# bark & whiskers

Dog Tips Cat Tips

# The Effective Pain Treatment Your Vet May Not Want to Talk About

Studies show it's useful for managing pain and mobility problems due to arthritis, and pet owners are even reporting success with anxiety, behavior issues and seizure disorders. But don't expect your vet to suggest it or even discuss it with you. Here's what you need to know about its safe usage.

#### Reviewed by Dr. Becker

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

- To develop evidence-based science for the use of CBD in pets, veterinary researchers at Colorado State University are conducting clinical trials of CBD oil to treat both osteoarthritis and epilepsy in dogs
- Researchers at Cornell have also just completed a study of CBD oil in the treatment of canine arthritis, and their results support anecdotal reports of CBD oil's benefits to decrease pain and increase mobility
- A current study of CBD oil in cats is underway at Cornell, and there are future plans to study its use in pain management and behavior applications
- Pet owners report success using CBD oil for anxiety and behavior disorders in dogs, as well as seizure disorders and pain management
- On the legal front, industrial hemp is no longer considered a controlled substance as long as the level of THC is under 0.3%, and recent research indicates that CBD oil manufactured and distributed for veterinary use is not illegal on either a federal or state level

### Editor's Note: This article is a reprint. It was originally published June 9, 2018.

Over the last few years our website has posted a handful of interviews and articles about medical marijuana/cannabidiol (CBD) for dogs and cats. But unfortunately, due to a lack of research of CBD for animals, coupled with marijuana's Schedule I status under the U.S. Drug Enforcement Administration (DEA), most veterinarians are understandably reluctant to discuss the topic with pet parents.

But there's also some encouraging news on the horizon, because university veterinary researchers have begun

conducting trials using CBD to treat certain health problems in pets. In addition, the laws regulating the cultivation and sale of hemp products appear to be loosening up.

## **Colorado State University Is Studying CBD for the Treatment of Osteoarthritis** and Epilepsy in Dogs

At the Colorado State University Veterinary Teaching Hospital, Dr. Stephanie McGrath, who specializes in treating seizure disorders and inflammatory brain diseases in animals, recently completed a study of CBD for the treatment of osteoarthritis in dogs, and is currently running an epilepsy study.

"We have diseases that we don't have treatments for that work, so there's a problem," McGrath explained in an interview with the publication Westword. "A solution to that problem is trying to find a solution that does work, so we are always searching.

That, along with this drug becoming legalized [in Colorado], prompted a lot more questions from clients and veterinarians. And [with] me being unable to answer their questions, that really bothered me. So the more I started looking, the more I realized what a void there was in cannabis research."<sup>1</sup>

The CBD oil McGrath uses for her studies is very low in THC (the ingredient in marijuana that gives users a "high") at less than 0.3%, meaning there are no psychoactive effects, which makes it safe for dogs. Her osteoarthritis study required that participating dogs have arthritis affecting one or more joints and a visible lameness that had been present for at least four weeks.

Each dog in the study received either the CBD oil or a placebo for six weeks, after which the CBD group received a placebo and the placebo group received CBD for another six weeks. During the 12-week period, each dog received X-rays, bloodwork, 15 minutes of walking per day and a daily pain assessment.<sup>2</sup>

In the current epilepsy trial, study dogs must experience at least two seizures a month and be receiving conventional anticonvulsant medications. The trial is set up similar to the arthritis trial, except that each phase runs 12 weeks for a total of 24 weeks.<sup>3</sup> The dogs will undergo an MRI brain scan and spinal tap to rule out any underlying causes for their seizures, and will have bloodwork performed every four weeks. The dogs' owners must keep a daily seizure log and weekly behavioral questionnaire.

A total of 27 dogs are participating in the two studies, and researchers are logging dosage, oil application, side effects and how to counteract those side effects. This type of research will surely benefit dogs, dog parents and veterinarians around the world.

# Cornell Also Completed a Study of CBD Oil to Treat Canine Osteoarthritis; A Study in Cats Is Ongoing

Another study completed at Cornell University College of Veterinary Medicine in collaboration with a manufacturer of CBD oil, concluded that 2 mg/kg of cannabidiol oil twice daily helped increase comfort and activity in dogs with osteoarthritis.<sup>4</sup> The objectives of the study were to determine how to best administer the CBD oil, evaluate its safety and assess its ability to help manage pain in dogs with osteoarthritis.

