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Dog Tips

# Can This Natural Remedy Reduce Seizures in Dogs?

Standard anti-seizure medications don't effectively control seizures in about a third of dogs with epilepsy, and these medications can come with adverse side effects and long-term health consequences. Learn more about exciting alternative natural therapies for seizure disorders.

#### Reviewed by <u>Dr. Becker</u>

#### STORY AT-A-GLANCE

- For about a third of dogs with epilepsy, standard anti-seizure medications don't effectively control their seizures; these medications also come with adverse side effects and longer-term health consequences that can further impact a dog's quality of life
- A small study at the Royal Veterinary College in the U.K. evaluated the effectiveness of a medium-chain triglycerides (MCTs) supplement to manage seizures in dogs
- A total of 17 of 28 dogs showed a significant reduction in seizure frequency while receiving the MCT supplement
- Other natural approaches to seizure management in dogs include chiropractic and acupuncture, homeopathic remedies, traditional Chinese medicinals, nutraceutical therapies and herbal formulas including cannabis extracts
- Achieving the metabolic state of nutritional ketosis with a ketogenic diet has also proven beneficial in managing epilepsy in pets, and can be very beneficial for epileptic dogs that aren't well controlled with medication

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Seizure disorders are among the most common neurologic conditions in dogs and are typically treated with anti-seizure medications. However, many seizure disorders in dogs (about a third) aren't well-controlled with traditional epilepsy drugs like phenobarbital and potassium bromide.<sup>1</sup> This has a significant impact on both behavior and cognitive function and can also make dogs prone to anxiety.<sup>2</sup>

The anti-seizure drug, Keppra, has the fewest side effects, but is expensive and doesn't always result in seizures being well controlled.

In addition, virtually all anti-seizure drugs come with potential adverse side effects and long-term consequences, creating situations in which it's difficult to balance the need to control dogs' seizures while also maintaining their quality of life.

Researchers continue to study alternative therapies and remedies for canine seizure disorder, however, while seizure-control diets have been studied extensively in human medicine, there hasn't been much research into dietary management of epilepsy in animals.

That's why a study published earlier this year in the Journal of Veterinary Internal Medicine may be one of the first of its kind to evaluate whether a diet high in medium-chain triglycerides (MCTs) might help control seizures in dogs currently receiving anti-seizure medication.<sup>3</sup>

### **MCTs Reduced Seizures in 17 of 28 Dogs**

The analysis, conducted by veterinary researchers and scientists at the Royal Veterinary College of the University of London, was a randomized, double-blinded, multicenter, placebo-controlled, crossover study involving 28 pet dogs with idiopathic (cause unknown) epilepsy.

The dogs had no abnormalities in bloodwork, previous cerebrospinal fluid analyses, or magnetic resonance imaging (MRI) findings. They had experienced at least three seizures in the three months preceding the study, were being treated with at least one anti-seizure drug, and were considered resistant to at least one of those drugs.

The dogs in the study group received a daily dose of an oil-based supplement high in MCT; the dogs in the control group received regular olive oil. All dogs were monitored for seizure frequency for three months, at which time the two groups switched supplements — the control group received the MCT and the study group received the olive oil for another three months.

The researchers found that the study dogs had a significant reduction in seizure frequency (number of days per month on which a seizure occurred) and improved quality of life (according to owner reports) as compared to the control group:

- 2 of the 28 dogs were seizure free at the end of the study
- 15 dogs had a reduction in seizure frequency, with 3 experiencing a 50% or greater reduction
- 11 dogs showed no response

The researchers concluded that:

"These data show antiseizure properties of an MCT-DS [dietary supplement] compared to a control oil and support former evidence for the efficacy of MCTs as a nutritive, management option for a subpopulation of drugresistant dogs with epilepsy."

And according to study co-author Dr. Rowena Packer:

"Our novel findings indicate that a relatively small change to the diet of dogs' with hard-to-treat epilepsy can potentially reduce the number of seizures they have, while also improving their medication side effects and overall quality of life. MCT oil offers a promising addition to the wider epilepsy management tool-kit."<sup>5</sup>

## **Additional Beneficial Natural Therapies for Seizure Disorders**

- Chiropractic and acupuncture
- Homeopathic remedies
- Traditional Chinese medicinals
- Nutraceutical therapies

Herbal formulas (including cannabis extracts)

In a successful pilot study published last year in the Journal of the American Veterinary Medical Association,<sup>6</sup> a CBD (cannabidiol) product derived from a hemp plant significantly reduced seizure frequency in 89% of epileptic dogs. (Hemp-based CBD typically contains 0.3% or less of the psychoactive component of cannabis, THC.)

The study involved 16 family dogs who received either the treatment (CBD-infused oil) or a placebo for 12 weeks. All the dogs remained on standard anticonvulsant drugs throughout the study.

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

In mild cases of canine seizure disorder, natural treatments plus a dietary change (more about this shortly) are often all that is needed to successfully manage the condition. For animals with frequent grand mal seizures, having an integrative protocol of natural therapies and drug therapy is helpful.

Pet parents should 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 a cycle is identified, you can develop a plan to control the episodes using the safest effective treatment options available. Animals with seizures should be titered, not automatically re-vaccinated.

#### The Role of Diet in Seizure Disorders

A very important consideration if your dog 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 ultra-processed pet food contains synthetic chemicals, chemical dyes, preservatives, emulsifiers and other ingredients that can also cause systemic inflammation and decrease seizure thresholds. In some cases, the level of potentially seizure-inducing contaminants is many times higher than legal human limits but is still allowed in pet foods.<sup>7</sup>

One question many functional veterinarians have about this study is how much better would test results have been if the carbohydrate content of the diet was reduced. It's well established that achieving the metabolic state of nutritional ketosis (low blood sugar, elevated ketones) has proven very successful in managing epilepsy in pets, and in fact, it's the standard of care for human pediatric epilepsy.<sup>8</sup>

MCT's added to the Standard American Dog Diet (the SADD diet) shows some additional seizure control, as this study demonstrates, but how much more improvement would have been achieved if MCTs were added to anti-inflammatory, low carb diets? The results would have been even more impressive.

A low carb, higher fat diet resonates with your dog's evolutionary biology, and in addition, other symptoms may also improve on a ketogenic 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.

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**

- <sup>1</sup> dvm360, July 10, 2020
- <sup>2, 5</sup> Veterinary Practice, May 19, 2020
- <sup>3, 4</sup> Berk, B.A. et al. Journal of Internal Veterinary Medicine, April 15, 2020
- <sup>6</sup> <u>Journal of the American Veterinary Medical Association, June 1, 2019, Vol. 254, No. 11, Pages 1301-1308</u>
- <sup>7</sup> <u>TruthAboutPetFood.com, March 8, 2019</u>
- <sup>8</sup> The Charlie Foundation (Archived)