your parents get frustrated? Watch them when the doctor tells them that they usually can't find the cause of your seizures. Usually, in kids, seizures are just due to the chemicals in your brain having electrical short circuits. Sometimes it runs in families, but usually not. Only rarely would a child's seizures be due to something "bad." Don't worry. Your doctor has probably already checked.

The doctor may have ordered an electroencephalogram (an "EEG") or a Magnetic Resonance Imaging Scan (an "MRI"):



An EEG is a painless test.

During an EEG, thin wires are pasted onto your head, and the electrical activity of your brainwaves are recorded.



An MRI machine and its pictures.

An MRI is another painless test where magnet and radio waves are used to take a photograph of the inside of your head. It's noisy but interesting. All you have to do is stay still. Ask the people who take the pictures if you can see them.

What is "epilepsy?"

"Epilepsy" is just a fancy medical term for "multiple seizures." Don't worry: it's not contagious, and it has nothing to do with intelligence. It just means that the person has had more than one seizure.

Do lots of people have seizures?

Yes! About 1 out of 10 people will experience a seizure at some point during their life. About 1 out of 200 people have had more than one seizure, i.e., have "epilepsy." Since you probably have met many more than 200 people in your life, that probably means you know other people who have seizures also--just you didn't know it because they have normal lives.

So, you have plenty of company. If you go to a major league baseball stadium, there are probably 300 people in the stadium who have epilepsy. And you have plenty of good company, too. For example, Joan of Arc, Ludwig van Beethoven, Michelangelo and Julius Caesar all had seizures.



At a major league stadium, hundreds of people have a seizure disorder.

Will the seizure hurt me?

It is very unlikely that a seizure will cause you to seriously hurt yourself! You know, no one can every guarantee you much in life; but fortunately, it turns out that it is very unlikely to be hurt by a seizure. We don't expect it to cause you any kind of brain damage. After all, you've already had a seizure and you're OK, aren't you? What better proof could we offer?

Now, that's not to say that a seizure is exactly good for you, either! Many kids find it embarrassing (not that they need to be embarrassed), and it's occasionally possible to fall during a seizure and hurt yourself. So, it is important to take regularly any medication that your doctor might give you. [Of course I'd say that—I'm a doctor writing this!]

Will I be OK?

We expect only good things for you. Most kids outgrow their seizures, and can stop taking any anti-seizure medication after a few years. Your doctor will discuss this with your family.

People with seizures usually live totally normal lives. They get married, have kids, have jobs, and even have dogs if they want. A few jobs—like being a jet pilot—are probably not good ideas.

Are there any special things I can do to help myself?

Glad you asked. First and foremost, be actively involved in your seizure care. Take your medicine! Ask questions. Tell your parents and doctors about any problems or fears that you may have. It's your life.

You can get more information from books and online.

- 📖 Start at [The Epilepsy Foundation of America](#)'s website. They have a particularly good [Kids Korner](#) to read to and about children with seizures, as well as a [Teen](#) site.
- 📖 Also, read the chapter in this e-book on [Emotional and Social Issues](#).
- 📖 Dr. Chudler's awesome website [Neuroscience for Kids](#) has great information, too.

In addition, there are a few things you can do to keep yourself safe in case you have another seizure. *Your* doctor may have somewhat different suggestions

- 📖 If you have an aura, you'd want to call for help and get yourself into a safe position if possible (like sitting or even lying down).
- 📖 No climbing higher than about six feet (the height of an adult).
- 📖 No riding your bike around cars for a while.
- 📖 Always wear a bike helmet (whether you have seizures or not).
- 📖 An adult always needs to carefully supervise you around water.
- 📖 Use common sense.

Other than that, we try to let you live a totally normal life! You can play most all sports, have sleepover dates, and all that good stuff.

So, am I normal? Yes! If you still don't believe it, go back and read this chapter again. Good luck. And don't forget to keep asking questions!