Does oral cannabidiol convert to THC, a psychoactive form of cannabinoid, in the stomach?

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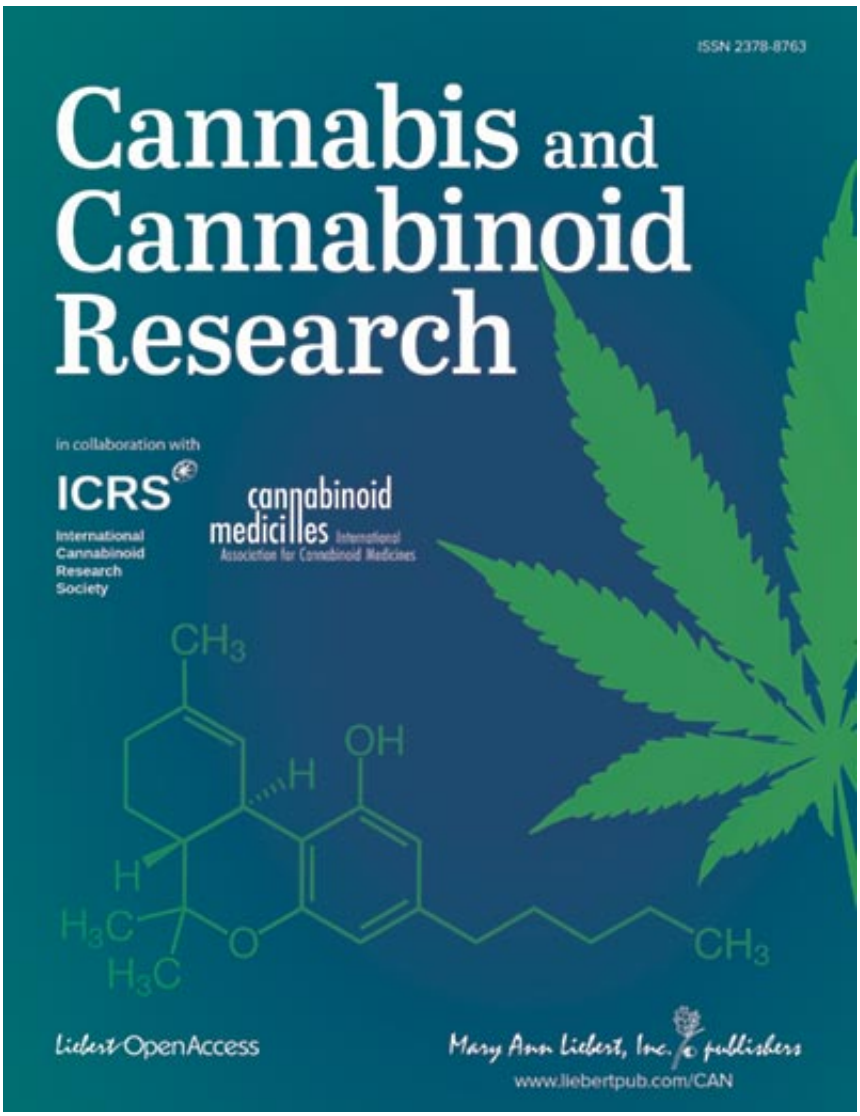

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A new study demonstrating the conversion of oral cannabidiol (CBD) to the psychoactive component tetrahydrocannabinol (THC) in the presence of gastric fluids could explain why children given CBD to treat epilepsy had an unexpectedly high rate of adverse effects such as sleepiness and fatigue. The study, "Identification of Psychoactive Degradants of Cannabidiol in Simulated Gastric and Physiologic Fluid", is published in *Cannabis and Cannabinoid Research*.

To test whether cannabidiol delivered orally could be converted to THC by the acidic fluids in the stomach, researchers compared the by-products of CBD formed when it was exposed to normal physiological conditions or to simulated gastric fluids in the laboratory. John Merrick and Brian Lane, Pace Analytical Services (Oakdale, MN), Terri Sebree, Carol O'Neill, and Stan Banks, Zynerba Pharmaceuticals (Devon, PA), and Tony Yaksh, University of California, San Diego (La Jolla), suggest the need for alternative delivery methods that would reduce the potential for psychoactive cannabinoids to form.

"It is still not clear whether the human stomach can convert CBD into THC, but this study provides important confirmatory evidence that this may be the case," says Editor-in-Chief Daniele Piomelli, PhD, University of California-Irvine, School of Medicine.

More information: John Merrick et al, Identification of Psychoactive Degradants of Cannabidiol in Simulated Gastric and Physiological Fluid, *Cannabis and Cannabinoid Research* (2016). DOI: 10.1089/can.2015.0004

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