



Opyd, P. (2025)

'Mechanisms of action of cannabidiol (CBD) in anxiety disorders in animals',
Journal of Elementology, 30(2), ,
available: <https://doi.org/10.5601/jelem.2024.29.4.3475>



RECEIVED: 17 December 2024

ACCEPTED: 10 May 2025

REVIEW PAPER

Mechanisms of action of cannabidiol (CBD) in anxiety disorders in animals*

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Abstract

Anxiety disorders are among the most commonly observed behavioral problems in pets, especially in dogs and cats. Animal owners are looking for multiple solutions, including traditional pharmacotherapy, e.g. the use of benzodiazepines or serotonin reuptake inhibitors. However, alternative therapies are increasingly being reached for, including naturally derived compounds such as cannabidiol (CBD). CBD, a non-psychoactive compound derived from *Cannabis sativa*, which is gaining interest as a potential therapeutic agent for treating anxiety disorders in animals. This review examines the mechanisms of action of CBD, with a focus on its effects on serotonin (5-HT_{1A}) receptors, cannabinoid receptors (CB₁ and CB₂), the GABA-ergic system and neurogenesis in the hippocampus. Evidence from preclinical studies indicates that CBD modulates these systems to exhibit anti-anxiety effects by reducing stress reactions and improving adaptation to anxiety stimuli. In addition, the safety profile of CBD is discussed, including such side effects as sedation, gastrointestinal distress and interactions with other drugs. Although CBD has a high safety profile at moderate doses, there is a need for further research to determine its long-term effects and optimal therapeutic regimens. The review confirms the potential of CBD as an innovative anti-anxiety agent for the treatment of anxiety disorders in animals, while emphasizing the need for continued research into its mechanisms of action and safety.

Keywords: cannabis sativa, CBD, anxiety, behavioral problems

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* Funding: This review was not funded by external sources or received dedicated financial support.