

Substances At A Glance: Stimulants

In 2019, 37% of Canadians age 15+ who used prescription stimulants reported doing so for non-medical reasons.¹



What are stimulants? Stimulants are a broad category of substances that increase the level of activity of the central nervous system. Stimulants increase alertness, attention and energy. They also elevate blood pressure, heart rate, and breathing. Examples of stimulants include commonly used substances like caffeine and nicotine, as well as over-the-counter decongestants, prescription medications (Ritalin, Adderall, Dexedrine) and illegal drugs (e.g., cocaine & methamphetamine).



Stimulant use among youth: In Canada, 5% of students in grades 7-12 report using prescription stimulants to get high.² Meanwhile, 11% of post-secondary students report past year use of stimulants.³ Of those who do, 34% report problematic stimulant use.³



Why do people use stimulants? Stimulants have various medical uses, and are most commonly prescribed to treat symptoms of ADHD. They can also be prescribed for asthma, respiratory problems, obesity and sleep disorders. Non-medical reasons for students to use stimulants include helping them cram for exams or stay up at night to finish a project for class.³ Athletes or performers may use stimulants to feel more alert and focused. People also using stimulants because they believe they are safer to use than other illegal drugs.



Stimulants and the law: Stimulants like caffeine and over the counter decongestants are legal, while prescription stimulants are legal when used by the person who has a prescription from a healthcare provider. It is both dangerous and illegal to share prescribed stimulant medication with someone else,³ as these may cause serious harm or death for someone who uses them for non-medical reasons.



Energy Drinks and Alcohol: Energy drinks are high in caffeine and increasingly popular to mix with alcohol. It is illegal for producers to directly add caffeine to alcoholic drinks, but natural flavors that contain caffeine (such as chocolate, coffee beans or guarana seed) can be added.⁴ In 2022, 18% of high school age students reported drinking alcohol infused energy drinks.² Caffeine can offset the feelings of intoxication and drowsiness caused by alcohol, which may lead people to drink more than usual. This can increase the risk of dehydration and alcohol poisoning.



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There were nearly 16,000 stimulant related poisoning hospitalizations in Canada between January 2016 - December 2022.⁵



Short and long-term effects: Stimulants can cause feelings of excitement as they affect the brain and other parts of the body. Additional short term effects include insomnia, elevated heart rate, euphoria, increased blood pressure. Use over time can cause or worsen symptoms of anxiety, aggression, anger, suspicion or paranoia.⁶



What are the risks of stimulant use? Taking high amounts of stimulants can cause hypertension, psychotic episodes, fever, seizures, heart attack or stroke. Mixing stimulants with other medications (ie. cold medications or antidepressants) can cause irregular heart beat or dangerously high blood pressure. Stimulant use can also become dependent, and withdrawal symptoms from problematic use can include depression, sleep problems, anxiety, agitation and a loss of energy.⁶



How can I help my kids understand the risks of stimulants? Caffeine is both popular and legal but young people should be reminded to set use limits. Youth should avoid taking caffeine if they are feeling anxious or struggling to sleep, as well as avoid mixing caffeine with alcohol or drugs. If one of your kids has been prescribed stimulants, they may need some supervision. Help them keep track of their pills and ensure that the medications are stored safely to avoid them being misplaced or stolen.



How can someone reduce the risks of stimulant use? Prescribed stimulants should only be used as directed and never shared. Stimulant use can change the way a person's brain operates, so someone with a prescription should never change their dosage or stop using without consulting with their healthcare provider. Stimulants can delay or offset impairment by other substances, which increase the risk of overdose, so stimulants should not be mixed with alcohol or other drugs.



The Good Samaritan Overdose Act: Someone who uses stimulants illegally may not call emergency medical services in the event of an overdose for fear they could get into legal trouble. The Good Samaritan Drug Overdose Act offers some legal protection to anyone seeking emergency support during an overdose, including the person experiencing the overdose and anyone else on the scene. The Act can protect from charges of possession of a controlled substance.

Reference List

1. Canadian Center on Substance Use and Addiction, 2022. [Prescription Stimulants](#).
2. Health Canada, 2023. [Canadian Student Tobacco, Alcohol, and Drugs Survey 2021-2022](#).
3. Government of Canada, 2024. [Canadian Post-Secondary Education Alcohol & Drug Use Survey 2021-2022](#).
4. Government of Canada, 2019. [Regulations Amending the Food and Drug Regulations \(Flavored Purified Alcohol\)](#).
5. Government of Canada, 2023. [Opioid- and Stimulant-related Harms in Canada](#).
6. Government of Canada, 2022. [Prescription Stimulants](#).