

# Can cannabinoids be used to treat cancer?

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Credit: Mary Ann Liebert, Inc., publishers

When cannabinoids activate signaling pathways in cancer cells they can stimulate a cell death mechanism called apoptosis, unleashing a potent anti-tumor effect. Yet cannabinoids, which have also shown strong activity against human tumor tissue grown in animal models, have undergone minimal testing in patients. Their potential use as antitumor drugs and/or to boost the effectiveness of conventional cancer therapies is examined in an article published in *The Journal of Alternative and Complementary Medicine (JACM)*.

In "A Review of the Therapeutic Antitumor Potential of Cannabinoids," coauthors Višnja Bogdanovic and Jasminka Mrdjanovic, Oncology Institute of Vojvodina (Sremska Kamenica, Serbia), and Ivana Borišev, University of Novi Sad (Serbia) present the results of a detailed survey of the medical and scientific literature focused on the effects of cannabinoids on signaling pathways involved in tumor cell proliferation and death. The researchers review the mechanisms of anticancer activity of cannabinoids, discuss the similarities and differences between exogenous (plant-derived) and endogenous cannabinoids, report on the clinical studies conducted to date to assess the anti-tumor effects of these compounds, and consider the possible adjuvant properties of cannabinoids in [cancer](#) treatment.

"Although medical cannabis is well-supported in the literature for symptom reduction from [cancer treatment](#) or the disease itself, there are many claims that cannabis can treat cancer itself," says Leslie Mendoza Temple, MD, ABOIM, University of Chicago Pritzker School of Medicine and Medical Director, Integrative Medicine Program. "So far, this is based on only a handful of small human studies, anecdote, or laboratory research. This article nicely summarizes some of the work done in the lab for an understanding of cannabis' potential anti-cancer mechanisms, while pointing to the paucity of human trials." Dr. Temple adds, "Federal rescheduling of cannabis is critical so we can study its effects in humans and determine cannabis' direct or indirect effects on

[cancer cells.](#)"

"The value of the review from Bogdanovi?, Mrdjanovi?, and Borišev is describing the evidence landscape that is generating claims for this very political herb," says *JACM* Editor-in-Chief John Weeks, johnweeks-integrator.com, Seattle, WA. He adds: "The evidence supports freeing researchers to provide us with more answers."

**More information:** Višnja Bogdanović et al, A Review of the Therapeutic Antitumor Potential of Cannabinoids, *The Journal of Alternative and Complementary Medicine* (2017). [DOI: 10.1089/acm.2017.0016](#)

Provided by Mary Ann Liebert, Inc

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