



Hallucinogens: Factsheet



Evidence ratings:



This resource has undergone expert review. See our Help/Q&A section for more details.

Year: Year 9–10, Year 11–12

Targeted Drugs: Hallucinogens

Tags: LSD, acid, magic mushrooms, tabs, peyote, salvia, psychedelics, mescaline, mushies

Time Allocated: Partial lesson (under 45mins)

Origin: Australian

Cost:

Free

What are Hallucinogens?

Hallucinogens (also known as psychedelics) are a group of drugs that change the way people see and feel reality, causing things like hallucinations. Hallucinations are experiences where people hear or see things that aren't really there, or where perception is altered. For example, colours may be brighter and shapes may appear to be changing or moving. Users may also experience unusual or weird thoughts and feelings.

Hallucinogens can occur naturally or be synthetic. **The most commonly known synthetic hallucinogen is LSD (Lysergic acid diethylamide), also known as acid, trips or tabs. Naturally occurring hallucinogens include magic mushrooms, DMT (Dimethyltryptamine), mescaline (found in peyote), or salvia.**

Personal Stories

"Me and a few mates decided to take a few tabs of acid. Fifty minutes later I collapsed and thought I saw shadows coming towards me. I was screaming and crying for help, but my friends were also high and unable to help."

-Alice, 16

How many young people have tried Hallucinogens?

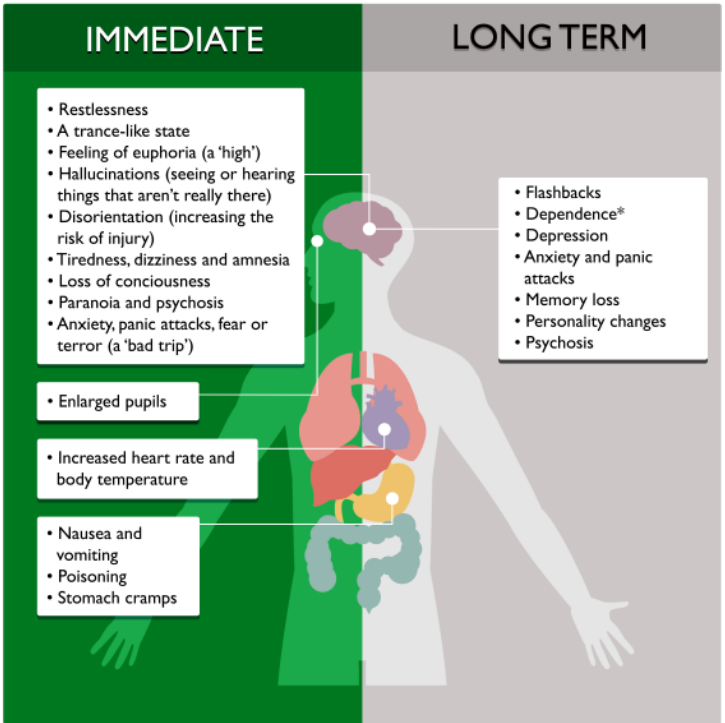
According to the 2022-2023 Australian secondary schools' survey, 1 in 100 students (1%) aged 12-17 used hallucinogens in the past month.

What are the effects of Hallucinogens?

The effects of hallucinogens are extremely unpredictable and changing, even if the person has used the same drug before. Factors that influence the drugs' effects include the person using (e.g. mood, personality), where the drug is taken, and the type of drug. Compared to some other drugs, hallucinogens appear to be less likely to cause dependence. However, there are reports of dependence and difficulties stopping use among a small number of people who use them regularly.

The effects of hallucinogens can be immediate or long-term, as listed in the table below.

Immediate	Long-term
Increased heart rate and body temperature	Flashbacks (spontaneous recurrences of a specific experience). Sometimes these can last for days, weeks or sometimes even years after taking the drug
Enlarged pupils	Dependence (see glossary)
A trance-like state	Depression
Feeling of euphoria (a 'high')	Anxiety and panic attacks
Restlessness	Memory loss
Nausea and vomiting	Personality changes
Hallucinations (seeing or hearing things that aren't really there)	Psychosis (see glossary)
Stomach cramps	
Disorientation (increasing the risk of injury)	
Tiredness, dizziness and amnesia	
Anxiety, panic attacks, fear or terror (a 'bad trip')	
Loss of consciousness	
Paranoia (feeling extremely suspicious) and psychosis, lasting up to several hours after the drug effects have worn off	
Poisoning, particularly with magic mushrooms if the wrong type is used. This can be fatal	



** Compared to some other drugs, hallucinogens appear to be less likely to cause dependence. However, there are reports of dependence and difficulties stopping use among a small number of people who use them regularly.*

Evidence Base

This factsheet was developed following expert review by researchers at the Matilda Centre for Research in Mental Health and Substance Use at the University of Sydney, the National Drug & Alcohol Research Centre at the University of New South Wales, and the National Drug Research Institute at Curtin University.

- Credit to the Home Office for quotes adapted from Talk to Frank.

Sources

1. Scully, M., Koh, I., Bain, E., Wakefield, M., & Durkin, S. (2023). ASSAD 2022–2023: Australian secondary school students' use of alcohol and other substances C. C. Victoria.

2. Rosenthal, S.B., 1964. Persistent Hallucinosi Following Repeated Administration of Hallucinogenic Drugs. American Journal of Psychiatry. 121: p. 238-244.

