

**The Use of Cannabis in Veterinary Medicine**  
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The endocannabinoid system (ECS) consists of neurotransmitters and receptors throughout the nervous system and peripheral tissues. The overarching function of the ECS is to promote and maintain homeostasis. The phytocannabinoids within cannabis can have profound effects on the ECS and the body as a whole.

The physiologically active constituents of cannabis are:

- Phytocannabinoids- most predominantly THC and CBD
  - THC is the most psychoactive cannabinoid as it is a CB<sub>1</sub> (and CB<sub>2</sub>) agonist
  - CBD has effect on the CNS but does not produce severe psychoactive effects. It is a CB<sub>1</sub> and CB<sub>2</sub> antagonist
- Terpenes- also sometimes referred to as essential oils
  - Terpenes have pharmacologic activity by themselves and contribute to the overall effect of a cannabis preparation
  - The terpene profile of a cannabis preparation can have a profound effect on its biological activity
- Flavonoids- plant based antioxidants

General starting guidelines for conditions treated:

- THC Dominant: Severe pain (cancer, IVDD, severe DJD), anti-neoplastic
- Even THC:CBD: Neurologic (IVDD, brain/ spinal trauma), pain, IBD anti-neoplastic
- CBD Dominant (including hemp-based CBD): Anxiety, seizure disorders, cognitive dysfunction, pain, anti-neoplastic, insulin resistance for Type II diabetes

When using medical cannabis in patients, the most important factors to consider are:

- The condition being treated
- THC:CBD ratio
- The mg amount of THC and CBD present in the preparation
- Certificate of Analysis (CoA) confirming the above as well as documenting the formula is free of contaminants (pesticides, fungal toxins, etc.

Beginning dosing guidelines for cannabis in dogs and cats:

- THC: 0.1-0.25 mg/kg divided BID
- CBD: 0.25-4 mg/kg divided BID
- \*Dosages may be increased slowly based on effect and a lack of side effects
- \*Cannabis follows a bi-phasic dosing curve: More may not always be better

**Always adhere to your local and state regulations regarding the use of medical cannabis in animals.**