

## Huntington Disease

Huntington disease (HD) is an inherited degenerative brain disorder characterized by motor abnormalities and dementia produced by selective lesions in the cerebral cortex and, in particular, the striatum. There are presently no known conventional therapies available to alleviate HD symptoms or delay HD-associated striatal degeneration.

Cannabinoids possess various properties that show potential for the treatment of neurodegenerative disorders like Huntington disease,<sup>1-4</sup> and cannabinoid administration has shown efficacy in the treatment of HD in preclinical models<sup>5-7</sup> as well as in case studies.<sup>8-9</sup>

A 2009 randomized controlled trial assessing the use of a synthetic cannabinoid (nabilone) in 44 patients with HD demonstrated behavioral and symptomatic improvements in patients.<sup>10</sup> Two more recent human trials, both involving the use of plant-cannabis extracts (Sativex), have shown mixed results. While one study<sup>11</sup> identified no significant changes in patients' motor subscores on the Unified Huntington's Disease Rating Scale, patients participating in a second study did show motor score improvements following the initiation of cannabis therapy.<sup>12</sup>

Most recently, a 2021 literature review of 22 studies assessing the effects of either cannabis or cannabinoids on tremor, spasms, and other HD-related symptoms determined, "[T]he majority of studies showed statistically significant results favoring the use of medical marijuana, especially for improving motor symptoms and quality of sleep." While acknowledging that further human trials are warranted, authors nonetheless concluded, "[W]e recommend that physicians consider prescribing medical marijuana as an adjunctive treatment for symptomatic relief to slow the progression or reverse spasms, tremor, spasticity, chorea, dystonia, behavioral neuropsychiatric and sleep disturbances in patients with Huntington disease."<sup>13</sup>

## REFERENCES

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<sup>11</sup> Lopez-Sendon Moreno et al. 2016. [A double-blind, randomized, cross-over, placebo-controlled, pilot trial with Sativex in Huntington's disease.](#) *Journal of Neurology* 263:1390-1400.

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<sup>13</sup> Akinyemi et al. 2020. [Medical marijuana effects in movement disorders: Focus on Huntington disease: A literature Review.](#) *Journal of Pharmacy & Pharmaceutical Sciences* 23: 389-395.