3. Australian Crime Commission, 2012. Illicit Drug Data Report 2010-11, Australian Crime Commission: Canberra.
4. European Monitoring Centre for Drugs and Drug Addiction, 2011. Drug profile: Hallucinogenic mushrooms. <http://www.emcdda.europa.eu/publications/drug-profiles/mushrooms> accessed 27 October 2012.
5. Cunningham, N., 2008. Hallucinogenic plants of abuse. *Emergency Medicine Australasia*. 20(2): p. 167-74.
6. Kostoudi, S. and Mironidou-Tzouveleki, M., 2006. Hallucinogenic cacti: complicated chemical factories. *Review of Clinical Pharmacology and Pharmacokinetics, International Edition*. 20(2): p. 214-215.
7. National Institute on Drug Abuse, 2009. Hallucinogens: LSD, Peyote, Psilocybin and PCP, National Institute on Drug Abuse, National Institutes of Health: Bethesda, MD.
8. Richardson, W.H., 3rd, Slone, C.M. and Michels, J.E., 2007. Herbal drugs of abuse: an emerging problem. *Emergency Medicine Clinics of North America*. 25(2): p. 435-57; abstract ix.
9. Rosenbaum, C.D., Carreiro, S.P. and Babu, K.M., 2012. Here today, gone tomorrow...and back again? A review of herbal marijuana alternatives (K2, Spice), synthetic cathinones (bath salts), kratom, *Salvia divinorum*, methoxetamine, and piperazines. *Journal of Medical Toxicology*. 8(1): p. 15-32.
10. European Monitoring Centre for Drugs and Drug Addiction, 2011. Drug profile: *Salvia divinorum*. website <http://stda.europa.eu/publications/drug-profiles/salvia> accessed 27 October 2012. 2011.
11. National Drug and Alcohol Research Centre, 2011. Hallucinogens, National Drug and Alcohol Research Centre, University of New South Wales: Sydney.
12. Bruno, R., Matthews, A.J., Dunn, M., Alati, R., McLwraith, F., Hickey, S., Burns, L. and Sindich, N., 2012. Emerging psychoactive substance use among regular ecstasy users in Australia. *Drug and Alcohol Dependence*. 124(1-2): p. 19-25.
13. Shen, H.W., Wu, C., Jiang, X.L. and Yu, A.M., 2010. Effects of monoamine oxidase inhibitor and cytochrome P450 2D6 status on 5-methoxy-N,N-dimethyltryptamine metabolism and pharmacokinetics. *Biochemical Pharmacology*. 80(1): p. 122-8.
14. Weil A.T. and W., D., 1994. Bufo alvarius: A potent hallucinogen of animal origin. *Journal of Ethnopharmacology*. 41(1-2): p. 1-8.
15. Wang, M.J., Tsai, C.H., Hsu, W.Y., Liu, J.T. and Lin, C.H., 2009. Optimization of separation and online sample concentration of N,N-dimethyltryptamine and related compounds using MEKC. *Journal of Separation Science*. 32(3): p. 441-5.
16. Petroski, R., Powell, R. and Clay, K., 1992. Alkaloids of *Stipa robusta* (Sleepygrass) Infected With an *Acremonium* Endophyte Natural Toxins. 1: p. 84-44.
17. Australian Institute of Health and Welfare, 2017. 2016 National Drug Strategy Household Survey report, AIHW: Canberra.
18. Sumnall, H.R., Measham, F., Brandt, S.D. and Cole, J.C., 2011. *Salvia divinorum* use and phenomenology: results from an online survey. *Journal of Psychopharmacology*. 25(11): p. 1496-507.
19. Kremer, C., Paulke, A., Wunder, C. and Toennes, S.W., 2012. Variable adverse effects in subjects after ingestion of equal doses of *Argyrea nervosa* seeds. *Forensic Science International*. 214(1-3): p. e6-8.
20. European Monitoring Centre for Drugs and Drug Addiction, 2011. Drug profile: LSD. <http://www.emcdda.europa.eu/publications/drug-profiles/lsd> accessed 27 October 2012.
21. Solms, H., 1958. The significance of 'comparative pharmacopsychiatric analysis' for the study of the relationship between chemical structure and psychosis due to psychotoxic substances. . *Confinia Neurologica*. 18(2-4): p. 156-158.
22. Nichols, D.E., 2004. Hallucinogens. *Pharmacology and Therapeutics*. 101(2): p. 131-81.
23. Perron, B.E., Ahmedani, B.K., Vaughn, M.G., Glass, J.E., Abdon, A. and Wu, L.T., 2012. Use of *Salvia divinorum* in a nationally representative sample. *American Journal of Drug and Alcohol Abuse*. 38(1): p. 108-13.
24. American Psychiatric Association, 2000. Diagnostic and statistical manual of mental health disorders, fourth edition, text revision, Washington, DC: American Psychiatric Association.
25. Halpern, J., 2003. Hallucinogen persisting perception disorder: what do we know after 50 years? *Drug and Alcohol Dependence*. 69(2): p. 109-119.
26. Stone, A., Storr, C. and Anthony, J., 2006. Evidence for a hallucinogen dependence syndrome developing soon after onset of hallucinogen use during adolescence. *International Journal of Methods in Psychiatric Research*. 15(3): p. 116-130.
27. Stone, A.L., O'Brien, M.S., De La Torre, A. and Anthony, J.C., 2007. Who is becoming hallucinogen dependent soon after hallucinogen use starts? *Drug and Alcohol Dependence*. 87(2-3): p. 153-163.