The researchers determined the half-life of the oil at both 2 mg/kg and a higher dose of 8 mg/kg to be a little over

four hours. The study dogs received a 2 mg/kg dose of oil every 12 hours for four weeks after a two-week washout period. The dogs' owners completed questionnaires and veterinarians conducted assessments, including a physical exam and bloodwork, prior to beginning treatment and again at weeks two and four.

The Canine Brief Pain Inventory score and the Hudson activity score were used to assess pain and lameness in the dogs, and the researchers observed that the results support anecdotal reports of CBD oil's benefits. Veterinary assessments, the pain inventory and the activity score showed a significant reduction in pain and an increase in activity in the dogs who received CBD treatment.

The research team is currently conducting a similar trial with cats, and there are additional studies planned to evaluate the use of CBD oil in treating acute pain, behavior issues and during chemotherapy for pets with cancer.

### **Other Uses for Cannabidiol in Pets**

Dr. Rob Silver, who's a veterinarian and herbalist, is an expert on giving cannabidiol for pets. According to the pet owners he talks to, one of the most common applications for CBD is for anxiety and behavior issues in dogs. It seems to work very well for hyper dogs, and at low dosages, which is a good thing, since CBD products are expensive.

Per Rob, studies on cannabinoids show they have a strong affinity for the brain and nervous tissue, and are able to easily cross the blood-brain barrier. There is evidence that CBD is helpful for certain kinds of seizure disorders, as well as in closed-head trauma patients.

When it comes to pain management, there's a significant amount of evidence that supports the use of CBD. And since cannabinoids work differently in the body than narcotics and also non-steroidal anti-inflammatory drugs, they can be used together without the risk of drug interactions.

Rob had a client with a dog who had osteosarcoma (bone cancer) and was in a great deal of pain. The client decided to offer cannabinoids to his pet, and after just five days, the dog was once again able to begin putting weight on the leg with the tumor. There's also evidence CBD may shrink tumors. However, what people are discovering is that cannabinoids, like many Chinese herbs used to treat cancer, work well while in use, but if they're discontinued, the cancer returns.

## Legalities of Veterinary Use of CBD Oil

Some background information from veterinary journal dvm360:5

- Hemp plants contain less than 0.3% tetrahydrocannabinol (THC), which is the chemical in cannabis/marijuana that gives people a "high" (and which is dangerous for pets). In 2014, the Agricultural Act of 2014 (the Farm Bill) was signed into law. This bill allowed for the study and cultivation of industrial hemp on a limited basis.
- The following year, the Industrial Hemp Farming Act of 2015 was passed, which allowed U.S. farmers to grow and cultivate industrial hemp more widely, and also removed it from the controlled substances list as long as it contains no more than 0.3% THC.

A lawyer consulted by dvm360 researched CBD oil use in pets, and everything he was able to find suggests that CBD

oil manufactured and distributed for veterinary use is not illegal on either a federal or state level.<sup>6</sup> However, veterinarians should double-check the laws in the states where they practice to protect their licenses.

### **Sources for CBD Products for Pets**

Dr. McGrath at Colorado State used a CBD product manufactured by Applied Basic Science Corporation, and vouches for its safety. She also recommends, if you're already using a CBD product or are considering one, that you try to get a "Certificate of Analysis" which should show you how much THC is in the product (it should never be over 0.3%), how it's made, and whether it's organic and free of pesticides and other chemicals. The Cornell researchers used CBD products made by ElleVet Sciences.

Dr. Rob Silver's book, "Medical Marijuana and Your Pet: The Definitive Guide," is written for dog and cat owners to help them understand the benefits and risks of cannabidiol for pets, as well as regulatory issues. He also sells CBD products online through his Well-Pet Dispensary.

### **Sources and References**

- <sup>1</sup> Westword, October 9, 2017
- <sup>2</sup> CSU CVMBS Clinical Trial: Efficacy of Cannabidiol for the Treatment of Osteoarthritis in Dogs
- <sup>3</sup> CSU CVMBS Clinical Trial: Efficacy of Cannabidiol for the Treatment of Epilepsy in Dogs
- <sup>4</sup> CISION PR Newswire, February 2, 2018
- <sup>5</sup> dvm360, May 9, 2018
- <sup>6</sup> Memorandum on the Use of CBD Oil for Veterinary Practices