Positive Choices
Drug and Alcohol Information
Get informed, stay smart, stay safe

Factsheet

# Medical Stimulants and Study Drugs



**Evidence ratings:**

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

**Year:**

**Targeted Drugs:** Medical Stimulants and Study Drugs, Prescription Medication

**Tags:** medical stimulants, prescription medication, study tips

**Origin:** Australian

**Cost:**
Free

## What are medical stimulants?

Stimulants are a type of drug that speed up messages travelling between the brain and body and increase brain activity. They can make a person feel more awake, alert, confident, or energetic. Stimulants include substances like caffeine, nicotine, amphetamines, and cocaine.

Medical (or pharmaceutical) stimulants are medications that are used to manage health conditions like attention deficit hyperactivity disorder (ADHD) or narcolepsy (chronic sleep disorder). These medications require a prescription from a doctor to obtain legally. Examples include methylphenidate (Ritalin, Concerta) and modafinil (Modavigil).

## What is meant by ‘study drugs’?

Sometimes medical stimulants are called ‘study drugs’, because some people think these drugs will increase their concentration or energy for study. However, there isn’t evidence that they improve learning for people without a health condition such as ADHD. The reason these drugs help people with ADHD is because they adjust a chemical imbalance in the brain. For people without ADHD, this adjustment is not needed and so the drugs will not have the same benefits. Taking these drugs can also have a range of unwanted side effects.

## What is non-medical use?

Non-medical use refers to using a medication in a way that it was not prescribed or recommended by a doctor. This is also known as misuse.

This includes:

- taking more than the prescribed amount or taking the medication more frequently
- taking another person’s medication
- sharing prescription medication with others
- combining medication with other drugs, including alcohol
- using medication against medical advice, for example, while driving or using heavy machinery

People may use medical stimulants for many different reasons. These include to increase alertness, concentration, memory, to improve mood, to enhance the effect of other drugs or to prevent or treat withdrawal symptoms from alcohol or other drugs.

If used as prescribed, medical stimulants can be effective medications. However, there are risks, especially if they are not used as prescribed.

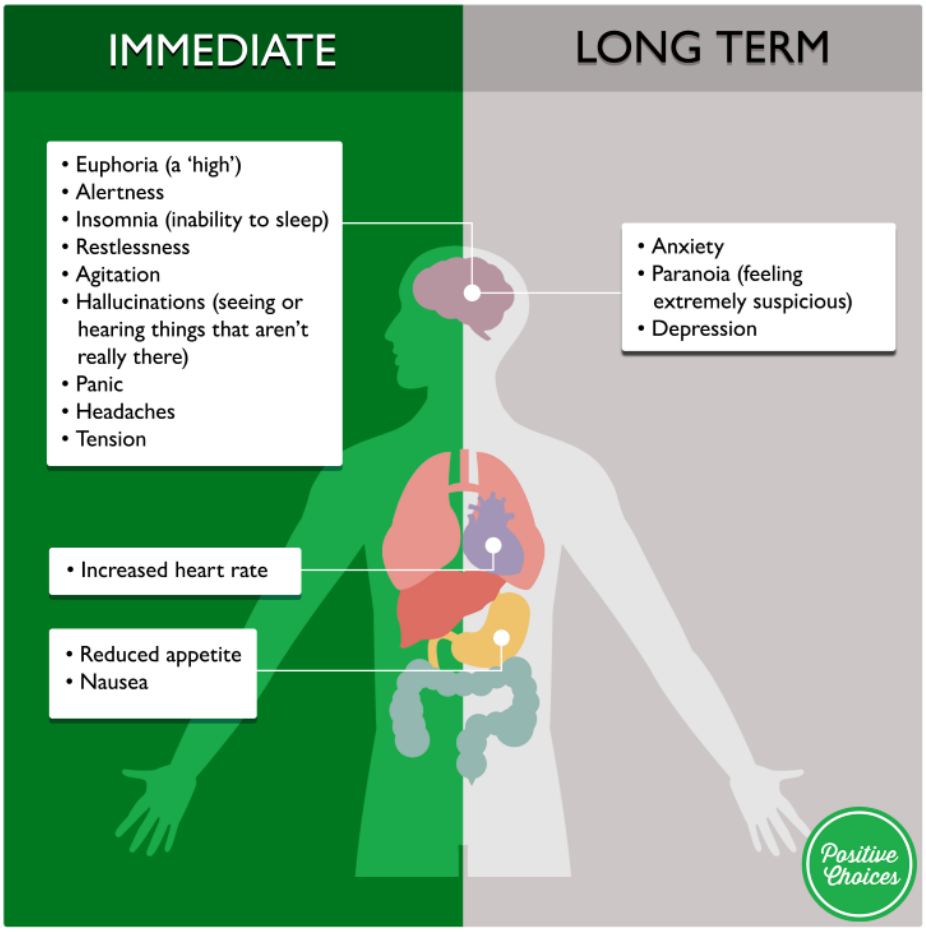
## How many young people use medical stimulants for non-medical purposes?

