

EDITORS' PICK | Nov 13, 2020, 08:00am EST | 103,519 views

Microdosing Psychedelics Is Trendy, But Does It Work? Here's What Science Says



Amanda Siebert Contributor

Vices

I cover the business and culture of cannabis and psychedelics.

Follow



Listen to this article now

Powered by Trinity Audio



1x

00:00



07:09



Preliminary studies, reviews and anecdotal reports suggest microdosing with psychedelics may have ...

[+] GETTY

Psychedelics have returned from the fringes and entered the [mainstream](#) in a huge way, whether through successful [ballot initiatives](#), on the [stock market](#) or in [Silicon Valley](#). But today, it's not profoundly visual, earth-shattering trips like the ones that inspired Steve Jobs to create [the iPhone](#) that are being hyped. It's microdosing.

Microdosing involves regularly consuming a small, sub-perceptual amount of a psychedelic substance, such as psilocybin mushrooms or LSD.

But when it's endorsed by the likes of [Joe Rogan](#) and [Gwyneth Paltrow](#) (let's not forget the [\\$145,000](#) she had to pay for suggesting you put rocks in your vagina), it's fair to start asking tough questions. Microdosing is trending as companies [ideate products](#) for legal markets that have yet to exist, but what do scientists have to say about it?

Preliminary Literature Suggests Positive Outcomes

[Early studies](#), reviews and anecdotal reports suggest microdosing with psychedelics may have the potential to help with [performance enhancement](#) (including increased [creativity](#) and efficiency), symptoms of [depression](#), greater [pain relief](#), and even [Alzheimer's disease](#). While this is promising, the vast majority is based on surveys. (Only within the last few years have scientists begun to explore the concept of [microdosing](#) with actual [clinical trials](#).)

Support For Mental Health And Substance Use

In February, a [study](#) published in the journal *Psychopharmacology* relied on the results of an international survey to find out whether mental health and substance use disorders could be improved with microdosing.

Conducted in 2018, the online survey asked respondents about their use of microdosing psychedelics for therapeutic purposes, and if it led to positive outcomes. Of 1,102 participants, 57 % of which had been previously

diagnosed with a mental health disorder, 39% said that improving their mental health was their main reason for microdosing with psychedelics. (It's worth noting that of this subgroup, 85% said they had tried other medications or received counselling prior to microdosing.)

BETA

MORE FOR YOU

We Need To Talk About Another Pandemic Mental Health Crisis: Therapist Burnout

Numinus Becomes The First Canadian Psychedelics Company To Legally Harvest Magic Mushrooms

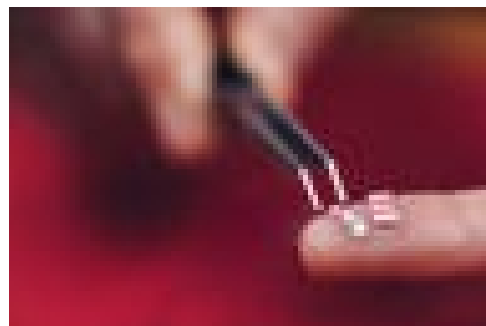
These Four Former Pro Athletes Are Using Psychedelics To Heal Their Brain Injuries

Twenty-one percent said they microdosed to help with symptoms of depression, while 7% said they were self-medicating for anxiety. Another 9% had other mental health conditions they were seeking to treat, and 2% were microdosing to help them stop using other substances.

Results showed that 44% said microdosing improved their mental health significantly, with 50% saying they were able to successfully stop taking antidepressants and almost 40% saying the same about psychiatric meds. Nineteen percent said microdosing resulted in “no perceived changes” to their mental health, and just 1.3% reported that microdosing made their mental health “somewhat worse.”

What Makes A Microdose?

[Another study](#) published in the same journal and conducted in a similar manner (this time with 909 participants) compared survey respondents who had microdosed with LSD, psilocybin, or both with a group that had not microdosed at all. Of the group of microdosers, most



One study found that microdosers reported using an average of 13

reported using an average of 13 micrograms of LSD or 0.3 grams of psilocybin on a one-day-on, two-days-off schedule.

micrograms of LSD, or 0.3 grams of ...

