

C B D

What is CBD (cannabidiol)?

CBD, cannabidiol, is a cannabis compound derived from the plant species commonly called marijuana or *Cannabis sativa* L in Latin. Frequently, cannabis, hemp and marijuana are used interchangeably, however, usually cannabis refers to the entire Hemp Family of plants, marijuana to mean the psychoactive varieties containing over 0.3% THC and hemp to mean the non-psychoactive CBD-rich plants containing below 0.3% THC (Rappaport & Leonard-Johnson, 2014). CBD can be extracted from the Industrial Hemp plant. Commercial CBD products have a THC content below 0.3%, not enough to produce a "high". Cannabis plants have varying ratios of THC to CBD and certain ratios work better with a specific ill illness and are prescribed accordingly (Rappaport & Leonard-Johnson, 2014). High CBD with below 0.3% THC preparations can conveniently be purchased without a doctor's prescription and are legal in every state (Rappaport & Leonard-Johnson, 2014).

CBD Research:

CBD does not interfere with several psychomotor and psychological functions in humans. CBD does not affect heart rate, blood pressure, or performance in the verbal paired-associate learning test as measured by recall score at doses up to 600mg (Bergamaschi, M., Costa Queiroz, R., Crippa, J. & Zuardi, A., 2011). This research suggests and supports that CBD has different effects than the more well-known effects of THC.

CBD exerts anti-proliferative and pro-apoptotic effects in tumor cell lines (Bergamaschi, M., Costa Queiroz, R., Crippa, J. & Zuardi, A., 2011). This might sound like a mouthful so, basically this paper is suggesting CBD has the ability to reduce tumors and some cancers in rats. The National Cancer Institute, updated information on their FAQ page on July 16, 2015 that "Cannabis has been shown to kill cancer cells in the laboratory", however, this was a preclinical study and there is not enough evidence yet to recommend cannabis for the treatment of cancer (Snopes, 2015).

A previous case report of a teenager diagnosed with schizophrenia who experienced severe side effects after treatment with conventional antipsychotics demonstrated significant improvement of symptoms with no adverse effects after hospitalization and 4 weeks of treatment with increasing doses of CBD up to 1,500mg/day ((Bergamaschi, M., Costa Queiroz, R., Crippa, J. & Zuardi, A., 2011). Thus, CBD may also treat symptoms of mental disorders.

Research evaluated whether cannabidiol, which has been reported to function as an antioxidant, can protect the liver from alcohol-generated oxidative stress-induced steatosis. Cannabidiol can prevent acute alcohol-induced liver steatosis in mice (Yang, L., Rozenfeld, R., Wu, D., Devi, L. A., Zhang, Z., & Cederbaum, A., 2014). Steatosis means infiltration of liver cells with fat, associated with disturbance of metabolism by, for example, alcoholism, malnutrition, pregnancy, or drug therapy.

Of course there are many aspects of CBD that are under research and much more that is pretty well accepted, here we just wanted to compile some real research that you may have not heard about yet.

References:

- Bergamaschi, M., Costa Queiroz, R., Crippa, J. & Zuardi, A. (2011). Safety and Side Effects of Cannabidiol, a Cannabis Sative Constituent. *Current Drug Safety*. Retrieved online.
- Rappaport & Leonard-Johnson (2014). *CBD-Rich Hemp Oil: Cannabis Medicine is Back*. ISBN: 1499533357.
- Snopes. (2015). *Cannabis Kills Cancer in the Laboratory*. Retrieved online.
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