

Migraine

Migraine is a reoccurring headache syndrome that can last for up to 72 hours if left untreated. About 14 percent of Americans, primarily women, suffer from migraines. Migraine effects include pulsing cranial pain, nausea, light sensitivity, dizziness, difficulty speaking, and confusion, among other symptoms.

The endogenous cannabinoid system is suspected to play a significant role in migraine pathophysiology¹⁻³ and several studies have identified differences in ECS functioning and the production of endocannabinoids in migraine sufferers versus controls.⁴⁻⁷

Cannabis possesses a long history of human use in the treatment of migraines.⁸⁻¹⁰ Recent survey data reports that nearly one-third of patients with migraines have utilized cannabis for symptom management, and the majority of those who have done so reported it to be effective.¹¹ Among patients recommended medical cannabis, as many as two-thirds have reported decreasing their use of conventional medications to treat migraines.¹²⁻¹³ Separate survey data compiled from migraine sufferers who use both cannabis and conventional anti-migraine treatments reports that the majority of subjects find cannabinoids to be more effective at mitigating their symptoms.¹⁴

In recent years, several studies have documented the efficacy of inhaled cannabis and/or plant-derived extracts for patients with migraines. A retrospective assessment of 121 adults with a primary migraine diagnosis reported, "Migraine headache frequency decreased from 10.4 to 4.6 headaches per month with the use of medical marijuana." Inhaling cannabis was also reported by many patients to abort the onset of migraines.¹⁵ Observational trial data presented in 2017 at the 3rd Congress of the European Academy of Neurology reported that the daily administration of cannabinoid extracts resulted in a 40 percent reduction in migraine frequency in a cohort of 79 chronic migraine patients.¹⁶

In 2019, Washington State University reviewed archived data from 1,959 anonymous cannabis consumers who tracked their cannabis use and headache frequency over a 16-month period via an online application. Authors reported that inhaled cannabis reduced subjects' perceived severity of headache and migraine by nearly 50 percent. Men were more likely than women to report changes in headache severity.¹⁷

Longitudinal data published in 2020 reported that patients who engage in cannabis inhalation for extended periods of time typically report reductions in migraine frequency. The majority of participants in the study (61 percent) reported a greater than 50 percent reduction in monthly migraine attacks following the initiation of cannabis therapy, and most reduced their use of conventional anti-migraine medications.¹⁸

Separate patient data presented at the 2020 annual meeting of the American Headache Society reported similar results. Researchers affiliated with the Jefferson Headache Center at Thomas Jefferson University in Philadelphia evaluated the efficacy of marijuana use for patients with migraines over nine months. A majority of patients reported reductions in their use of prescription medications during the course of the trial. On a scale of one to ten, 20 percent of subjects rated marijuana's efficacy in treating migraines as a 10.¹⁹

Most recently, a team of investigators affiliated with the University of New Mexico assessed the effects of herbal cannabis inhalation on migraines in 699 subjects over a 32-month period. Study participants self-administered cannabis at home and reported symptom changes in real time on a mobile software

application. Researchers reported that 94 percent of subjects experienced symptom relief within two hours of marijuana inhalation. On average, patients experienced a reduction in symptom intensity of 3.3 points on the 10-point scale. Varieties of cannabis that contained higher THC content (above 10 percent) were most closely associated with providing symptom relief.

Authors of the study concluded: "According to the current results, cannabis flower appears to be effective at reducing headache- and migraine-related pain intensity for most people that choose to use it. ... It seems possible that the use of cannabis flower, combined with other behavioral modifications, might offer some patients a natural, safer and more effective treatment regimen, compared to the use of some conventional prescription pharmaceuticals."²⁰

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