According to the 2022-2023 National Drug Strategy Household Survey, 1 in 100 14 to 17-year-olds (1%) reported using a medical stimulant for non-medical purposes in the last 12 months.

## What are the possible side effects of stimulants?

- Euphoria (a 'high')
- Alertness
- Increased heart rate
- Reduced appetite
- Insomnia (inability to sleep)
- Restlessness
- Agitation
- Hallucinations (seeing or hearing things that aren't really there)
- Panic
- Headaches
- Anxiety
- Tension
- Nausea
- Paranoia (feeling extremely suspicious)
- Depression

Note: These side effects apply to the use of stimulants whether used as prescribed or non-medical use. Effects will be dependent on the type of stimulant, the dose/amount taken, and the individual taking the drug.




## What are the additional risks of non-medical use?

In addition to the side effects of medical stimulant use, using medical stimulants without a prescription can lead to other harmful effects including dependence, overdose, and hospitalisation. Misusing pharmaceutical drugs in combination with alcohol or other drugs, also known as 'poly drug use', can also increase the risk of serious adverse consequences including overdose and hospitalisation.

Using medical stimulants without a prescription is considered illegal drug use. For more information, visit the Department of Health and Aged Care's Drug laws in Australia' page.

## What to do in an emergency

Signs of a stimulant overdose may include:

- Chest pain
- Vomiting
- Irregular breathing
- Sweating, flushing (red face) or fever (high temperature)
- Palpitations (fast, slow, or irregular heartbeat)
- Seizures (shaking or jerking uncontrollably)
- Extreme anxiety and/or panic
- Hallucinations (seeing or hearing things that aren't really there)

If you think someone has overdosed, get help immediately.
Call 000 for an ambulance.

If they have stopped breathing commence CPR. If they are breathing normally, place them into the recovery position.

For more information on helping someone, see how to help someone who has taken a drug.

## Help is available:

- Call Kids Helpline on 1800 55 1800 for free counselling for children and young people of Australia aged between 5 – 25 years of age, or visit kidshelpline.com.au
- Call The National Alcohol and Other Drug Hotline on 1800 250 015 for free and confidential advice, information and counselling about alcohol and other drugs
- Call the Medicines Line on 1300 633 424 to talk to a pharmacist for free information and advice about prescription, over the counter, and other medications
- Call Family Drug Support on 1300 368 186 for information and support for families of people who use alcohol and other drugs
- For more support services and resources: Where to Get Help

## Coping with study stress

Exams and assignments can be stressful for young people. Here are some effective strategies to help deal with study stress.

## Plan ahead

- Plan to complete small tasks regularly to avoid a build-up of stress at the last minute.
- Make sure to set enough time to complete each task and try to be realistic.

## Sleep

- While it may be tempting to study all night, research studies show that getting enough sleep is linked to improved mood and better performance in school.
- It's recommended that children aged 5 to 13 years get 9 to 11 hours of uninterrupted sleep each night. For young people aged 14 to 17 years, 8 to 10 hours of uninterrupted sleep each night is recommended.
- Set aside some time to relax and wind down before bed to help with a good night's sleep. Try to limit screen time in the hour before bed (e.g., from phone, laptops, TVs).
- There are some effective relaxation techniques that can help manage stress. Beyond Blue have free breathing exercises.

## Eating well

- A healthy diet, such as eating enough protein and fibre, has been shown to improve mental health and is important for learning and memory. The Australian Dietary Guidelines provide evidence-based recommendations.
- Healthy snacks during study sessions can help with motivation and energy.
- Read our factsheet for more information about the link between mental health and lifestyle behaviours.

## Work with friends

- Studying with friends can help with motivation and staying focused. However, some students prefer to work alone – it can take some time to figure out study styles.

## Ask for help

- Sometimes it's hard to figure something out alone, and teachers are there to help when students are stuck.
- If study stress feels overwhelming, there are practical, effective strategies available. Talking with a parent or trusted adult, counsellor, or reaching out to a helpline can provide assistance and guidance.
- ReachOut have a collection of factsheets on exam stress. They also run PeerChat, a free online support service where young people aged 16 and above can chat to a peer worker (available 3-8pm Monday to Thursday and 1-5pm Friday AEST).
- Kids Helpline is available 24/7 at 1800 55 1800 or through WebChat. They provide free counselling for children and young people of Australia aged between 5 – 25 years of age.
- Macquarie University runs the Study Without Stress (SWoS) program, an evidence-based service to help teenagers manage study stress. It is available via telehealth or in person.
- The BRAVE Program is an online evidence-based program designed to help children and teenagers reduce stress and anxiety.
- Parents can visit ReachOut for guidance on supporting their teenagers with study stress, or book a free session for personalised support.
- Fear-Less Triple P Online is a free online course for parents who want to help their child manage anxiety.

## Evidence Base

This factsheet was developed in collaboration with Cracks in the Ice, following expert review by researchers at the Matilda Centre for Research in Mental Health and Substance Use at the University of Sydney. Please click here to download a general community version of this factsheet from the Cracks in the Ice website.

