# The ToxIC NOSE (Novel Opioid and Stimulant Exposure)

Report #21 from ToxIC's Rapid Response Program for Emerging Drugs of Abuse

Samantha Gaetani, MD & Kim Aldy, DO, MS, MBA

March 5, 2026

## The Rise of Psilocybin-Infused Chocolate Bars

### Introduction

Psilocybin is a naturally occurring hallucinogenic chemical found in multiple mushrooms, including those within the genus Psilocybe, Panaeolus, Gymnopilus, Conocyte, Incocyte, and Pluetus.[1,2] The most well know of these, the Psilocybe mushroom, grow in Mexico, Central America, and the United States.[1,2] Due to their hallucinogenic properties, mushrooms containing psilocybin have historically been used in religious and healing rituals.[1,2]

The hallucinogenic effects from psilocybin come from its activity at the 5HT-2A serotonin receptor.[1,3] Psilocybin is metabolized to psilocin which leads to increased serotonin release and hallucinations.[1] An oral dose of 4-8mg of

**The ToxIC Novel Opioid and Stimulant Exposure (NOSE) Reports**

Through the ongoing support of the Opioid Response Network (ORN) since 2020, the American College of Medical Toxicology (ACMT) Toxicology Investigators Consortium (ToxIC) has implemented an enhanced sentinel detector field within the ToxIC Core Registry to identify novel and emerging opioid and stimulant exposures. Once an emerging trend or risk is identified, ToxIC releases a quarterly report.

The goal of this project is to disseminate this novel information to the medical toxicology community as well as the ORN as part of a Rapid Response program.

For more information on the ToxIC Core Registry and data collection, please visit: www.toxicregistry.org

psilocybin is approximately equivalent to consuming 2g of dried Psilocybe Mexicana.[1,3] However, the concentration of psilocybin in one dried mushroom can vary widely, even among mushrooms of the same species growing in a similar area.

After consuming a psilocybin containing mushroom, hallucinogenic effects will typically occur within 30 minutes to 2 hours and symptoms may last 2 to 6 hours; however, there have been reports of symptoms lasting up to 12 hours.[1,3] Though death from psilocybin ingestion is rare and usually occurs from trauma or self-harm attempts, there have been reports of fatalities attributed solely to psilocybin toxicity.[3,4]

Over the last 10-15 years, Psilocybin has been investigated in FDA-regulated clinical studies.[1] Researchers are exploring its potential use in treating end-of-life distress, cancer pain, depression, anxiety, and alcohol withdrawal.[1,2] Adverse effects reported in psilocybin clinical trials include worsening depression, suicidal behavior, psychosis, and convulsive episodes, particularly in patients with underlying neuro-psychiatric disorders.[5] Other reported effects include paranoia, headaches, hallucinations, anxiety, nausea, fatigue, and dizziness.[5] Research into the therapeutic use of psilocybin is ongoing and medicinal safety is still not clear.

Outside the clinical setting, psilocybin is used recreationally for its hallucinogenic properties. In the United States, psilocybin is a Schedule I controlled substance, indicating high potential for abuse and no currently accepted medical use.[6] Oregon, Colorado, and New Mexico are among the few states that have decriminalized or legalized psilocybin use.

Several psilocybin-containing products are marketed as hallucinogens, including gummies, chocolate bars, and other snack-like products.[7,8] Vape cartridges infused with psilocybin are also available.[9] Chocolate bars containing psilocybin are gaining popularity, and there have been multiple reports of adverse events associated with their use.[7] These products are unregulated, leading to inconsistent dosing both between products and between batches of the same product.[7] Contamination with non-hallucinogenic toxic mushrooms is also a concern.[7] For example, a case in Tennessee involved a 17-year-old female who ingested a mushroom

chocolate bar thought to contain psilocybin but which contained muscimol from Amanita muscaria. She developed neurotoxicity consistent with muscimol exposure and required intubation and admission to the intensive care unit.[7]

The following case series describes two teenagers who ingested a psilocybin chocolate mushroom bar that resulted in toxicity.

## Case Presentation 1:

A 17-year-old male presented to the emergency department (ED) for altered mental status and agitation. Earlier that day, he had been at the mall with two friends. Several hours later, he was found behaving abnormally, including pulling decorations from trees and exhibiting repetitive speech. When mall security attempted to intervene, the patient became physically aggressive, punching and kicking a security guard. Law enforcement arrived and escorted the patient home. However, he became more agitated, and his parents were unable to de-escalate his behavior. The parents called emergency medical services (EMS), and the patient was transported to the hospital.

In the ED, the patient required multiple sedating medications for agitation, including diphenhydramine, haloperidol, droperidol, and lorazepam. He subsequently became markedly sedated and developed bradycardia and hypotension, necessitating a short course of norepinephrine. He was transferred to a pediatric intensive care unit for further management under the care of the medical toxicology service.

Over the subsequent 24 hours, the patient demonstrated significant improvement in mental status and agitation. Laboratory studies remained within normal limits throughout his hospitalization. Urine liquid-chromatography mass spectrometry (LCMS) testing was positive for psilocin.

When his mental status cleared, he reported that he and his friends had ingested a chocolate mushroom bar in an attempt to experience hallucinations. He denied any prior episodes of similar behavior. His past medical history were notable for anxiety and depression, both controlled with sertraline and hydroxyzine. He endorsed prior marijuana use but denied use on the day of presentation. His friends reportedly ingested the same product. He was ultimately discharged home without further complications.

