

Research on CBD and Parkinson's

Cannabidiol (CBD) is one of at least 85 active cannabinoids. Scientific studies are reporting a wide variety of positive health benefits. CBD has been found to be helpful to the endocannabinoid system. Many scientific discoveries link poor health to endocannabinoid deficiencies.

Studies have found positive effects for the use of CBD on anxiety, stress and PTSD. You can find these studies listed at : pubmed.com (the US government's index of scientific studies). Search and the terms "CBD and anxiety."

Below are listed abstracts from studies that have studied the effects of CBD for subjects who currently experience Parkinson's symptoms.

[Effects of cannabidiol in the treatment of patients with Parkinson's disease: an exploratory double-blind trial.](#)

[J Psychopharmacol.](#) 2014 Nov;28(11):1088-98. doi: 10.1177/0269881114550355. Epub 2014 Sep 18.

Chagas MH, Zuardi AW, Tumas V, Pena-Pereira MA, Sobreira ET, Bergamaschi MM, dos Santos AC, Teixeira AL, Hallak JE, Crippa JA.

Twenty one (21) subjects were assigned to three groups of seven subjects each who were treated with placebo, cannabidiol (CBD) 75 mg/day or CBD 300 mg/day. One week before the trial and in the last week of treatment subjects were evaluated with respect to motor and general symptoms score (UPDRS) and well-being and quality of life (PDQ-39).

No statistically significant differences were found in UPDRS scores. Despite the very small sample size, groups treated with placebo and **CBD 300 mg/day** had significantly different mean total scores in the PDQ-39 ($p = 0.05$). Significance is very much a factor of sample size,

so this result is striking in itself. Findings suggest a possible effect of CBD in improving quality of life measures in PD patients with no psychiatric comorbidities.

Cannabis (medical marijuana) treatment for motor and non-motor symptoms of Parkinson disease: an open-label observational study.

[Clin Neuropharmacol.](#) 2014 Mar-Apr;37(2):41-4. doi: 10.1097/WNF.000000000000016.

Lotan I, Treves TA, Roditi Y, Djaldetti R. by Paul Armentano, NORML Deputy Director March 17, 2014

Inhaling whole-plant cannabis provides symptomatic relief in patients with Parkinson's disease (PD), according to a scientific article published in the March/April edition of the journal *Clinical Neuropharmacology*. Investigators at Tel Aviv University, Department of Neurology evaluated Parkinson's disease symptoms in 22 patients at baseline and 30-minutes after inhaling cannabis.

Researchers reported that inhaled cannabis was associated with *“significant improvement after treatment in tremor, rigidity, and bradykinsea (slowness of movement). There was also significant improvement of sleep and pain scores. No significant adverse effects of the drug were observed.”*

The researchers concluded that their study is *“the first to report an amelioration of both motor and non–motor symptoms in patients with PD treated with cannabis. The study opens new venues for treatment strategies in PD especially in patients refractory to current medications.”*

Cannabidiol can improve complex sleep-related behaviours associated with rapid eye movement sleep behaviour disorder in Parkinson's disease patients: a case series.

[J Clin Pharm Ther.](#) 2014 Oct;39(5):564-6. doi: 10.1111/jcpt.12179. Epub 2014 May 21

Chagas MH, Eckeli AL, Zuardi AW, Pena-Pereira MA, Sobreira-Neto MA, Sobreira ET, Camilo MR, Bergamaschi MM, Schenck CH, Hallak JE, Tumas V, Crippa JA.

The administration of cannabidiol (CBD) was found to control sleep disorders in patients who currently experience the symptoms of Parkinson's disease as reported in the *Journal of Clinical Pharmacy and Therapeutics*. An international team of researchers from the University of Sao Paulo in Brazil and the University of Minnesota Medical School USA evaluated the ingestion of CBD by four Parkinson's disease patients with REM sleep behavior disorder (RBD). This condition is characterized by nightmares and active behavior during dreaming.

Cannabidiol treatment reduced symptoms in each of the four subjects. Symptoms returned with the same frequency and intensity following subjects' discontinuation of the cannabinoid.

