

## EPILEPSY QUESTIONS

### How many people have epilepsy?

About 1 in 26 people will develop epilepsy in their lifetime ...that's over 200,000 people in Wisconsin alone. It's a hard number to pin down as many people don't like to talk about their condition. Some feel embarrassed or ashamed. More than 3 million Americans suffer from epilepsy.

### What is a seizure?

Think of it like this. Every day, your brain works by neurons firing tiny electrical impulses to each other.... Walk to the corner. Solve this puzzle. Listen to music. Hug your friend. Breathe. Talk.

But when your neurons start firing uncontrollably, or group together and head in the wrong direction, you get a seizure... a head drop, an eye blink, a woozy feeling, a shaking body, an arm that suddenly jerks. All of these could be seizures.

### Who has seizures?

Anyone. Some people are born with them, and it runs in their family. Others hurt their heads in accidents or in warfare and have a serious brain injury. Sometimes, a concussion that appears to heal may develop into seizures months or even years later. And for others...young adults, middle-agers and seniors... it just comes on and no one knows why.

Scientist Thomas Edison, gold medal winner Florence Griffith-Joiner, musician Prince and author Charles Dickens are just a few famous people who had seizures.

### So then, what is epilepsy?

We all have a certain threshold for seizures. If you

were stranded in the desert and became severely dehydrated, eventually under such harsh conditions you might have a seizure. But for some, this threshold is much lower. They can have a seizure for no known reason, or because a trigger, such as flickering lights, drinking alcohol or not getting enough sleep, sets it off. If you have more than two seizures, you are diagnosed with epilepsy.

### You can take medicine, right?

Yes. There are a lot of medicines for people diagnosed with epilepsy. And for many people, they work. But for 1/3 of the people, they don't work great, and another 1/3 of the people, they don't work at all.

### What else can be done to treat epilepsy?

Surgery can work on some types of seizures, but only if the doctors can pinpoint where the seizures are coming from. If doctors can find that spot, they may be able to remove it. For some people, this is a lifetime fix. For many others, surgery is not an option as the location where seizures start in the brain is impossible to find.

Another surgical option is called the Vagus Nerve Stimulator. A device is implanted in the chest wall and a tiny wire is threaded along the vagus nerve



up into the brain. Impulses are sent along the wire every several seconds. If successful, the VNS disrupts or prevents a seizure from occurring.

There is also a special high-fat, low-carbohydrate diet, called the Ketogenic Diet, which helps improve seizure control in some people. Scientists are not exactly sure why the diet works, but its use goes back to biblical times.

### **Can seizures harm the brain?**

Most seizures do not cause brain injury, and people with epilepsy live a completely normal life. However, seizures that last a long time, or that come frequently can hurt the brain and can cause someone to lose skills.

It is now believed that each time the neurons fire down a seizure path, the more worn down the path becomes, and the easier it is to have a seizure the next time.

### **Why are people afraid to talk about epilepsy?**

Unfortunately, history has not been kind to people with seizures. If we look way back in time, to B.C. days, epilepsy was seen as a curse from the gods. In the 1400s, women with seizures were believed to be witches. And it wasn't long ago that a diagnosis of epilepsy was an automatic ticket to an institution. Until 1990, with the passage of the Americans with Disabilities Act, some U.S. states had laws forbidding people with epilepsy to marry or become parents, and some states permitted sterilization.

### **Can you die from epilepsy?**

Approximately 50,000 deaths occur each year because of seizures themselves, or an accident involving a seizure such as drowning or car crash.

### **What research is being done?**

Although epilepsy affects more people than multiple sclerosis, cerebral palsy, muscular dystrophy and Parkinson's disease combined, epilepsy research receives less funding than any of these conditions.

Here at the University of Wisconsin-Madison, doctors and researchers are studying how seizures affect brain development and function. They are also trying to find out new ways to treat seizures, and perhaps cure them! One exciting research project is looking at how a simple sugar-like substance called 2-deoxyglucose can stop seizures in their tracks.

### **What can I do?**

If you have epilepsy, or if you know someone who does, talk about it. Give people information. The more people hear about it, the less strange and scary it will seem. The more awareness we create. The more research will be funded.

Have a Lily's Lemonade Stand in your office, neighborhood or school. By promoting epilepsy awareness, you spread the word and help raise money for cutting-edge epilepsy research at the UW-Madison. Feel free to use this fact sheet to teach people.

For more information on epilepsy visit:

[www.epilepsy.com](http://www.epilepsy.com)

[www.cureepilepsy.org](http://www.cureepilepsy.org)

[www.epilepsyfoundation.org](http://www.epilepsyfoundation.org)

