

Lots of 'THC-free' CBD products contain THC: Study

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You might be getting a little unwanted something extra when you buy a

CBD product at your local grocers or supplements store, a new study warns.

About 60% of CBD products tested in the lab also contain THC (tetrahydrocannabinol), the chemical in pot that causes intoxication, researchers report in the journal *Drug and Alcohol Dependence*.

Most products contained just trace amounts of THC, but those are enough to accumulate in your body and cause you to fail a drug test, said senior researcher Shanna Babalonis, an assistant professor of behavioral science at the University of Kentucky College of Medicine.

Military personnel, professional and [amateur athletes](#), and people in legal disputes like child custody cases could wind up in trouble through no fault of their own, just by using an over-the-counter CBD product, she said.

"THC is not allowed at the Olympics. It's not allowed in many sports organizations. But athletes use CBD because it helps them recover, and it helps them with different facets of their training," Babalonis said. "So I think that one of the key takeaways from this work is to say that the public needs to question whether there's THC in their CBD products."

[Cannabidiol](#), or CBD, is a [chemical compound](#) in marijuana that does not get you high, but has been touted as having a number of potential health benefits.

For this study, Babalonis and her colleagues bought 80 different CBD products from online shops or stores in Kentucky. They subjected each product to nine analyses to determine accurately whether they contained any THC.

They also tested [Epidiolex](#), the only CBD product on the market that is

approved by the U.S. Food and Drug Administration. Epidiolex is prescribed to help control epileptic seizures, and its manufacture is rigorously regulated.

The researchers found that Epidiolex contained a barely detectible amount of THC, just 0.022 milligrams per milliliter.

"So we compared all the other CBD products in that context," Babalonis said. "This is what we found in the FDA-approved product that went through really stringent controls."

They found that 52 of the 80 CBD products contained some amount of THC, and that all of those but five contained THC levels higher than that in Epidiolex.

"If a person does not have a tolerance for THC, these trace amounts—which can accumulate in one's fat cells as the product is used over time—can have an effect on a person," said Pat Aussem, associate vice president of consumer clinical content development at the Partnership to End Addiction in New York City. She was not part of the study.

Some of the CBD products contained enough THC to potentially cause intoxication in some people, particularly if they had no prior experience with pot, Babalonis said.

Eleven products had THC concentrations of greater than 1 milligram per milliliter, and one contained more than 2 milligrams per milliliter.

"That's worrisome because a lot of elderly people do take CBD and are taking a lot of other medications, and they could have high levels of THC in their product," Babalonis said.

She couldn't say why so many CBD products contain [THC](#).

"It's definitely possible to remove all the THC," Babalonis said. "About 30% of the products we tested didn't have any THC in them."

Sloppy manufacturing and poor quality testing could be at fault, she said, but Babalonis suspects some cases might involve consumer manipulation.

"If we're being a little bit cynical, we could think that if people feel an effect from something—if they feel a subjective effect—they might think that the product is working," Babalonis said. "Whereas if you don't necessarily feel any effects from something, you may tend to think it doesn't work."

These results show that stiffer regulation is needed for CBD products, Babalonis and Aussem said.

"Consumers deserve accurate marketing claims and if they choose to buy CBD, to know exactly what's in the product," Aussem said. "It's been like the Wild West for quite some time as CBD products proliferate, advertised for numerous maladies without research to substantiate it and without oversight on quality control."

Of the products tested, 21 were labeled "THC Free." Five of these contained detectable levels of THC, according to the study.

"If you're buying a drink at the grocery store, you would expect when it says there's no alcohol in it, that there's no alcohol in it," Babalonis said. "You wouldn't drink it expecting to feel some alcohol effects or maybe blow positive on a Breathalyzer. This is the same thing."

More information: The U.S. National Institutes of Health has more

about [cannabidiol](#).

Erin Johnson et al, Cannabidiol (CBD) product contamination: Quantitative analysis of Δ 9-tetrahydrocannabinol (Δ 9-THC) concentrations found in commercially available CBD products, *Drug and Alcohol Dependence* (2022). [DOI: 10.1016/j.drugalcdep.2022.109522](https://doi.org/10.1016/j.drugalcdep.2022.109522)

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