

## **CBD Oil Significantly Reduces Seizures in 89% of Study Dogs**

Witnessing a seizure in your pet can be a harrowing experience. Since seizures can occur for many different reasons, including low blood sugar, hypothyroidism or even a viral infection, this veterinary neurologist is calling this 'promising' and 'exciting' study must-have information for pet owners.

**Analysis by Dr. Karen Shaw Becker**

### **STORY AT-A-GLANCE**

- Newly released study results on the effectiveness of CBD in the treatment of canine epilepsy are very promising
- A significant reduction in seizure frequency was seen in 89% of the dogs receiving CBD in the study, and there's a direct link between blood concentrations of CBD and seizure reduction
- There are many potential causes for seizures in dogs, including head trauma, infection, brain tumors, vaccines and genetic defects
- Caretakers of pets with seizure disorders should seriously consider transitioning to a ketogenic diet
- There are also several natural therapies that can help these patients and reduce or eliminate their need for anti-seizure medications

***Editor's Note: This article is a reprint. It was originally published October 06, 2019.***

"Promising" and "exciting" are the words Dr. Stephanie McGrath, a veterinary neurologist at Colorado State University's James L. Voss Veterinary Teaching Hospital, uses to describe the results of a groundbreaking pilot study on cannabidiol (CBD) in the treatment of epilepsy in dogs.<sup>1</sup>

The study took place in 2016 and 2017, and the results were published recently in the Journal of the American Veterinary Medical Association.<sup>2</sup> The CBD product used in the study was derived from a hemp plant, which has 0.3% or less of the psychoactive component of cannabis, THC.

### **Treatment With CBD Significantly Reduced Seizure Frequency in 89% of Dogs**

McGrath led the small study of 16 privately owned dogs, who were randomly assigned to either the treatment or placebo group. Nine received a CBD-infused oil for 12 weeks; the remaining seven (the control group) were treated with a placebo, and all were required to remain on standard anticonvulsant drugs, including phenobarbital and potassium bromide.

The researchers found that 89% of dogs who received CBD experienced a significant reduction (median change of 33%) in the frequency of seizures. They also noticed an important correlation between the degree of seizure reduction and the amount of CBD concentration in the dogs' blood.

Based on this finding, McGrath has adjusted the dose of CBD oil for dogs participating in a new clinical trial launched in January 2018, in which she hopes to enroll 60 dogs with epilepsy.<sup>3</sup>

Hopefully, if your pet is a seizure patient, your veterinarian is keeping up with the most recent data on the use of CBD to treat the condition and can discuss options with you. I encourage you to bring the subject up with your vet, or alternatively, find an integrative veterinarian who can recommend a protocol that includes CBD.

The number of CBD products flooding the market increases daily, and there are several different types of CBD extracts produced by many manufacturers that range from amazing to terrible, so partnering with a CBD-literate vet is important in navigating what product(s) are most appropriate for your pet's specific issues. Because of this herb's popularity, third-party validation of all products is a must.

## How to Know if Your Dog Is Having a Seizure

Of all the disorders that can occur in pets, a seizure is among the most frightening to witness. Seizures in your dog are often preceded by an aura during which she may seem dazed or scared, or she may hide or seek comfort from you. Once a major seizure begins, she'll fall on her side. Her body may grow stiff or she may make a paddling motion with her legs. Many pets also grind their jaws, drool excessively, vocalize and lose bladder or bowel control.

Needless to say, watching helplessly as your beloved dog goes through this experience is extremely distressing. But although you're alarmed, it's really important to stay calm. Keep your hands away from her face to avoid being bitten and keep her safely away from stairs or other locations where a fall could injure her.

It's also important to take a mental note of how your pet was behaving before the seizure (the "preictal" phase), during the seizure (the "ictal" phase), and afterwards (the "postictal" phase), as well as how long the episode lasted. If you can also video the event, it can be very helpful to your veterinarian.

Epileptic episodes typically last between 30 and 90 seconds. Afterward, your pet may appear confused or disoriented. She may wander aimlessly or pace, act restless, experience difficulty seeing and have increased thirst or hunger. Recovery after a seizure is sometimes immediate, or it can take up to 24 hours for her to feel and behave normally again.

