

Cats are sensitive creatures and can develop a wide range of ailments and maladies. Many of these illnesses and conditions are related to aging, while others arise from poor diet, a lack of exercise, too much stress, and underlying genetic factors.

Unfortunately, they don't always get the level of care they require.

“Cats are really the underserved population in general in veterinary medicine because they are so difficult to medicate.” So says Robert J. Silver, DVM, MS, CVA, chief medical officer for Rx Vitamins for Pets, which offers an extensive line of nutraceutical products for animals. “They are so solitary in many regards, and still so wild that they are relatively stoic about hiding their diseases until they become more dominant,” he said. “Oftentimes, we don't know they've got a problem until it gets to be almost too late.”



Robert J. Silver, DVM, MS, CVA[/caption]

With cats, as with any animal, worst-case scenarios may sometimes be unavoidable. But there is one type of nutraceutical that may be able to help prevent more serious conditions from developing. This natural, plant-based substance is cannabidiol (CBD), an active ingredient in hemp (*Cannabis sativa*) that has demonstrated a broad range of therapeutic benefits for human beings and animals of all species, including cats.

Many veterinarians remain unfamiliar with CBD products, or at least unconvinced of their efficacy. But an increasing number are recommending CBD-based solutions for a variety of health problems that affect their patients. They've been motivated to do so by a relatively small but growing body of research that seems to authenticate CBD's therapeutic capacities, along with ample anecdotal evidence collected from clients and through direct clinical practice.

Three veterinary professionals interviewed for this article—Silver; ReAnna Cornell, LVT, VTS (Dentistry); and Héctor Robin Pérez Pérez, DVM, MS—have become advocates for CBD products as a possible remedy for several common (and some uncommon) ailments experienced by cats. While the science has progressed a bit further in the study of CBD's effects for dogs, all have seen enough to believe CBD can be highly beneficial for cats as well.

An Emerging Market on the Verge of Exploding

American consumers spent \$6.7 billion in 2019 on pet treats, according to the market research firm Packaged Facts. The market for soft chews, jerky strips, biscuits, gels, pastes, and other types of edibles suitable for dogs and cats has been expanding, with rates of annual growth predicted to average 2.8% per year through at least 2023.

CBD is a primary factor driving this growth. Since hemp was legalized nationally in the 2018 Farm Bill, the public's interest in this no-longer- forbidden plant has grown by leaps and bounds.

“Product innovation featuring cannabidiol, an active ingredient derived from hemp, in products for humans and pets alike has arguably been the most discussed [market] trend of 2019,” Packaged Facts stated in its 2019 report. About 11% of dog owners and 8% of cat owners say they've given their pets a treat containing CBD on at least one occasion, and industry experts predict these percentages will grow exponentially in the coming decade.

Veterinarians who know about CBD and have seen its benefits firsthand are encouraging this development. Pérez, who treats patients at Servicios Veterinarios Santa Lucia in Arecibo, Puerto Rico, frequently includes CBD in discussions about keeping his clients' pets healthy. “It's been a pretty good response,” he said.



Héctor Robin Pérez Pérez, DVM, MS Photo courtesy of Servicios Veterinarios Santa Lucía

“When you talk to them and you explain that it’s not the same thing as marijuana or it doesn’t have the same effect as THC does, they tend to be calmer,” Pérez continued. “My goal with my clients is to stress the importance of preventive medicine as well as providing the best options when they do become ill. I explain why diet, exercise, and good nutrition can keep their pets healthy for their lifetime. As part of their healthy lifestyle and if they do become ill, I have a line of nutraceuticals. Some include CBD and some don’t.”

(Pérez was born and raised in the United States, is fully bilingual, and can provide the same information to both his English-speaking and Spanish-speaking clients.)

What CBD Can Do for Cats

As a medicinal supplement, CBD has a wide range of potential applications for cats. “Cannabis can be used for so many different things,” said Cornell, founder of Veterinary Cannabis in Wheat Ridge, Colorado, and an online consultant for veterinary cannabis education who counsels pet owners on the benefits of cannabis-based medicines. “Irritable bowels, those poor kitties who get colitis, pancreatitis, anxiety, cats who are overgrooming, cats who have hyperesthesia, . . . neurological conditions, neuropathy, seizures, cancer patients—the list can go on and on and on, how cannabis can be efficacious for pets.”



