Abstract:

Hemp (Cannabis sativa) has a long and extensive history of medical and therapeutic use. Despite this, modern science has only recently come to understand the active ingredient in hemp, cannabidiol, and its modes of action on various ailments. To explore the scientific literature, google scholar and the Cal Poly Pomona library database were explored with the keywords, “cannabidiol,” “CBD,” “therapies,” “phytocannabinoids,” and “endocannabinoid system.” Literature reviews and published experiments were found, most of which indicated effectiveness of CBD in pre-clinical trials using animal models. There were a few clinical trials with very small sample sizes. In summary, more double-blind, clinical trials are needed to further evaluate the effectiveness of CBD and agricultural research is needed to help develop a domestic hemp-CBD production industry.

E-cigarette vaporizers and orally-administered tinctures are two of the most popular ways to ingest CBD-rich hemp extracts.

Conclusion: domestic cultivation for patient access

Peer-reviewed research has recorded the effects and modes-of-action of CBD in animal tests but are still in early phases. These pre-clinical trials, while demonstrative, only lay the groundwork for human trials, which have been very hard to conduct in clinical settings due to anti-drug laws that confuse hemp and marijuana. There is a huge need for more data and more experiments with double-blinds and large sample sizes. That said, the public has started using CBD and the large amount of anecdotal evidence generated by their experiences and testimonials supports the compound’s efficacy in humans. Patient and doctor groups have self-organized to publicize their results and demand improved access. Currently, CBD products are manufactured from extracts of plants grown in the EU and imported to the United States and this has made costs prohibitive for some patients. With Section 7606 of the 2014 Agricultural Act, universities have the opportunity to take the lead and demonstrate the agronomic performance and yields of high CBD hemp grown on US soils. This is absolutely necessary to pave the way for the farmers that will build up a domestic production industry.

References