



Does CBD Really Reduce the Effects of THC? A Clinical Trial Says: Not Necessarily

CBD is sometimes described as a compound that automatically “balances” or reduces the unwanted psychoactive effects of THC. Controlled research suggests that the relationship is considerably more complicated.

In a randomized five-way crossover trial, 37 healthy volunteers received 9 mg oral THC together with placebo or different doses of CBD.

At the highest CBD dose — 450 mg — CBD did not reduce THC’s psychoactive effects. Instead, several subjective, cognitive and psychomotor effects increased. CBD also substantially increased blood exposure to THC and its active metabolite, without improving THC-related analgesia.

Potential application

This study is important for understanding cannabinoid combinations. CBD and THC can interact pharmacokinetically, meaning one cannabinoid may alter how the body processes another. The effect of a combination therefore cannot always be predicted simply from what each cannabinoid does separately.

Reference

Gorbenko AA, Heuberger JAAC, Klumpers LE, de Kam ML, Strugala PK, de Visser SJ, Groeneveld GJ. Cannabidiol increases psychotropic effects and plasma concentrations of Δ 9-tetrahydrocannabinol without improving its analgesic properties. *Clinical Pharmacology & Therapeutics*. 2024;116(5):1289–1303.

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