ReAnna Cornell, LVT, VTS (Dentistry). Photo by Northstar photography in Farmington Hills, Michigan

Cornell added, “Humans have been looking to CBD to treat a variety of illnesses for centuries, but modern-day science is just catching up. There aren’t a ton of studies yet, but the ones I’ve read all prove how safe and efficacious CBD use in veterinary medicine is.”

At present, CBD is frequently used to treat stress and anxiety issues in cats, which are linked to various types of destructive, self-destructive, or hostile behavior.

“CBD is an anxiolytic,” Silver confirmed. “We’ve seen pretty good responses with cats, and especially, I think, with behavior. When you get into multiple-cat households, you get a lot of these [anxiety-related] behavioral issues.”

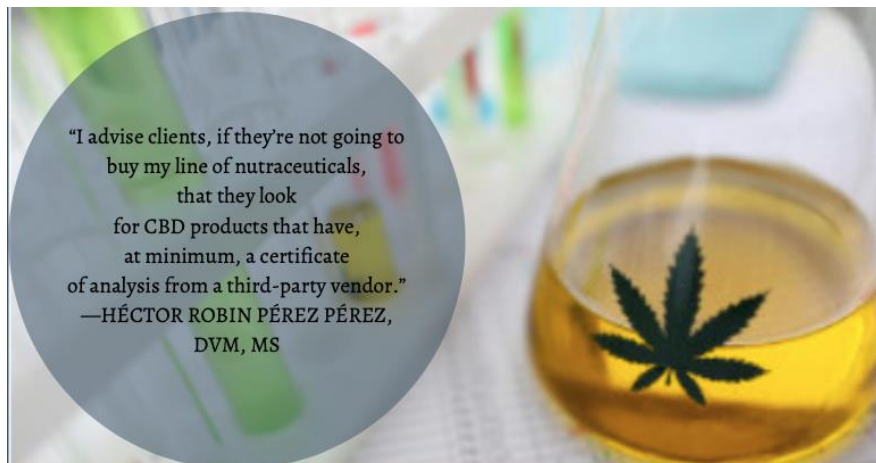
Echoing Cornell, Silver also mentioned CBD’s potential to help cats overcome gastrointestinal problems.

“When you are dealing with inflammatory bowel disease, with chronic colitis and those kinds of things, it can be a very difficult problem, clinically, to solve,” Silver noted. CBD’s anti-inflammatory capacities are well known, and Silver said Rx Vitamins for Pets is working hard to develop CBD-based products that can treat thorny gastrointestinal difficulties.

Meanwhile, Pérez identified “cases of allergies, cases of inflammation or joint pain, [and] neurogenic pains” as some of the conditions in cats that CBD can help counteract.

“Colorado State University looked at the safety and efficacy of CBD in cats and dogs for anxiety, epilepsy, pain, and cancer, which I share with clients who have any reluctance about their cats using it,” Pérez said. “I’ve also been able to reduce conventional dosages of regular medications when I use CBD. That’s a plus.”

