

Cannabidiol (CBD) and Its Precursor CBDA Inhibit Intestinal Contractions

First study to look at CBDA effects in the GI tract

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A new study published last month in the journal called "Archives of Pharmacal Research" reports that CBD, the non-psychoactive compound in the cannabis plant, and CBDA, its precursor, reduced resting tension and the magnitude of contractions in rodent intestines.

It is well known that the cannabis plant has been used for centuries to treat many disorders, including gastrointestinal complaints. Patients with inflammatory bowel disease and irritable bowel syndrome report that they have improvement of their GI symptoms with the use of cannabis, with less cramping, less diarrhea, better appetite, and less constipation. Patients with Crohn's disease were reported in a recent survey to decrease their use of medications and also to avoid surgical intervention with the use of cannabis.

In laboratory studies, CBD was shown to inhibit GI transit in disease models. CBD has also been shown to be protective against the development of colitis in an experimental model. Other studies showed that CBD inhibited the delay of gastric emptying and small intestinal transit in mice with severe infection. All of these investigations show that CBD clearly has beneficial effects on the intestinal tract.

CBDA is the precursor to CBD; heating CBDA changes it to CBD. The effects of CBDA on the GI tract has not been previously studied.

Researchers in this new study tested the effects of CBDA and CBD on intestinal segments in their resting states and when triggered to contract with electrical field stimulation or by medication. Both compounds were found to inhibit the contractions of the intestines.

Further studies are needed to elicit the exact way that CBDA and CBD work on the intestinal tract. However patients are finding that the science that is being published supports their experience and the benefits that they have with cannabis use.

Currently patients are able to find CBD-rich strains of cannabis as there is a big push in the medical cannabis community to test cannabis for its cannabinoid profile - the potency of THC and the potency of CBD - so that patients can choose medication that would most benefit their particular illness.

Sources:

Cluny N, et al. The Effects of Cannabidiolic Acid and Cannabidiol on Contractility of the Gastrointestinal Tract of *Suncus murinus*. *Archives of Pharmacal Research* (2011) 34: 1509-1517

de Filippis D, et al. Effect of cannabidiol on sepsis-induced motility disturbances in mice: involvement of CB1 receptors and fatty acid amide hydrolase. *Neurogastroenterology & Motility* (2008) 20: 919-927

Borrelli, F. et al. Cannabidiol, a safe and non-psychoactive ingredient of the marijuana plant *Cannabis sativa*, is protective in a murine model of colitis. *Journal of Molecular Medicine* (2009) 87: 1111-1121