## Case Presentation 2:

A 17-year-old male, a friend of the patient described above, also presented to the ED with altered mental status. He reported ingesting several pieces of the same chocolate bar for the purpose of experiencing hallucinations. He was found seated on a bench at the mall shortly after the first patient was identified. At that time, he was confused, talking to himself, agitated, and making repetitive statements.

In the ED, he required pharmacologic sedation for agitation, including lorazepam, droperidol, and diphenhydramine. His symptoms resolved more rapidly than those of the prior patient. Laboratory studies were within normal limits, and he had no abnormal vital signs on presentation. Urine LCMS testing was positive for psilocin and 11-nor-9-carboxy-THC. The patient reported smoking marijuana earlier in the day prior to ingestion of the mushroom chocolate bar. He had no known past medical history and was not taking any medications. He was admitted for observation overnight and discharged home the following morning without further issue.

## Discussion

There has been a rise in the use of psilocybin containing products, especially chocolate based formulations. Toxicity includes psychomotor agitation, psychosis, altered mental status, tachycardia, hypertension, worsening depression, suicidal behavior, convulsive episodes,

nausea, vomiting, headaches, trauma, and in rare cases resulting in death.[1,3,4,5,7] Psilocybin use has also been associated with exacerbation of underlying neuropsychiatric disorders.[5]

The cases described above involve two adolescents who ingested the same mushroom chocolate bar and experienced adverse clinical outcomes. One patient had an history of underlying psychiatric disease, while the other did not. Both developed significant agitation and altered mental status that requiring pharmacologic sedation to prevent harm to themselves or to hospital staff. Urine LCMS testing in both patients was positive for psilocin, the active metabolite of psilocybin.

Notably, the parent of the second patient reported a third adolescent who ingested the same mushroom chocolate bar but did not develop significant symptoms and was not brought to the hospital for medical evaluation. Furthermore, the specific product could not be identified, as the third individual reportedly purchased the product and neither of the presenting patients knew the brand or composition.

These cases highlight the potential toxicity and unpredictable clinical effects associated with psilocybin-containing mushroom chocolate bars, particularly given the lack of product regulation and dose consistency.

## Conclusion

Psilocybin containing mushroom chocolate bars and related edible products can cause serious adverse effects that may require hospitalization and medical intervention. These products are often marketed in forms that are appealing to children and adolescents, increasing the risk of unintentional or experimental use. Public education is essential to raise awareness of the dangers associated with these products, including severe agitation and altered mental status, which may result in traumatic injury or death.

## References


1. Nichols DE. Psilocybin: From ancient magic to modern medicine. *J Antibiot (Tokyo).* 2020;73(10):679-686.
2. Strauss D, Ghosh S, Murray Z, Gryzenhout M. Global species diversity and distribution of the psychedelic fungal genus Panaeolus. *Heliyon.* 2023;9(6):e16338.
3. Tuğcan MO, Akpınar AA. Mushroom poisoning: An updated review. *Turk J Emerg Med.* 2025;25(1):10-16
4. Darke S, Duflou J, Peacock A, Farrell M, Hall W, Lappin J. A retrospective study of the characteristics and toxicology of cases of lysergic acid diethylamide (LSD)- and psilocybin-related death in Australia. *Addiction.* 2024;119(9):1564-1571.
5. Hinkle JT, Graziosi M, Nayak SM, Yaden DB. Adverse events in studies of classic psychedelics: A systematic review and meta-analysis. JAMA Psychiatry. 2024;81(12):1225-1235.
6. U.S. Drug Enforcement Administration, Diversion Control Division. Psilocybin (Drug Fact Sheet). June 2020. Accessed February 20, 2026. https://www.dea.gov/sites/default/files/2020-06/Psilocybin-2020.pdf
7. Ebbens EF, Williams SR, Bruccoleri RE, Frazier SB. Neurotoxicity associated with the medicinal mushroom product-Diamond Shruumz: A case report. *Toxicol Rep.* 2024;13:101748.
8. Correia MS, Gonzaga MJ, Temple C, Gerona RR. Quantitative analysis of recreational psychoactive mushroom gummies in Portland, Oregon. *Clin Toxicol (Phila).* 2025;63(4):261-266.
9. Varlet V. Drug vaping: From the dangers of misuse to new therapeutic devices. *Toxics.* 2016;4(4):29


---

## Author Information


Samantha Gaetani, MD
Department of Medical Toxicology
Banner – University Medical Center Phoenix

Kim Aldy, DO, MS, MBA
Department of Emergency Medicine, Division of Medical Toxicology
Baylor University School of Medicine, Dallas, TX


---

## About the *Opioid Response Network (ORN)*:

**Working with communities**

- The SAMHSA-funded Opioid Response Network (ORN) assists states, tribes, organizations and individuals by providing the resources and technical assistance they need locally to address the opioid crisis and stimulant use.
- Technical assistance is available to support the evidence-based prevention, treatment, recovery and harm reduction of opioid use disorders and stimulant use disorders.
- The Opioid Response Network (ORN) provides local, experienced consultants in prevention, treatment, recovery and harm reduction to communities and organizations to help address this opioid crisis and stimulant use.
- ORN accepts requests for education and training.
- Each state/territory has a designated team, led by a regional Technology Transfer Specialist (TTS), who is an expert in implementing evidence-based practices.

**Contact the Opioid Response Network**

To ask questions or submit a technical assistance request:
Visit www.OpioidResponseNetwork.org or Email orn@aaap.org

Funding for this initiative was made possible (in part) by grant no. 1H79TI088037 from SAMHSA. The views expressed in written conference materials or publications and by speakers and moderators do not necessarily reflect the official policies of the Department of Health and Human Services; nor does mention of trade names, commercial practices, or organizations imply endorsement by the U.S. Government.