[+] GETTY

BETA

Researchers found that microdosers were significantly less likely to report a history of substance use or anxiety disorders than those that did not microdose, while microdosers were more likely to have reported recent recreational substance use than their non-microdosing counterparts.

Users Say Benefits Outweigh Challenges

The [Global Drug Survey 2019](#) offered a subsection of questions on microdosing to nearly 7,000 respondents who reported psychedelic use. This data was used in an [October 2020 study](#) published in *Psychopharmacology*, which concluded that “the perceived benefits associated with microdosing greatly outweigh the challenges.”

“Our results suggest a partial replication of previously reported benefits and challenges among the present sample often reporting enhanced mood, creativity, focus and sociability,” the study reads. “Counter to our prediction, the most common challenge participants associated with microdosing was ‘None’.”

Still, the conclusions in each of these papers are of a similar tone: double-blind, controlled studies are needed to make concrete conclusions.

Clinical Trials Are In The Works, But Are Few And Far Between

While respected institutions such as [Johns Hopkins](#) and [NYU](#) conduct placebo-controlled clinical trials using larger doses of psilocybin (one ongoing trial at Johns Hopkins is looking at the effects of psilocybin on [anorexia](#) and another study on [depression](#)), trials employing microdosing are not common.

How Small Doses Of Acid Could Affect Time Perception

A double-blind, placebo-controlled [study](#) conducted at the University of London looked at how small doses of LSD affected a person's perception of time. (A purported benefit of microdosing LSD is that it does not have the same time-extending effects afforded by a full tab of acid, which generally contains anywhere from 50 to 150 micrograms and might last 8 to 10 hours, but can feel like forever).

In administering doses of five, ten, and 20 micrograms of LSD to a group of 48 healthy older adults, researchers found that, "LSD conditions were not associated with any robust changes in self-report indices of perception, mentation, or concentration."

The Safety Risks Of Microdosing LSD

A more recent [phase one trial](#) considered how safe and tolerable the same doses would be in older adults. A total of 48 volunteers were given either a placebo or a set dose of LSD administered every four days for 21 days straight.



Public companies such as Champignon Brands and MindMed are interested in developing microdosing ... [+] GETTY

Results of the study were positive and suggested that low doses of LSD "carried no safety risk" and were well-tolerated over the three-week period. Cognitive effects were so minimal that researchers said doses ranging from five to 20 micrograms may have been "insufficient." Either that, or such

doses of LSD, "do not have an effect on cognition in a healthy population."

Can LSD Change The Way We Feel Pain?

In August, a trial published in *Psychopharmacology* used the Cold Pressor Test (submerging hands in ice water) in a group of 24 individuals who had received either a dose of five, ten, or 20 micrograms of LSD or a placebo.

Results showed volunteers who had been given the highest dose were able to leave their hand submerged for significantly longer than others in the trial, and also experienced the least pain or feelings of unpleasantness. “LSD elevated mean blood pressure within the normal range and slightly increased ratings of dissociation, anxiety and somatization,” the study reads. Exactly how LSD influences pain perception remains unclear.

BETA

New Programs, Startups Mean More Science To Come

A [recent trial](#) from the U.K.'s [Beckley Foundation](#) examined how different low doses of LSD might positively affect mood and cognition, and the results were a mixed bag. At 20 micrograms, LSD increased positive mood, friendliness, arousal, and decreased attentional lapses. But it also increased confusion and anxiety for some volunteers. The same was true for some volunteers who were only given five micrograms of the drug.

“Overall, the present study demonstrated selective, beneficial effects of low doses of LSD on mood and cognition in the majority of observations,” it concluded. “Next to that, negative effects like increased anxiety were shown too.”

Between Johns Hopkins, NYU, the Beckley Foundation, and the newly launched research program dedicated to microdosing at the [University of Toronto](#), not to mention the work being conducted by private and [public companies](#) around the world, there's hope ongoing research can come to harder conclusions about the latest fad.

Follow me on [Twitter](#) or [LinkedIn](#). Check out my [website](#) or some of my other work [here](#).



Amanda Siebert

Follow

I am a freelance multimedia journalist focusing on the intersections of business and culture in the cannabis and psychedelics industries. I am a co-founder and...

Read More

