

# Researchers test medical marijuana as possible therapy for chronic itch

13 May 2021



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Chronic itch—known clinically as chronic pruritus—is characterized as an unrelenting and sometimes even debilitating sensation to itch, and often lowers the quality of life for those who suffer with it. Treating the condition has been difficult because there are few Food and Drug Administration-approved therapies. Now, a recent case study by Johns Hopkins Medicine researchers provides evidence that a promising option for patients with chronic itch may already be available: medical marijuana (cannabis).

A report on the team's findings was published in *JAMA Dermatology*.

"Chronic itch can be an especially difficult condition to treat, with off-label therapeutics often utilized," says Shawn Kwatra, M.D., assistant professor of dermatology at the Johns Hopkins University

School of Medicine. "With the increased utilization of medical [marijuana](#) and our knowledge of the role of the endocannabinoid system [a complex cell-signaling system that regulates a variety of functions in the body] in [chronic itch](#), we decided to try medical marijuana with a patient who failed several therapies and had few options left."

Kwatra and his colleagues examined an African American woman in her 60s with a 10-year history of chronic itch. The patient initially arrived at the Johns Hopkins Itch Center with complaints of extreme pruritus on her arms, legs and stomach. Upon a skin examination, numerous hyperpigmented, raised skin lesions were revealed. Several treatments were offered to the patient—including several systemic therapies, centrally acting nasal sprays, steroid creams and phototherapy—but they all failed.

Kwatra says that using medical marijuana—either by smoking or in liquid form —provided the woman with nearly instantaneous improvement.

"We had the patient rate her symptoms using a numerical rating scale, where 10 is the worst itch and zero is no itch at all," Kwatra says. "She started at 10 but dropped to 4 within 10 minutes after initial administration of the medical marijuana. With continued use of the cannabis, the patient's itch disappeared altogether."

The researchers believe that one of the [active ingredients](#) in medical marijuana, tetrahydrocannabinol—commonly known by its abbreviation THC—attaches itself to brain receptors that influence the [nervous system](#). When this occurs, inflammation and nervous system activity decrease, which also could lead to a reduction in skin sensations such as itchiness.

Kwatra says that although conclusive studies have yet to be done to validate medical marijuana as an effective measure for the relief of previously

unmanageable itch, he believes it warrants further clinical trials.

"Controlled studies are needed to determine dosing, efficacy and safety for [medical marijuana](#) in the treatment of various human itch subtypes, and once those are performed, we will better understand which [patients](#) are most likely to benefit from this therapy," he says.

**More information:** Youkyung S. Roh et al. Treatment of Chronic Pruritus With Medical Marijuana, *JAMA Dermatology* (2021). DOI: [10.1001/jamadermatol.2021.1194](https://doi.org/10.1001/jamadermatol.2021.1194)

Provided by Johns Hopkins University School of Medicine

APA citation: Researchers test medical marijuana as possible therapy for chronic itch (2021, May 13) retrieved 17 May 2021 from <https://medicalxpress.com/news/2021-05-medical-marijuana-therapy-chronic.html>

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