## Types of Seizures

There are several, including:

- A **petit mal seizure** is the mildest type of seizure and can be as insignificant as an abnormal eye movement.
- A **grand mal seizure** is the other extreme and affects both sides of the brain and the body.
- **Status epilepticus** is a grand mal seizure that doesn't resolve. This is a medical emergency in which breathing ceases and the animal can die. If your pet is experiencing a grand mal seizure and isn't coming out of it, it's critical you get her to an emergency veterinary hospital right away in order to save her life.
- Cats and small dogs more commonly have **focal motor seizures** involving only a part of the body. These seizures can be hard to identify, as they often look like nothing more than a twitch, tremor or cramp.
- **Cluster seizures** are events that occur several times a day. Many cluster seizures are urgent care situations. If your pet has had more than one seizure in a day, I recommend you make an appointment with your

veterinarian. This type of seizure can lead to continual seizing and/or progressively more intense seizures.

Generally speaking, the younger the affected pet, the more severe the seizure disorder will be.

## Potential Causes of Seizures in Dogs

- Head trauma that results in brain swelling
- Bacterial, viral, fungal and parasitic infections
- Cervical subluxation (frequently the result of tugging at a leash attached to a collar instead of a harness)
- Liver disease (a damaged liver can't process toxins efficiently — toxins in the bloodstream can cross the blood-brain barrier)
- Metabolic disorders such as hypothyroidism
- Certain human and veterinary drugs, including neurotoxic topical chemicals like flea and tick preventives
- **Brain tumors** (especially in older pets)
- Certain immune-mediated diseases
- Congenital malformation of the brain stem or spinal cord
- Low blood sugar, especially in diabetic pets and those with pancreatic tumors
- Lead, mercury and plant poisoning, as well as exposure to fertilizers, pesticides, insecticides and herbicides
- Heatstroke
- Veterinary vaccines, some of which still contain thimerosal, organo-mercury compounds, or aluminum as adjuvants
- A defective DIRAS1 gene (Rhodesian Ridgebacks only)

## What Are You Feeding Your Pet?

A very important consideration if your pet has a seizure disorder is that nutritionally related health issues can cause or exacerbate the situation. One problem is food allergies, which can cause a systemic inflammatory response that can decrease your dog's seizure threshold.

Another issue is that most commercially available processed pet food contains synthetic chemicals (including vitamin premixes from China), preservatives, emulsifiers and other ingredients that can also cause systemic inflammation and decrease seizure thresholds. In some cases, the potentially seizure-inducing contaminants in pet food are many times higher than the legal human limits but are still allowed in pet foods.<sup>4</sup>

If done correctly, achieving nutritional ketosis with a ketogenic diet has proven to be very successful in managing epilepsy in pets, and in fact, it's the standard of care for pediatric epilepsy.<sup>5</sup>

This way of feeding respects your dog's evolutionary biology, and in addition, other symptoms may also improve on this diet, including a reduction in inflammatory disease. By keeping net carbs low, the body's level of insulin is reset to a much healthier, lower level, which reduces metabolic stress on every cell in the body.

In my 2017 documentary with Rodney Habib we discussed the benefits of a ketogenic diet as a means of controlling cancer, but this diet has also been used to control epilepsy in many dogs. You can read about **Sasha**, a little dog with seizures who was put on a ketogenic diet in 2014.

## Beneficial Natural Therapies

There are a wide range of natural substances than can help increase your pet's seizure threshold and decrease the potential for these events, including:

- Chiropractic and acupuncture
- Herbal formulas (including cannabis extracts)
- Homeopathic remedies
- Traditional Chinese medicinals
- Nutraceutical therapies

In mild cases, natural treatments plus a dietary change are often all that is needed to successfully manage the condition. For animals with frequent grand mal seizures, I typically create an integrative protocol of natural therapies and drug therapy.

I always ask pet parents to keep a log of the dates, times and intensity of seizures. Often there are links between seizures and a particular time of month or year. If we identify a cycle, we can develop a plan to control the episodes using the safest effective treatment options available. Animals with seizures should be titered, not vaccinated.

While seizures can be a very serious and truly frightening condition in pets, the best way to care for your dog is to arm yourself with knowledge about what to expect and how to react, along with designing a proactive preventive protocol with the help of an integrative veterinarian.

## Sources and References

[dvm360, June 6, 2019](#)

<sup>1</sup> [Colorado State University News Release, May 21, 2019](#)

<sup>2</sup> [Journal of the American Veterinary Medical Association, June 1, 2019, Vol. 254, No. 11, Pag-es 1301-1308](#)

<sup>3</sup> [Colorado State University News Release, March 18, 2019](#)

<sup>4</sup> [TruthAboutPetFood.com](#)

<sup>5</sup> [The Charlie Foundation](#)

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