

BRAIN STORMS

In this first of a two-part feature, dog owners reveal how they cope with canine seizures.

By Matthew Schenker

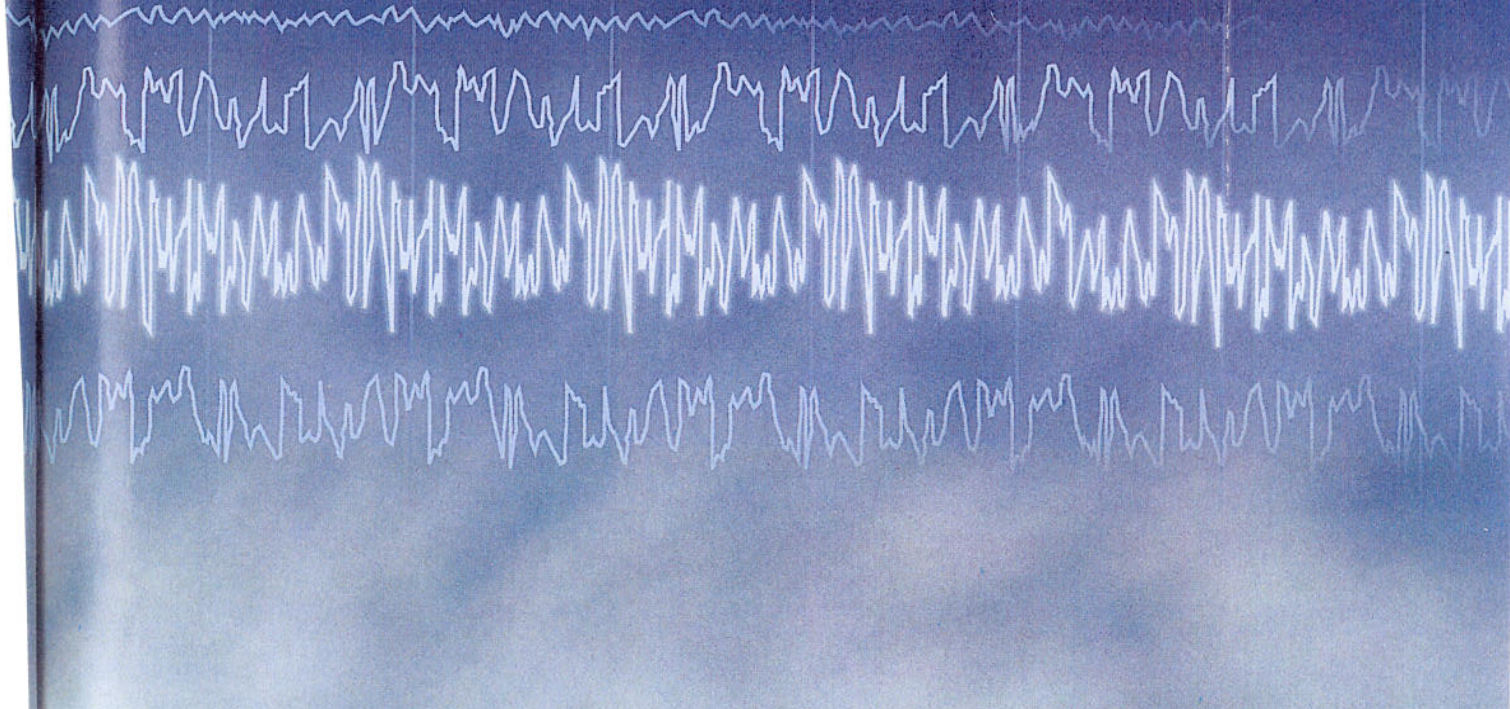
Anita Stolze will never forget that terrifying moment three years ago. Kruezer, her beautiful 15-month-old German Shepherd Dog, was walking toward her when, suddenly, his eyes widened, and, after five or six steps, his right front leg seemed to weaken and bend. Then he collapsed, his back arching, his front feet paddling the air.

Stolze had no idea what was going on, and she rushed Kruezer to the vet. There, she learned that her dog has something in common with such famous humans as Joan of Arc, Edgar Allan Poe, Lewis Carroll, Julius Caesar, Alexander the Great, and Napoleon.

Kruezer was diagnosed with epilepsy, and the vet prescribed a drug to treat it. But the medications did not stop his seizures.

This is not unusual because epilepsy is more than a single condition. Beverly Mains, DVM, a practicing veterinarian for 25 years, has treated many dogs with seizures, including her own Giant Schnauzer, Layla. "We can try to talk about general categories of seizures, but then there are subcategories. Then those are divided up, and people try to give each one a name. You can't just come into the vet and get an answer."

