

# Cannabidiol-possible treatment option for acne



Despite how common the human skin disease acne vulgaris is we still lack a curative treatment that targets overproduction of sebum, unwanted sebocyte proliferation and inflammation without side effects. One receptor system known to regulate physiological processes is that of the infamous plant *Cannabis sativa*, collectively referred to as phytocannabinoids. This plants receptors consist of endogenous ligands (the endocannabinoids [eCBs]), and enzymes known to be involved in the synthesis and degradation of the eCBs, collectively making up the eCB system (ECS). One of the physiological processes the ECS controls is cutaneous cell growth and differentiation. This study therefore explored the effects of the major nonpsychotropic phytocannabinoid of *Cannabis sativa*, (-)-cannabidiol (CBD), on human sebaceous gland function and determined that CBD behaves as a highly effective sebostatic agent. Administration of CBD to cultured human sebocytes and full thickness human skin organ cultures inhibited the lipogenic actions of various compounds, including arachidonic acid and a combination of linoleic acid and testosterone, and suppressed sebocyte proliferation. CBD also exerted complex antiinflammatory activity. Collectively suggesting that, due to the combined lipostatic, antiproliferative, and antiinflammatory effects, CBD has potential as a promising therapeutic agent for the treatment of acne vulgaris.

[Oláh, A. et al. 2014. Cannabidiol exerts sebostatic and](#)

antiinflammatory effects on human sebocytes. *The Journal of Clinical Investigation.*