

Vaping cannabis may expose users to carcinogenic compounds

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The Journal of Alternative and Complementary Medicine publishes controlled trials, observational studies, scientific reviews and leading commentary intended to help medical organizations and governmental organizations optimize the use

of integrative products, practices, and practitioners in patient care and in delivery and payment strategies. Credit: Mary Ann Liebert, Inc., publishers

New research shows that the agents commonly mixed with cannabis oil for vaping can also produce cancer-causing compounds when heated. The effect is similar to the potential health risks linked to cigarette smoke and agents used in e-cigarettes. The new study demonstrates that exposure to harmful levels of formaldehyde can come with a single inhalation of vaporized cannabis oil. The research is published in *The Journal of Alternative and Complementary Medicine* (JACM), a peer-reviewed publication from Mary Ann Liebert, Inc., publishers.

In the article entitled "Carbonyl Compounds Produced by Vaporizing Cannabis Oil Thinning Agents," William Troutt, NMD and Matthew DiDonato, PhD, Medical Marijuana Research Institute, Tempe, AZ, found that one inhalation of the vapor produced by heating polyethylene glycol (PEG) 400 put an individual at risk for 1.12% of the daily formaldehyde exposure limit. The researchers tested four thinning agents commonly used to vaporize cannabis oil—propylene glycol, PEG 400, vegetable glycerin, and medium chain triglycerides and the levels of three compounds that have the potential for serious health effects in the vapors produced when the agents were heated to the temperature needed to vaporize cannabis oil.

"Users should be aware of potential harms of using vaporized cannabis oils and know what thinning agents are used in the products they consume, as we learn more about their effects when vaporized and inhaled," says Leslie Mendoza Temple, MD, Clinical Assistant Professor, The University of Chicago and specialist in Integrative Medicine, NorthShore Medical Group, Glenview, IL.

"The study underscores how consumers using botanical products- including cannabis-are served to be aware of the agents used to extract their clinical or recreational value says JACM Editor-in-Chief John Weeks, johnweeks-integrator.com, Seattle, WA.

More information: William D. Troutt et al, Carbonyl Compounds Produced by Vaporizing Cannabis Oil Thinning Agents, *The Journal of Alternative and Complementary Medicine* (2017). [DOI: 10.1089/acm.2016.0337](https://doi.org/10.1089/acm.2016.0337)

Provided by Mary Ann Liebert, Inc

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