Stolze understands this all too well. She began a quest to



improve Kruezer's life, but she found no magic bullet. "I researched medicines and foods. I began cooking special meals for him. I'd keep going to the vet with information, and the vet told me I had to stop. I was just obsessed with it."

What Goes Wrong

In a healthy dog's brain, "excited" neurons are kept in balance by those that are "at rest." Dogs with seizures have too many simultaneously excited neurons, creating a flood of electrical currents that flash through the entire nervous system, resulting in the visible signs of seizures, as with Kruezer.

Seizures usually appear when the dog is between 12 and 36 months of age. They may be hereditary, but often there is no family history. The cause can be anything that will disrupt normal brain circuitry, from trauma to lead chips and insecticides.

Dennis O'Brien, DVM, Ph.D., is a clinical neurologist at the University of Missouri College of Veterinary Medicine and a leading canine-epilepsy researcher. He also runs a private veterinary clinic, where he often explains the confusing nature of the condition. "I tell my clients that what I can be sure of with epilepsy is that I can't be sure of anything."

When a dog has a seizure, the urgent need is to turn off the chain reaction in the nervous system with a drug, such as Valium. Once the dog is stable, the search for a cause begins.

Veterinarians cannot simply test for epilepsy. Instead, they go through a process of elimination, including screening for glucose tolerance, thyroid function, infections, toxins, and tumors.

"We look for some organ malfunction other than the brain," says Mains. "The dog could have low blood sugar, or a buildup of ammonia in the blood. It could be something wrong with the digestive tract, an imbalance of hormones, excessive potassium, or low sodium. All these things can cause a dog have what looks like a seizure."

Once all other factors are ruled out, the dog is diagnosed with epilepsy. But that is just the beginning.

Eternal Vigilance

It has been three years since Kruezer's first seizure. "It feels more like 10," says Stolze, a retired registered nurse. "I keep a log of his seizures. I write down the time, date, and place of each one." It is difficult to discern any clear pattern. "For a while, his seizures all occur at night. Then the pattern changes and they happen in the afternoon."

Toni McCurley's Greater Swiss Mountain Dog, Oso, began having seizures when he was about 2½ years old. "We were getting ready for bed, and suddenly Oso lost control of his bladder and started drooling and flopping around on the floor. My husband and I tried to hold him. We were both screaming and trying to figure out what to do. He gnawed all the way through one of the posts on our bed. He bit my husband, and I wasn't sure whether to take my dog or my husband to the emergency room!"

When the McCurleys got to the veterinary hospital, they received medications to control the seizures, which they, like Stolze, assumed would be a cure. But it was not long before Oso had another seizure, one that made his first appear mild by comparison. Like Kruezer, Oso had "cluster seizures," a relentless cycle of one attack after another. They are also of the "grand mal" type, which means his entire body convulses. Milder forms, known as "petit mal," can be subtle and transient, in which the dog may stand momentarily, staring into space.

"He just would not come out of it," McCurley explains. "At the hospital, they shot him with so much Valium he was unconscious."

Over the next eight days, Oso remained under watch at the hospital. He regained consciousness on the second day. "But he was blind and couldn't walk," McCurley says. "He couldn't lift his head." After four days, Oso regained his eyesight. But he had to be lifted up by a hoist, his legs too weak to stand.

The McCurleys took Oso home, along with a prescription for phenobarbital and potassium bromide, the classic combination for controlling seizures. "But he was not the same dog," McCurley explains. "He had no muscle coordination. We were scared to death because he would bang



his head on things. He was so weak, it was an effort just getting to the end of the driveway. He forgot his commands, and he forgot he was housebroken."

In the following months, the McCurleys retrained Oso and built up his strength. Today, according to McCurley, Oso is "90 percent normal. He runs and plays. He knows his commands. It's amazing when we think about what he was like in the hospital and what he's like now."

The prospect of more seizures is never very distant for the McCurleys. Once, they heard Oso's crate rattling at 2 A.M. "I have this liquid Valium I'm supposed to give him if he has a seizure," McCurley explains. "I had to extract the Valium from the bottle, get it into the syringe, then get it into a tube and insert it rectally." She was trembling while trying to do all this. "I stabbed myself with the needle and was bleeding all over the place. By the time I had the medicine

Lifelong condition: Emma (above) has had epilepsy for most of her 14 years. Oso (right) chewed through a bedpost when he had his first seizure.

ready, Oso was looking at me like he was saying, 'What are you doing?'"