## Sources


Adis. (2018). Stimulants, Depressants and Hallucinogens. Retrieved from: https://adis.health.qld.gov.au/information/drug-types

Alcohol and Drug Foundation. (2023). Stimulants. Retrieved from: https://adf.org.au/drug-facts/stimulants/

Alcohol and Drug Foundation. (2021). Safer use of prescription medications. Retrieved from: https://adf.org.au/insights/safer-prescription-medications/

Australian Institute of Health and Welfare. (2024). Non-medical use of pharmaceutical stimulants in the NDSHS. Retrieved from: https://www.aihw.gov.au/reports/illicit-use-of-drugs/non-medical-stimulants

Australian Institute of Health and Welfare. (2023). Alcohol, tobacco & other drugs in Australia: Pharmaceuticals 2023. Retrieved from: https://www.aihw.gov.au/reports/alcohol/alcohol-tobacco-other-drugs-australia/contents/drug-types/non-medical-use-of-pharmaceutical-drugs

Butler, S. F., Faraone, S. V., Rostain, A. L., Newcorn, J. H., Antshel, K. M., Robbins, R. S., & Green, J. L. (2021). Non-medical use of prescription stimulants among college students: non-oral routes of administration, risk factors, motivations, and pathways. *Frontiers in Psychiatry*, *12*, 667118.

Department of Health and Aged Care. (2021). Physical activity and exercise guidelines for all Australians. Australian Government. Retrieved from: https://www.health.gov.au/topics/physical-activity-and-exercise/physical-activity-and-exercise-guidelines-for-all-australians

Faraone, S. V., Rostain, A. L., Montano, C. B., Mason, O., Antshel, K. M., & Newcorn, J. H. (2020). Systematic review: nonmedical use of prescription stimulants: risk factors, outcomes, and risk reduction strategies. *Journal of the American Academy of Child & Adolescent Psychiatry*, *59*(1), 100-112.

Fincham, G.W., Strauss, C., Montero-Marin, J. & Cavanagh, K. (2023) Effect of breathwork on stress and mental health: A meta-analysis of randomised-controlled trials. *Scientific Reports* 13(432). https://doi.org/10.1038/s41598-022-27247-y

Hulme, S., Bright, D., & Nielsen, S. (2018). The source and diversion of pharmaceutical drugs for non-medical use: A systematic review and meta-analysis. *Drug and alcohol dependence*, *186*, 242-256.

Jagiello, T., Belcher, J., Neelakandan, A., Boyd, K. & Wuthrich, V.M. (2024) Academic Stress Interventions in High Schools: A Systematic Literature Review. *Child Psychiatry & Human Development*. https://doi.org/10.1007/s10578-024-01667-5

Jones, F. & Sutherland, R. (2022). Trends in pharmaceutical stimulant use among a sample of people who regularly use ecstasy and/or other stimulants in Sydney NSW, 2007-2021. *Drug Trends Bulletin Series*. Sydney: National Drug and Alcohol Research Centre, UNSW Sydney.

LeBourgeois, M. K., Hale, L., Chang, A. M., Akacem, L. D., Montgomery-Downs, H. E., & Buxton, O. M. (2017). Digital media and sleep in childhood and adolescence. *Pediatrics*, 140(Suppl 2), S92. https://doi.org/10.1542/peds.2016-1758j

Lovato, N., & Gradisar, M. (2014). A meta-analysis and model of the relationship between sleep and depression in adolescents: recommendations for future research and clinical practice. *Sleep Medicine Reviews*, *18*(6), 521-529. https://doi.org/10.1016/j.smrv.2014.03.006

National Health and Medical Research Council (2013). Australian Dietary Guidelines. Retrieved from: https://www.health.gov.au/resources/publications/the-australian-dietary-guidelines?language=en

O'Neil, A., Quirk, S.E., Housden, S., Brennan, S.L., Williams, L.J., Pasco, J.A., Berk, M., & Jacka, F.N. (2014). Relationship between diet and mental health in children and adolescents: a systematic review. American Journal of Public Health. 104(10):e31-42. https://doi.org/10.2105/AJPH.2014.302110

Papazisis, G., Tsakiridis, I., & Siafis, S. (2018). Nonmedical Use of Prescription Drugs among Medical Students and the Relationship With Illicit Drug, Tobacco, and Alcohol Use. *Substance abuse: research and treatment, 12*, 1178221818802298. https://doi.org/10.1177/1178221818802298

Pharmaceutical Society of Australia. (2019). *Medicine Safety: Take Care*. Canberra: PSA.

Short, M. A., Gradisar, M., Lack, L. C., & Wright, H. R. (2013). The impact of sleep on adolescent depressed mood, alertness and academic performance. *Journal of Adolescence*, *36*(6), 1025-1033.

Treatment for Stimulant Use Disorders: Updated 2021 [Internet]. Rockville (MD): Substance Abuse and Mental Health Services Administration (US); 1999. (Treatment Improvement Protocol (TIP) Series, No. 33.) Chapter 2—How Stimulants Affect the Brain and Behavior. Available from: https://www.ncbi.nlm.nih.gov/books/NBK576548/


© 2026 Positive Choices | Built by Netfront