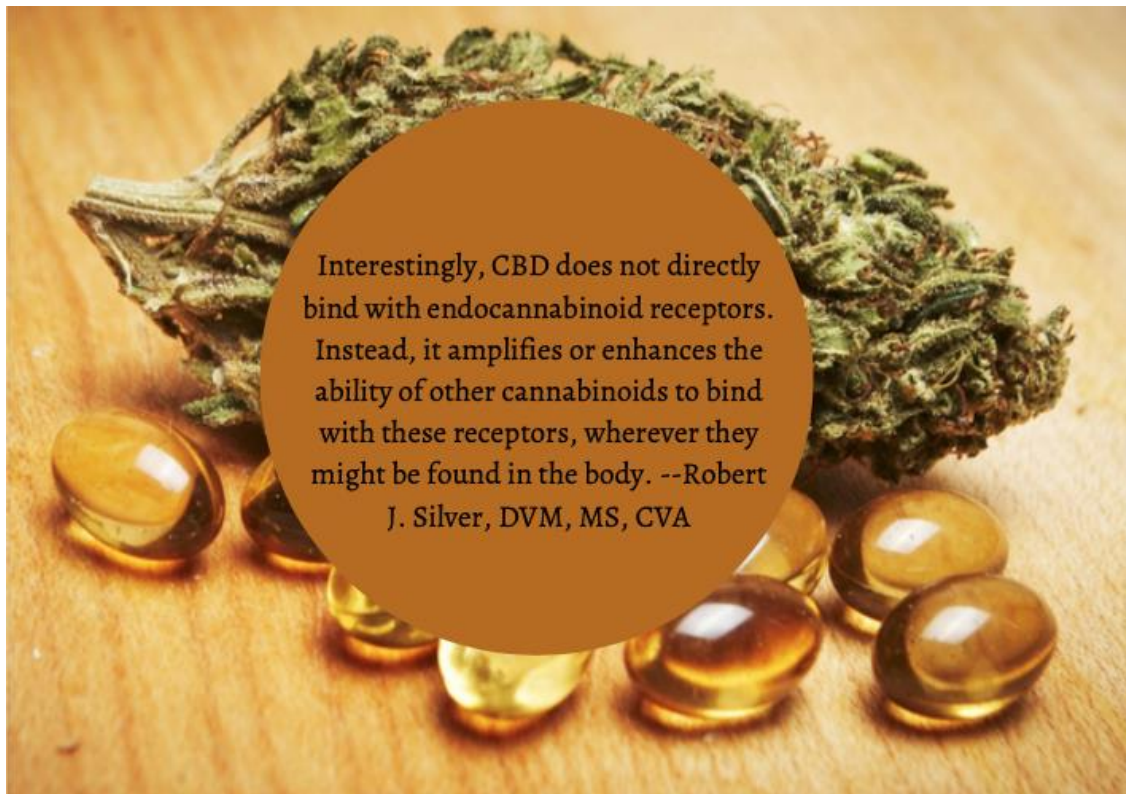
As a precaution, Pérez added, “As with supplements for humans, CBD included, it’s important for pet owners to know not all CBD products are created equally—for animals or humans. I advise clients, if they’re not going to buy my line of nutraceuticals, that they look for CBD products that have, at minimum, a certificate of analysis from a third-party vendor. Next, look at the other ingredients in their formulations. If the company doesn’t provide those, don’t buy from them because they’re hiding something or adding either inert and even dangerous ingredients.”



Studies examining the effect of CBD on cats have been scarce, and while several are ongoing, few have been completed at this time. The CBD supplement company ElleVet Sciences has reported on two successful trials involving cats, one testing for safety and the other for pain relief. However, since these studies were privately funded by a CBD manufacturer and retailer, some may consider them less than definitive (although ElleVet does submit its research for peer review).

Veterinarians who speak positively of CBD's benefits for cats are relying largely on their own experiences, and those of their clients. They are also familiar with evidence collected from research involving human beings and other animals (primarily dogs), which has revealed virtually nothing but good news for CBD backers.

Unlike most pharmaceutical medications, CBD has shown no tendency to produce serious side effects in cats, even as dosages escalate.



The Science Behind CBD

CBD and other cannabinoids with therapeutic capacities work their magic through their interactions with the endocannabinoid system. Naturally produced endocannabinoids bind with specially designed receptors in the central nervous system (CB1 receptors) and peripheral nervous system (CB2 receptors). All mammals have been found to possess a natural endocannabinoid system, which supports essential biological functioning at a fundamental level.

In a paper published in the September 2019 issue of the peer-reviewed journal *Animals*, Silver summarizes the state of current research into the functioning of the endocannabinoid system in animals. He credits the endocannabinoid system in animals with playing “an integral role in maintaining homeostasis for a number of organ systems.”

