

Study examines cannabis' effects on brain neurochemistry

August 7 2019



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A new *Addiction Biology* study provides the first evidence of a blunted response to stress-induced dopamine signaling in the brain's prefrontal cortex in individuals at high risk for psychosis who regularly used cannabis.

Little is known about the effects of cannabis on brain neurochemistry, and specifically about its impact on dopamine signaling. Of note, a recent analysis found a dose-response relationship between higher cannabis use and increased risk for schizophrenia, a condition associated with abnormal dopamine synthesis and release in the brain.

This latest study's results are important given the global trend to legalize cannabis and the growing evidence of the increased risks for psychosis in vulnerable youth.

"Regular cannabis use has a profound effect on cortical dopamine function, in particular in relation to the [stress response](#), which is critical for [young adults](#) at risk for psychosis," said senior author Romina Mizrahi, MD, Ph.D., of the Centre for Addiction and Mental Health, in Toronto. "These results highlight the need for further research on the impact of cannabis on brain neurochemistry, especially in populations at risk for psychosis."

More information: Christin Schifani et al, Stress-induced cortical dopamine response is altered in subjects at clinical high risk for psychosis using cannabis, *Addiction Biology* (2019). [DOI: 10.1111/adb.12812](#)

Provided by Wiley

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