

Decaf kills coffee withdrawal symptoms

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Coffee drinkers can take advantage of a new placebo discovery showing decaffeinated coffee quenches withdrawal symptoms in people reliant on their daily caffeine fix.

If you are one of the 90% of adults who drink coffee every day, this

could well be you.

Research conducted by the University of Sydney found [caffeine](#) withdrawal symptoms, such as headache, fatigue, bad mood and irritability, shrank after participants drank decaf—regardless of whether or not they knew it was decaf.

Published in the *Journal of Psychopharmacology*, the research is led by Dr. Llew Mills, a Senior Research Associate at the School of Addiction Medicine, with School of Psychology co-authors Dr. Jessica Lee, Professor Emeritus Robert Boakes and Professor Ben Colagiuri.

"A convincing cup of decaf has the power to reduce withdrawal symptoms a lot when the person drinking it is unaware it's decaf. But our study suggests that even if they are aware it's decaf, their withdrawal still subsides," Dr. Mills said.

For the study, 61 heavy [coffee drinkers](#), who consume three or more cups a day, went without caffeine for 24 hours and had their withdrawal measured.

They were then separated into three groups. Two groups were given decaf, with one group told truthfully they were drinking decaf and the other deceived into thinking it was regular coffee. The third group, a control, was given water.

Three-quarters of an hour later, all participants were asked to rate their withdrawal symptoms again.

"The group we lied to reported a big drop in caffeine withdrawal even though there's no pharmacological reason why it should. Because they expected their withdrawal to go down, it did go down," Dr. Mills said.

"In other words, a placebo effect. We've found this in several studies now.

"What was interesting in this new study is that withdrawal symptoms also reduced even when people knew they were getting decaf. Not as much as the group we lied to, but a significant amount."

This type of reaction is known as an open-label placebo effect, an effect that occurs even when you know you are getting a placebo.

Before they were given their beverages, participants were asked to rate how much they would expect various drinks to reduce their caffeine withdrawal.

Unsurprisingly, people said they expected to experience the greatest reduction from caffeinated coffee. The ratings of expected withdrawal from decaf and water were more surprising.

"Funnily enough, they actually expected water to reduce their withdrawal more than decaf," Dr. Mills said.

"Withdrawal in the group we gave water to didn't drop at all, whereas the people who were given decaf experienced a significant reduction.

"The reduction they experienced was contrary to what they expected would happen when they were given water and decaf."

Dr. Mills and his colleagues concluded this open-label placebo effect was driven by a strong conditioned withdrawal-reduction effect built up over a lifetime of drinking coffee.

He said the pleasing increase in alertness and energy people feel when drinking their daily coffee is just caffeine withdrawal being reversed.

Years of associating the taste and smell of [coffee](#) with withdrawal reduction means decaf can elicit a conditioned withdrawal reduction effect even without the caffeine, and even, it turns out, without the expectation.

Dr. Mills said it was important to note the open-label [placebo effect](#) observed in the study was probably only short-lived—withdrawal wouldn't be reduced by decaf indefinitely.

"But a cup of decaf could help someone who is trying to cut back their caffeine intake to temporarily ride out the worst of the cravings and help them stay caffeine-free," he said.

"This study shows cognitive factors like what you expect, and how much of a drug you think you have in your body, have a big effect on how you experience [withdrawal symptoms](#).

"We did this study to model some of the processes involved in addiction to any drug, including more serious, or harmful, drugs. What we found has some promise for developing new treatments for addiction that integrate [placebo](#) effects."

More information: Llewellyn Mills et al, Reduction in caffeine withdrawal after open-label decaffeinated coffee, *Journal of Psychopharmacology* (2023). [DOI: 10.1177/02698811221147152](https://doi.org/10.1177/02698811221147152)

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