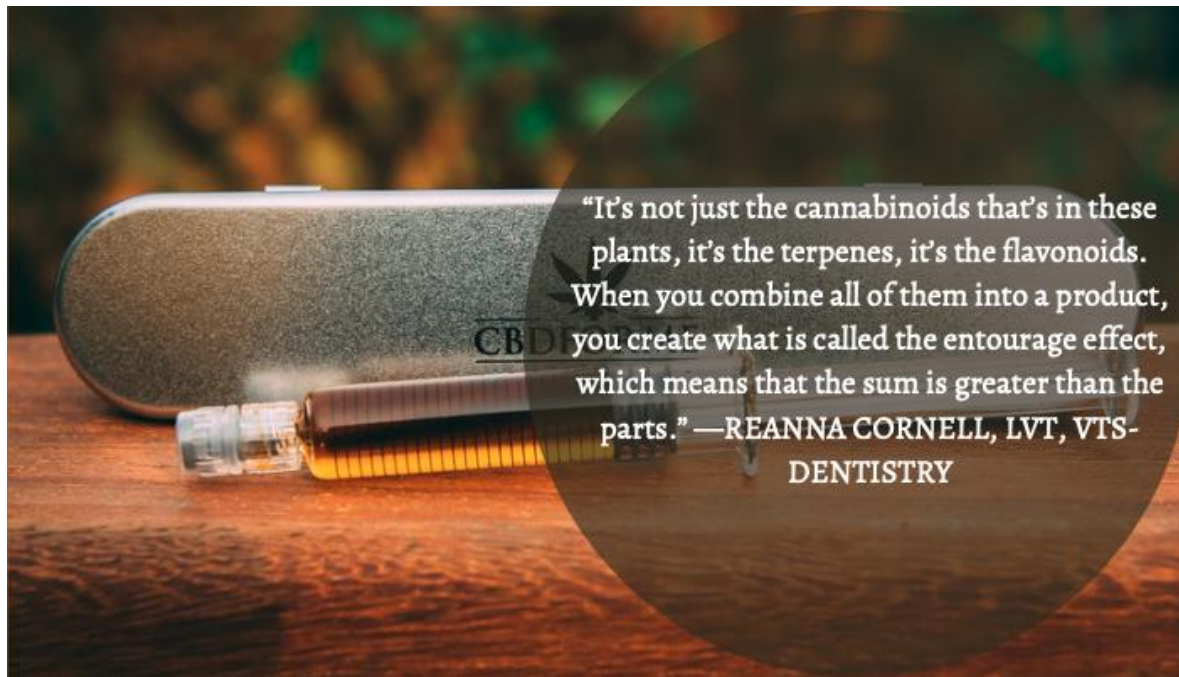
“The endocannabinoid system,” Silver states, “modulates the nervous and immune systems and other organ systems through a complex system of receptors and chemical-signaling molecules to relieve pain and inflammation, modulate metabolism and neurologic function, promote healthy digestive processes, and support reproductive function and embryologic development.”

Fortuitously, endocannabinoid receptors can bind easily with cannabinoids that have been harvested from cannabis plants.

This evolutionary convergence between cannabis and animal physiology represents a remarkable symbiosis, given the vital role that proper endocannabinoid functioning performs in maintaining animal health.

Interestingly, CBD does not directly bind with endocannabinoid receptors. Instead, it amplifies or enhances the ability of other cannabinoids to bind with these receptors, wherever they might be found in the body. CBD also interacts with enzymes to spur the further production of endogenous cannabinoids.

“The good thing about using CBD, if you can’t use THC, is that the use of CBD does increase endogenous THC,” Pérez explained. This is significant, since THC, along with CBD, possesses most of cannabis’s healing properties. “A cat’s body does have receptors, and, if stimulated, will produce its own THC molecules.”



By law, CBD-based products for humans and animals cannot contain more than 0.3% THC, despite the latter's therapeutic effectiveness (particularly against pain). But CBD's capacity to stimulate natural THC production gives it utility as a painkiller, and for use against other conditions that THC may help ameliorate.

CBD and the Entourage Effect

While distilled CBD or THC can deliver medical benefits, they are believed to be even more efficacious when taken in combination with other chemicals found in cannabis.

"It's not just the cannabinoids that's in these plants, it's the terpenes, it's the flavonoids," said Cornell. "When you combine all of them into a product, you create what is called the entourage effect, which means that the sum is greater than the parts. So if we can bring more of that plant to that pet, that's what we should do."

The existence of a broad-based entourage effect is difficult to prove, and studies into its validity have produced mixed results. But CBD's natural capacity to boost the mammalian body's sensitivity to other cannabinoids (particularly THC) is a clear example of the entourage effect in action.

