

Cannabis Oil (CBD)



Cannabis is increasingly used around the world to treat a variety of different dermatological conditions. Cannabinoids, such as cannabidiol, have demonstrated anti-inflammatory, antioxidant, and anti-aging properties due to their interaction with the skin's endocannabinoid system, thus providing a promising alternative to traditional treatments (1).

Antioxidant effect

The antioxidant properties of CBD can help reduce the signs of aging by repairing the damage caused by free radicals. Furthermore, this effect is enhanced by the ability of the endocannabinoid system to control the proliferation, differentiation and survival of basal cells. Some studies suggest that the stimulation of the CB1 receptor produced by compounds derived from the Cannabis plant can delay skin aging (1). Its benefit as an additive in sunscreens has also been shown, since its antioxidant effect minimizes the damage caused by UV rays (2).

Anti-inflammatory effect

The anti-inflammatory properties of CBD result from its interaction with CB2 receptors in the skin's endocannabinoids system. When CBD activates these receptors, they influence the communication between cells of the immune system, suppressing inflammation and reducing redness and swelling. This effect has been studied in vitro in human sebocytes, showing very good results (figure 1), which suggest that the universal sebostatic action of CBD is accompanied by substantial anti-inflammatory effects, which would be highly desirable in the clinical treatment of acne vulgaris (3).

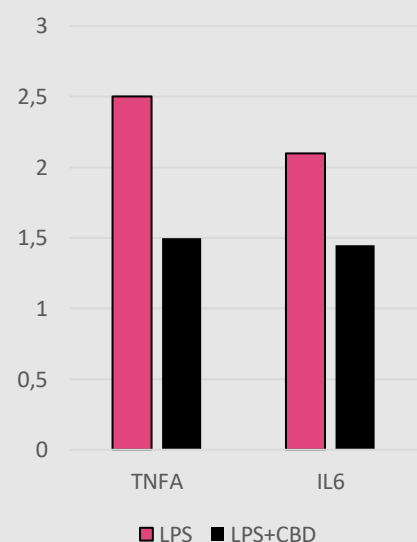


Figure 1. Human sebocyte mRNA expression of IL6 and TNFA after 24-hour LPS treatment with or without CBD.

The overproduction of sebum is one of the main causes of acne. CBD helps control the overproduction of lipids (including sebum) in skin cells, which makes it very suitable for oily skin or for treating acne (further enhanced by its anti-inflammatory effect as mentioned above). Ali et al. investigated the use of 3% cannabis seed extract cream on acne in a single-blind clinical study of 11 human patients. Participants applied the cream twice a day for 12 weeks. The results showed a significant improvement in sebum production (figure 2).

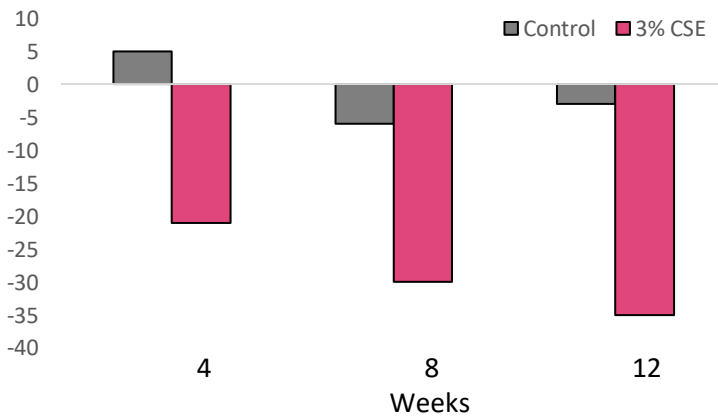


Figure 2. Sebum production in treated patients (4).

Other recommended uses

- Erythema
- Psoriasis
- Pruritus
- Eczema

It can be included in formulations such as creams, shampoos or lip balms.



- 1.- Sheriff, T., Lin, M. J., Dubin, D., & Khorasani, H. (2020). The potential role of cannabinoids in dermatology. *Journal of Dermatological Treatment*, 31(8), 839-845.
- 2.-Gohad, P., McCoy, J., Wambier, C., Kovacevic, M., Situm, M., Stanimirovic, A., & Goren, A. (2020). Novel cannabidiol sunscreen protects keratinocytes and melanocytes against ultraviolet B radiation. *Journal of cosmetic dermatology*.
- 3.- Oláh, A., Tóth, B. I., Borbíró, I., Sugawara, K., Szöllösi, A. G., Czifra, G., ... & Bíró, T. (2014). Cannabidiol exerts sebostatic and antiinflammatory effects on human sebocytes. *The Journal of clinical investigation*, 124(9), 3713-3724.
- 4.- Ali, A., & Akhtar, N. (2015). The safety and efficacy of 3% Cannabis seeds extract cream for reduction of human cheek skin sebum and erythema content. *Pakistan journal of pharmaceutical sciences*, 28(4).

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