

**PSYCHEDELIC RESEARCH SNAPSHOT**

**Efficiency and  
safety of  
psilocybin for  
substance  
use disorder  
treatment**



**MAPS**  
CANADA 

# Background

- Substance use disorders (SUDs) are a major global health burden, contributing to high mortality, disability, and social costs.
- Standard treatments (CBT, motivational therapy, medications) are often limited by relapse, side effects, access barriers, and inconsistent response.
- Psilocybin, a naturally occurring psychedelic, is being revisited as psilocybin-assisted psychotherapy (PAP).
- Historically: used ceremonially, studied in 1950s, research halted after Schedule I classification, renewed interest during “psychedelic renaissance” (post-2010).

# Objective

Goal: systematically evaluate efficacy and safety of psilocybin for SUDs.

Outcomes assessed:

- substance use reduction
- abstinence rates
- treatment retention

# Knowledge Gap

- Whether benefits depend on psychotherapy vs psilocybin alone
- Optimal dosing regimen and session structure
- Efficacy for SUDs beyond alcohol and tobacco
- Long-term outcomes and durability of effects
- Safety across diverse populations (age, sex, comorbidities)

# Results

## Studies included:

16 published studies + 26 registered clinical trials

## Study focus:

- 43.75% alcohol use disorder (AUD)
- 31.25% tobacco use disorder (TUD)
- 6.25% each for cocaine, opioid, nicotine, and multi-substance

## Study design:

- 31.25% open-label
- 37.5% observational
- 12.5% qualitative
- 6.25% double-blind RCT
- 6.25% pilot fMRI
- 6.3% follow-up Study

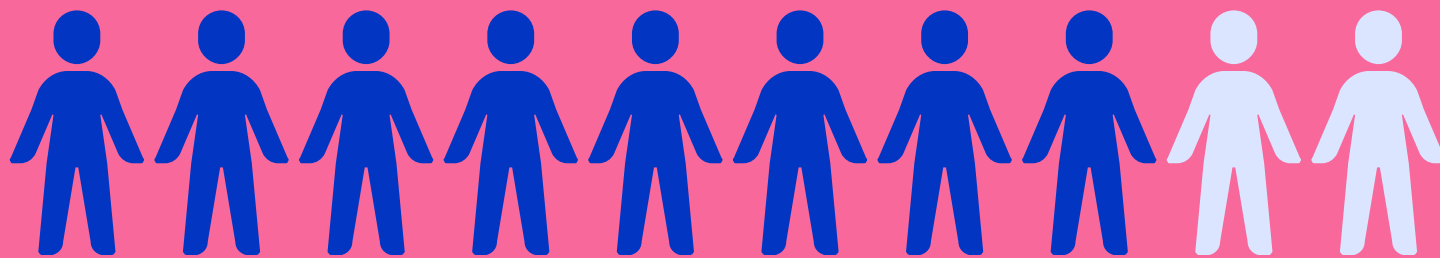
# Main Findings

## Alcohol use disorder (AUD)

- Participants who received psilocybin-assisted psychotherapy had heavy drinking on only 9.7% of days during the study period. They also had higher abstinence rates and fewer drinking-related problems (Bogenschutz et al., 2022)
- Participants in the control group (e.g., diphenhydramine + psychotherapy) had heavy drinking on 23.6% of days (Bogenschutz et al., 2022)
- Qualitative outcomes: improved self-awareness, emotional processing, craving regulation, and self-compassion

## Tobacco use disorder (TUD)

- 60% at ~30 months = participants maintained long-term abstinence at approximately 30 months. (Johnson et al., 2014; Johnson et al., 2017)
- 67% at 12 months = participants remained abstinent at 12 months
- 80% at 6 months = participants who received psilocybin-assisted psychotherapy (PAP) were completely abstinent from smoking at 6 months.



- Qualitative outcomes: reported improvements in self-awareness, emotional processing, craving regulation, coping strategies, and motivation to quit smoking

## Other SUDs (opioid, cocaine, multi-substance)

- Mostly observational or survey-based studies
- Lifetime psilocybin use is linked to lower odds of opioid/nicotine dependence, but evidence for cocaine use disorder is inconclusive

# Limitations

- Few high-quality trials: 1 out of the 16 published studies was double-blind RCT
- Most studies had small sample sizes and were either open-label or observational meaning participants
- Evidence concentrated mostly in AUD and TUD; other SUDs underrepresented
- Heterogeneity prevented meta-analysis – studies differed in design, populations, dosing, psychotherapy protocols, and outcome measures, so results could not be statistically combined
- Long-term efficacy, durability, and generalizability remain unclear
- Demographics skewed: mostly White participants, uneven gender representation, predominantly male

# Key Findings

- Psilocybin is most promising for AUD and TUD, especially when combined with psychotherapy to both other SUDs and psilocybin used without psychotherapy.

## **Effects include:**

- Behavioral outcomes: reduced substance use, higher abstinence, better treatment retention.
- Psychological outcomes: improved self-awareness, emotional processing, coping skills, self-compassion, reduced shame.
- Meaningful or mystical-type experiences often predict better outcomes, especially for tobacco cessation.
- Evidence for other SUDs (opioid, cocaine, multi-substance) is preliminary and mostly correlational.

# Conclusion

- The review is cautiously optimistic: psilocybin-assisted psychotherapy shows real potential for alcohol and tobacco addiction.
- Evidence is preliminary, not definitive; larger, better-designed, longer-term trials are needed.
- 26 ongoing/planned trials will expand the evidence across other SUDs and provide more robust safety and efficacy data.

# Reference

## **Efficacy and safety of psilocybin for the treatment of Substance Use Disorders: A systematic review.**

Meshkat, S., Malik, G., Zeifman, R. J., Swainson, J., Balachandra, K., Reichelt, A. C., Zhang, Y., Burback, L., Winkler, O., Greenshaw, A., Vermetten, E., Mayo, L. M., Tanguay, R., Jetly, R., & Bhat, V. (2025)

Neuroscience & Biobehavioral Reviews, 173, 106163.

<https://doi.org/10.1016/j.neubiorev.2025.106163>