

Pruritus

Itching (pruritus) is a common symptom associated with numerous skin diseases, as well as a secondary symptom of numerous serious conditions such as renal failure and liver disease. Itching, unlike other skin sensations, is generally a result of CNS activities and typically goes untreated by standard medical therapies.

The endocannabinoid system is acknowledged to play an important role in maintaining skin health¹ and cannabinoids have been identified as promising agents for the treatment of acne,² itch,³ epidermolysis bullosa,⁴⁻⁵ and other types of skin conditions.⁶⁻⁸

Several small observational trials and case reports document beneficial effects of either cannabis or cannabinoids for patients with pruritus.

Writing in the August 2002 issue of the *American Journal of Gastroenterology*, investigators from the University of Miami Department of Medicine reported successful treatment of pruritus with 5 mg of THC in three patients with cholestatic liver disease.⁹ Prior to cannabinoid therapy, subjects had failed to respond to standard medications and had lost their ability to work. Following evening cannabinoid administration, all three patients reported a decrease in pruritus, as well as “marked improvement” in sleep and were eventually able to return to work. Resolution of depression was also reported in two out of three subjects. “Delta-9-tetrahydrocannabinol may be an effective alternative in patients with intractable cholestatic pruritus,” investigators concluded.

The following year, British researchers reported in the journal *Inflammation Research* that the peripheral administration of the synthetic cannabinoid agonist HU-211 significantly reduced experimentally-induced itch in 12 subjects.¹⁰ Investigators had previously reported that topical application of HU-210 on human skin reduced experimentally-induced pain and acute burning sensations.¹¹

Polish researchers in 2015 reported that application of an endocannabinoid-based topical cream reduced uremic pruritus and xerosis (abnormal dryness of the skin) in hemodialysis patients.¹² Three weeks of twice-daily application of the cream “completely eliminated” pruritus in 38 percent of trial subjects and “significantly reduced” itching in others. Eighty-one percent of patients reported a “complete reduction” in xerosis following cannabinoid therapy.

A team of John Hopkins University researchers reported in 2021 about the successful use of cannabis by a woman in her 60s with a 10-year history of pruritus. The subject had been unresponsive to multiple anti-pruritic therapies, including topical corticosteroids. Writing in *JAMA Dermatology*, researchers reported that the patient experienced sustained improvements over a 20-month period following her use of botanical cannabis and cannabis-based tinctures. The subject’s Dermatology Life Quality Index Score fell from 17 to 1 over the study period. The subject also reported ceasing her intake of other anti-pruritic medications. Minimal adverse effects were reported.¹³ Another case study published that same year reported significant improvements in a 60-year-old patient with ALS and refractory pruritus after he began consuming oral formulations of cannabis. Authors of the study concluded, “Cannabinoids are possibly safe and effective in management of neuropathic pruritus.”¹⁴

As a result of this and other data,¹⁵⁻¹⁶ some dermatology experts have opined that cannabinoids may represent “promising new avenues for managing itch more effectively”¹⁷ and that the use of cannabinoids may be a viable option for patients.¹⁸

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