[Brain Res Bull.](#) 2019 Mar;146:244-252. doi:
10.1016/j.brainresbull.2019.01.016. Epub 2019 Jan 18.

Cannabinoid receptor as a potential therapeutic target for Parkinson's Disease.

[Baul HS](#), [Manikandan C](#), [Sen D](#).

Abstract

Parkinson's disease (PD) is the second most prevalent neurodegenerative disease, characterized by the loss of dopaminergic neurons from substantia nigra pars compacta of basal ganglia caused due to gene mutation, misfolded protein aggregation, reactive oxygen species generation and inflammatory stress. Degeneration of dopaminergic neurons results in muscle stiffness, uncoordinated body movements, sleep disturbance, fatigue, amnesia and impaired voice. Currently, levodopa (L-DOPA) administration is the most widely used therapy for PD. But prolonged administration of L-DOPA is associated with the symptoms of dyskinesia. However, emerging evidences suggest the role of cannabinoid receptors (CBRs) in curtailing the progression of PD by activating neuroprotective pathways. Hence, cannabinoid therapy could be a promising alternative to combat PD in future. In the present review we have discussed the potential role of CBRs in attenuating the key mechanisms of PD and how the existing research gaps needs to be bridged in order to understand the molecular mechanism of CBRs in detail.

[Front Integr Neurosci](#). 2018 Oct 18;12:51. doi: 10.3389/fnint.2018.00051. eCollection 2018.

Cannabis Therapeutics and the Future of Neurology.

[Russo EB](#).

Abstract

Neurological therapeutics have been hampered by its inability to advance beyond symptomatic treatment of neurodegenerative disorders into the realm of actual palliation, arrest or reversal of the attendant pathological processes. While cannabis-based medicines have demonstrated safety, efficacy and consistency sufficient for regulatory approval in spasticity in multiple sclerosis (MS), and in Dravet and Lennox-Gastaut Syndromes (LGS), many therapeutic challenges remain. This review will examine the intriguing promise that recent discoveries regarding cannabis-based medicines offer to neurological therapeutics by incorporating the neutral phytocannabinoids tetrahydrocannabinol (THC), cannabidiol (CBD), their acidic precursors, tetrahydrocannabinolic acid (THCA) and cannabidiolic acid (CBDA), and cannabis terpenoids in the putative treatment of five syndromes, currently labeled recalcitrant to therapeutic success, and wherein improved pharmacological intervention is required: intractable epilepsy, brain tumors, Parkinson disease (PD), Alzheimer disease (AD) and traumatic brain injury (TBI)/chronic traumatic encephalopathy (CTE). Current basic science and clinical investigations support the safety and efficacy of such interventions in treatment of these currently intractable conditions, that in some cases share pathological processes, and the plausibility of interventions that harness endocannabinoid mechanisms, whether mediated via direct activity on CB₁ and CB₂ (tetrahydrocannabinol, THC, caryophyllene), peroxisome proliferator-activated receptor-gamma (PPAR γ ; THCA), 5-HT_{1A} (CBD, CBDA) or even nutritional approaches

utilizing prebiotics and probiotics. The inherent polypharmaceutical properties of cannabis botanicals offer distinct advantages over the current single-target pharmaceutical model and portend to revolutionize neurological treatment into a new reality of effective interventional and even preventative treatment.

[Drugs](#). 2018 Nov;78(16):1665-1703. doi: 10.1007/s40265-018-0996-1.

Medical Use of Cannabinoids.

[Fraguas-Sánchez AI](#), [Torres-Suárez AI](#)

