

Evidence for the Use of CBD to Treat Canine Idiopathic Epilepsy

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In the world of canine health, cannabidiol (CBD), a non-psychoactive component of the Cannabis sativa plant, has received a lot of attention for its potential use to treat multiple health problems such as arthritis, anxiety, epilepsy, and more. However, few scientific studies have proven its efficacy, determined appropriate dosing, or demonstrated its safety in dogs. Thankfully, the AKC Canine Health Foundation (CHF) and its donors addressed this need for scientific evidence by investing in a clinical trial to examine the efficacy of CBD in treating canine epilepsy ([CHF Grant 02323: Efficacy of Cannabidiol \(CBD\) for the Treatment of Canine Epilepsy](#)). Dogs were enrolled in this study conducted at Colorado State University from 2017 through 2021 and the findings were recently published in the Journal of Veterinary Internal Medicine. This groundbreaking research sheds light on CBD's potential to change the game for dogs with this challenging condition.

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Idiopathic epilepsy is the most common medical neurologic disease in dogs. It is defined as seizures caused by a suspected or confirmed genetic origin or with no apparent cause. Even with many effective anti-seizure medicines available, almost one-third of dogs with idiopathic epilepsy still have seizures despite appropriate treatment. Plus, these medications often cause unwanted side effects such as sedation, changes in appetite, and more.

Building on previous studies that demonstrated CBD's anti-seizure activity in rodents, people, and dogs, CHF-funded investigators set out to determine if CBD could decrease seizures in a larger group of dogs without causing unwanted side effects. Thirty-nine epileptic dogs representing mixed breeds and 14 different purebreds completed the trial. In addition to their regular anti-seizure medications, dogs received either CBD oil or placebo oil for 3 months, took no oil for 1 month, then received the other oil for 3 months. Neither owners nor primary care veterinarians knew which oil the dogs were taking during the study – helping to avoid any bias in the data collection.

The results were promising. While taking CBD oil, dogs experienced fewer days in which they had a seizure compared to the period during which they took placebo oil. The CBD oil was generally well-tolerated, with vomiting and decreased appetite being the most common adverse effects reported. While taking CBD oil, increases in liver enzyme levels were noted. Increased alkaline phosphatase (ALP) has previously been reported in dogs taking CBD oil long-term. However, the new finding of increased alanine aminotransferase (ALT) could indicate liver damage when CBD is given in combination with other anti-seizure drugs and warrants further study.

Encouraged by these findings, CHF is funding a continuation study to help refine the dosing schedule for treating canine idiopathic epilepsy with CBD. Investigators are now comparing different doses of different formulations of CBD oil to determine the most effective dose to maximize benefits while minimizing side effects ([CHF Grant 02930: A Dose Finding Study of Cannabidiol in Dogs with Idiopathic Epilepsy](#)). These studies demonstrate CHF's ongoing commitment to finding better treatments and more accurate diagnostics for canine epilepsy. For dogs and their owners, it represents hope for fewer seizures and an improved quality of life. Learn more about this important work at akcchf.org/epilepsy.