With or without the entourage effect, CBD and THC are not the only compounds that matter.

"One [cannabis] plant is going to contain over 500 different molecules," Cornell said. "Out of those molecules to date, there are over 180 different cannabinoids. So beyond CBD and THC, I know that I still have 178 other cannabinoids that can be efficacious to a pet."

Seeking to unlock the power of whole-plant medicine, CBD marketers frequently offer so-called broad loaded or full-spectrum products as alternatives to distillates. The former include all compounds that occur naturally in the hemp plant except for THC, which is extracted, while full-spectrum products preserve even the THC (at the legally permissible level). Despite their chemical complexity, broad- and full-spectrum products are still categorized as CBD, since this compound is far more biologically active than any other ingredient.

Full-spectrum products are not considered appropriate for dogs. If exposed to THC, they can suffer a frightening and disorienting reaction known as static ataxia. But cats don't demonstrate the same vulnerability.

"Cats do not seem to be as affected by THC," Silver explained. "probably because they don't have the same distribution of cannabinoid receptors in their brain. At Rx Vitamins, we've had broad-spectrum products for four or five years. I'm just now launching a full-spectrum product, specifically for cats."

Reluctance from the Top

While some veterinarians—and companies—are eager to introduce pet owners to CBD products, there is little guidance from the authorities that govern the veterinary industry.

“The AVMA, our national body that oversees veterinarians, has been very slow to recommend the use of CBD,” Silver lamented, noting that concern over THC content seems to be the source of the trouble. He said that many veterinarians don’t understand that hemp has such low levels of THC that the risk of THC overdose is minimal.

The AVMA, on its website, says that its conservative approach is in part due to lack of definitive guidance from the US Food and Drug Administration (FDA).

“In July 2019, the AVMA submitted comments to the FDA urging the agency to provide regulatory clarity about expectations for the labeling, safety, and use of cannabis-derived and cannabis-related products,” the site says. “This is critical to assure the safe and appropriate use of these products in animal drugs, food, feed, and food/feed additives.”

At Veterinary Cannabis Education and Consulting, Cornell and her colleagues deal daily with the fallout from the veterinary profession’s reticence on the subject of cannabis.

“[Pet owners] have heard that CBD can help, but they don’t know where to start,” she explained. “Their veterinarian isn’t on board, or they are afraid they are going to hurt their beloved animal.”

In her work as a veterinary cannabis consultant, Cornell does her best to help fill in the knowledge gap for the benefit of both the pet owners she counsels and their regular veterinarians, who she insists must be kept informed if clients choose to purchase CBD products for their cats.

To ensure quality control in a largely unregulated industry, Silver and Cornell advise pet owners to purchase CBD products exclusively from companies that provide results from third-party testing, and they encourage other veterinarians to help their clients make wise choices.

“One of the things I teach to veterinarians is how to vet a product by looking at the certificate of analysis,” Silver said. “The certificate for analysis that comes from a company is not as valid as a certificate of analysis from a third-party lab.”

Knowing what’s in CBD products is vital, for veterinarians and pet owners alike, since they might contain ingredients that can interact with pharmaceutical medications or have other potentially troubling side effects. Cornell points out that some products marketed as CBD are actually made from hemp seed oil, which contains no CBD whatsoever.

A New Day Dawning?

There is currently a bill under consideration in the California legislature that would allow veterinarians to directly recommend CBD products to their patients’ owners if they truly believe those products offer the best possibility of recovery. If this bill is passed into law, California veterinarians would no longer be limited to just discussing the pros and cons of CBD, as Cornell, Silver, and Pérez are doing now.

At this juncture, California is the only state considering making such a change in veterinary policy.

“Cannabis can be so efficacious for so many different things, but silence on our part as veterinary professionals comes with a very serious risk,” Cornell said. “At the end of the day, that pet parent is going to do what that pet parent wants to do with their beloved animal.”

The accumulating evidence strongly suggests that CBD is both safe and effective for cats, and for other animals as well, as long as it is purchased from reputable manufacturers. Backed by the industry’s regulatory bodies, veterinarians could help guide pet owners to CBD products that really work, while steering them away from mislabeled or low-quality products that do not.