Luckily, this was a mild seizure, a single attack that lasted only two minutes. But McCurley says she is always in fear of another cluster. "If I hear anything in the middle of the night, I'm awake and running over to see if he's all right."

O'Brien says epilepsy is uniquely disturbing. "If you ask psychologists what makes a terrifying situation, this is what they'll list: something that happens to a loved one, that you have no control over, and that you cannot predict. They will also cite sleep deprivation. With epilepsy, people are torn up watching their dogs have seizures, not knowing when it will happen next, and it frequently occurs in the middle of the night."

Unlike other diseases, an epileptic dog will usually have a normal life span, so the owner's vigilance must be sustained over many years. Marion Mitchell knows this well. Her 14-year-old Dalmatian, Emma, began having seizures at 15 months. "There is something about epilepsy that strikes the psyche," she says.

Mitchell, who is the chair of the Dalmatian Club of America's study group for seizure disorders, manages a support group, a source of information for people learning to deal with epileptic dogs. "My entire life for the past 13



years has been dedicated to dealing with this issue.”

Frustrated with the lack of options, Stolze experimented with dietary supplements and techniques ranging from physical manipulation of her dog's body to a variety of untested medications.

Kruezer's seizures are less frequent now, last under two minutes, and he has not had any more clusters. But Stolze can't say for sure whether there is a connection between Kruezer's improvements and the methods she has been trying. "It almost feels like the seizures simply have to run their course."

Mitchell was skeptical of alternative treatments, preferring scientifically proven ideas. But after five years of

"What I can be sure of with epilepsy is that I can't be sure of anything."

watching Emma seize, she says, "I was desperate to try something else. That's when someone asked me if I'd be willing to try raw food. I was ready for anything to keep Emma from suffering."

According to Mitchell, raw food helped. "Emma used to get seizures once a week. After switching to raw food, she's only had eight seizures in eight years. She's never gone back to her old level."

But Mitchell is still skeptical. "I can't say for sure that anything is true. I've always said Emma is a chemistry lesson in progress because I never know what will happen next."

McCurley also experimented with various methods, ideas gleaned from the Internet, from her vet, and in casual conversations. Oso's condition has improved. But can she prove that this is because of her experimental efforts?

"I have no idea," she admits. "Maybe it was just the passing of time. You really go crazy trying to figure out what works and what doesn't."

Anyone who has experienced epilepsy sympathizes with an owner's desire to try unproven treatments. Even a trained scientist is susceptible. Being a veterinarian did not help Mains deal with Layla's seizures. "As a veterinarian, I'd think about how to approach the problem. But as an owner, I'd just have the pain of going through all this. I'd flip between the two personalities. One moment, I'd be all

clinical, the next moment I was hysterical."

Layla had what Mains describes as "walking seizures, almost like she was blind and would just crash into things. Or she would act as if there was a bone in front of her. She'd lunge at it and try to bite it. But nothing was there. It was completely unpredictable."

Tighter Connections

Stolze somehow reached a healthy level of acceptance, and she began to enjoy her life and her dog again. In fact, she feels that the epilepsy brought her closer to Kruezer. "I've taken such care of him and all his needs. That's made me much more protective."

McCurley describes how her constant vigilance with Oso gave them a greater connection. "I can tell if there's the least little thing wrong with him. I'm always highly conscious of his behavior, his movements, how he's walking, if he does anything out of the ordinary. It definitely forms a stronger bond."

Emma is living proof that a dog can have a good long life, despite epilepsy.

"She'll be 15 this year, and she still gives me so much joy," Mitchell says. "She has changed my life. She's climbed 14,000-foot mountains in Colorado. She still goes hiking with my husband and me every day. She still jumps up onto the bed."

Stolze says that focusing too much on the seizures can make the owner miss out on the dog's entire life. "Yes, Kruezer has seizures, and when it happens it's upsetting. But still, most of his life is not about seizures. ... He enjoys going for walks, and even after everything he's been through, he's never nasty. During those times when he has seizures, you deal with it. But other times, you focus on something else. That way, everyone can still be happy."

In part two, we'll explore new research into the genetics, causes, and treatments of epilepsy. 🐾

Matthew Schenker is an award-winning writer who lives in Northhampton, Massachusetts, with his wife and a standard Poodle.

For more information: The Dalmatian Club of America has a comprehensive web site on and epilepsy: www.thedca.org/seizures.html. The DCA also offers the booklet "Canine Seizures" that can be downloaded at www.thedca.org/seizure.pdf. Marion Mitchell's web site, Epil-K9, can be found at www.canine-epilepsy.com.