Abstract

Cannabinoid receptors, endocannabinoids and the enzymes responsible for their biosynthesis and degradation constitute the endocannabinoid system. In recent decades, the endocannabinoid system has attracted considerable interest as a potential therapeutic target in numerous pathological conditions. Its involvement in several physiological processes is well known, such as in energy balance, appetite stimulation, blood pressure, pain modulation, embryogenesis, nausea and vomiting control, memory, learning and immune response, among others, as well as in pathological conditions where it exerts a protective role in the development of certain disorders. As a result, it has been reported that changes in endocannabinoid levels may be related to neurological diseases such as Parkinson's disease, Huntington's disease, Alzheimer's disease and multiple sclerosis, as well as anorexia and irritable bowel syndrome. Alterations in the endocannabinoid system have also been associated with cancer, affecting the growth, migration and invasion of some tumours. Cannabinoids have been tested in several cancer types, including brain, breast and prostate cancers. Cannabinoids have shown promise as analgesics for the treatment of both inflammatory and neuropathic pain. There is also evidence for a role of the endocannabinoid system in the control of

emotional states, and cannabinoids could prove useful in decreasing and palliating post-traumatic stress disorder symptoms and anxiety disorders. The role of the endocannabinoid system in addictions has also been examined, and cannabinoids have been postulated as alternative and co-adjuvant treatments in some abuse syndromes, mainly in ethanol and opioid abuses. The expression of the endocannabinoid system in the eye suggests that it could be a potential therapeutic target for eye diseases. Considering the importance of the endocannabinoid system and the therapeutic potential of cannabinoids in this vast number of medical conditions, several clinical studies with cannabinoid-based medications are ongoing. In addition, some cannabinoid-based medications have already been approved in various countries, including nabilone and dronabinol capsules for the treatment of nausea and vomiting associated with chemotherapy, dronabinol capsules for anorexia, an oral solution of dronabinol for both vomiting associated with chemotherapy and anorexia, a Δ^9 -tetrahydrocannabinol/cannabidiol oromucosal spray for pain related to cancer and for spasticity and pain associated with multiple sclerosis, and an oral solution of cannabidiol for Dravet and Lennox-Gastaut syndromes. Here, we review the available efficacy, safety and tolerability data for cannabinoids in a range of medical conditions.

[Molecules](#). 2018 Jun 25;23(7). pii: E1526. doi: 10.3390/molecules23071526.

Structure-Activity Relationship of Cannabis Derived Compounds for the Treatment of Neuronal Activity-Related Diseases.

[Prandi C](#), [Blangetti M](#), [Namdar D](#), [Koltai H](#).

Abstract

Cannabis sativa active compounds are extensively studied for their therapeutic effects, beyond the well-known psychotropic activity. *C. Sativa* is used to treat different medical indications, such as multiple sclerosis, spasticity, epilepsy, ulcerative colitis and pain. Simultaneously, basic research is discovering new constituents of cannabis-derived compounds and their receptors capable of neuroprotection and neuronal activity modulation. The function of the various phytochemicals in different therapeutic processes is not fully understood, but their significant role is starting to emerge and be appreciated. In this review, we will consider the structure-activity relationship (SAR) of cannabinoid compounds able to bind to cannabinoid receptors and act as therapeutic agents in neuronal diseases, e.g., Parkinson's disease.

[Front Pharmacol.](#) 2018 May 11;9:482. doi: 10.3389/fphar.2018.00482. eCollection 2018.

Cannabidiol as a Promising Strategy to Treat and Prevent Movement Disorders?

[Peres FF](#), [Lima AC](#), [Hallak JEC](#), [Crippa JA](#), [Silva RH](#), [Abílio VC](#).

Abstract

Movement disorders such as Parkinson's disease and dyskinesia are highly debilitating conditions linked to oxidative stress and

neurodegeneration. When available, the pharmacological therapies for these disorders are still mainly symptomatic, do not benefit all patients and induce severe side effects. Cannabidiol is a non-psychotomimetic compound from *Cannabis sativa* that presents antipsychotic, anxiolytic, anti-inflammatory, and neuroprotective effects. Although the studies that investigate the effects of this compound on movement disorders are surprisingly few, cannabidiol emerges as a promising compound to treat and/or prevent them. Here, we review these clinical and pre-clinical studies and draw attention to the potential of cannabidiol in this field.

Bottom Line

The CBD treatment options seems to be a good one to consider, especially if you are have significant challenges with functioning on a day to day basis. There is research on the use of CBD that address problems related to trauma, anxiety post traumatic stress – all of which lie at the core cause of neurological difficulties.

As with any natural treatment option, be sure to check with your doctor to insure that use of CBD will not interfere with any treatments your doctor has prescribed for you.