

Fibromyalgia

Fibromyalgia (FM) is a chronic pain syndrome of unknown etiology. The disease is characterized by widespread musculoskeletal pain, fatigue, and multiple tender points in the neck, spine, shoulders and hips. An estimated 3 to 6 million Americans are afflicted by fibromyalgia, which is often poorly controlled by standard pain medications.

Fibromyalgia patients frequently self-report using cannabis to successfully manage symptoms of the disease.¹⁻¹⁰ Experts in the field have suggested that FM is among a class of diseases that may originate in a clinical endocannabinoid deficiency (underproduction of endogenous cannabinoids).¹¹⁻¹³

Several human studies have documented the successful use of cannabinoids in patients with FM.

Writing in 2006 in the journal *Current Medical Research and Opinion*, investigators affiliated with Germany's University of Heidelberg evaluated the analgesic effects of oral THC in nine patients with fibromyalgia over a 3-month period. Subjects in the trial were administered daily doses of 2.5 to 15 mg of THC and received no other pain medication during the trial. Among those participants who completed the trial, all reported a significant reduction in daily recorded pain and electronically induced pain.¹⁴

A 2008 study published in the *Journal of Pain* reported that the administration of the synthetic cannabinoid nabilone significantly decreased pain in 40 subjects with fibromyalgia in a randomized, double-blind, placebo-controlled trial. "As nabilone improved symptoms and was well-tolerated, it may be a useful adjunct for pain management in fibromyalgia," investigators concluded.¹⁵ Another trial, published in 2010, reported that low doses of nabilone significantly improved sleep quality in patients diagnosed with the disease.¹⁶

A 2011 observational, case-control trial reported that the use of whole-plant cannabis mitigated various symptoms of fibromyalgia, including pain and muscle stiffness. Investigators at the Institut de Recerca Hospital del Mar in Barcelona assessed the associated benefits of cannabis in patients with fibromyalgia compared with FM patients who did not use the substance. Twenty-eight users and nonusers participated in the study. Authors reported: "Patients used cannabis not only to alleviate pain but for almost all symptoms associated to FM, and no one reported worsening of symptoms following cannabis use. ... Significant relief of pain, stiffness, relaxation, somnolence, and perception of well-being, evaluated by VAS (visual analogue scales) before and two hours after cannabis self-administration was observed." Cannabis users in the study also reported higher overall mental health summary scores than nonusers did. Investigators concluded: "The present results together with previous evidence seem to confirm the beneficial effects of cannabinoids on FM symptoms."¹⁷

In 2018, Israeli investigators assessed the safety and efficacy of inhaled cannabis in a cohort of 26 patients with fibromyalgia. They reported that cannabis treatment "was associated with significant favorable outcomes in every item evaluated," such as reductions in pain and increases in energy. Nearly half of the study's participants also reduced their use of other prescription drugs, such as opiates and benzodiazepines. Researchers concluded, "Medical cannabis treatment had a significant favorable effect on patients with fibromyalgia, with few adverse effects."¹⁸

Another Israeli study published that same year assessed the analgesic efficacy of both opioids and medical cannabis in 31 FM patients with lower back pain. Participants were treated with inhaled cannabis

of relatively low THC potency (less than five percent) for a minimum of six months. Patients in the study reported greater pain improvement with medical cannabis than with opioids alone. Patients demonstrated increased range of motion following cannabis treatment but did not show any similar improvement with opioids. While undergoing cannabis treatment, the majority of patients elected to “decrease or discontinue pharmaceutical analgesic consumption” – a finding that is consistent with those of several other studies. Authors concluded: “This observational cross-over study demonstrates an advantage of MCT (medical cannabis treatment) in FM patients with LBP (lower back pain) as compared with SAT (standard analgesic therapy). Further randomized clinical trial studies should assess whether these results can be generalized to the FM population at large.”¹⁹

A longitudinal study published in 2019 assessed the use of cannabis over a six-month period in 211 patients with fibromyalgia. Eighty-one percent of subjects in the study reported “at least moderate improvement in their condition ... without experiencing serious adverse events.” Patients were most likely to report overall reductions in pain and overall improvements in their quality of life following cannabis therapy. Authors concluded, “In the present study, we demonstrated that medical cannabis is an effective and safe option for the treatment of fibromyalgia patients’ symptoms.”²⁰

Another study, published in 2020, reported that cannabis therapy was associated with improvements in sleep and reductions in pain in FM patients, as well as with reductions in the use of prescribed medicines. The study’s authors concluded, “Medical cannabis is an effective treatment for fibromyalgia. ... Medical cannabis treatment enabled nearly half of the patients to discontinue any treatment for fibromyalgia and all participants recommended medical cannabis treatment for their loved ones in case they develop severe fibromyalgia.”²¹

That same year, a team of Italian researchers evaluated the adjunctive use of whole-plant medical cannabis extracts in 102 FM patients who had not previously responded to conventional medical treatments. The adjunctive use of cannabis over a six-month period was associated with improvements in anxiety and depression in half of the study’s participants. Just under half of subjects reported improvements in sleep, and a third acknowledged a reduction in overall disease severity. Authors concluded, “This observational study shows that adjunctive MCT (medical cannabis treatment) offers a possible clinical advantage in FM patients, especially in those with sleep dysfunctions.”²²

Also in 2020, placebo-controlled clinical trial data from Brazil reported that daily administration of plant-derived, THC-rich cannabis oil (containing 4.4 mg of THC and 0.08 mg of CBD) was effective and well-tolerated by FM patients. Investigators reported that cannabis dosing was associated with an “extended significant reduction” in subjects’ symptoms, as assessed by the Fibromyalgia Impact Questionnaire (FIQ). They concluded, “[T]he impact of the intervention on quality of life in the cannabis group participants was evident, resulting in reports of well-being and more energy for activities of daily living. Pain attacks were also reduced.”²³

Most recently, data published in 2021 assessed the long-term effects of cannabis in 38 patients with refractory forms of fibromyalgia. Participants in the study consumed cannabis for up to 12 months in combination with their prescribed medications. The study’s author reported that “significant improvements were observed” following the initiation of cannabis therapy in most patients. Participants were most likely to report reductions in pain, as well as declines in their disability index and overall symptom severity scores. Most subjects who were responsive to medical cannabis reported experiencing “no or mild side effects.” Subjects also did not appear to develop long-term tolerance to the substance, as patients had no need to increase their dosages of medical cannabis over the duration of the study period.²⁴

Writing in the *Journal of Alternative and Complementary Medicine*, scientists concluded that the available literature on the subject “indicates that medicinal cannabis can benefit people with FMS.”²⁵

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