Canadian Centre on Substance Abuse
Centre canadien de lutte contre les toxicomanies

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Canadian Drug Summary: Prescription Sedatives and Tranquilizers

Introduction to Prescription Sedatives and Tranquilizers

Prescription sedatives and tranquilizers are central nervous system depressants, meaning that they depress or slow down the body's functions. These medications are mainly used to relieve anxiety and assist with sleep problems. Other medical uses include inducing sedation for surgical and other medical procedures, treatment of alcohol withdrawal, seizure control and relaxation of skeletal muscles. There are three different classes of sedatives and tranquilizers: benzodiazepines, non-benzodiazepine sleep medications and barbiturates. Examples of drugs in each of these three classes are listed in Table 1 with their corresponding generic, trade and street names.

Table 1: Common generic, trade and street names for sedatives and tranquilizers

Drug Class	Generic name	Trade name	Street names
Benzodiazepines	Alprazolam	Xanax®	Z-bars, bars
	Clonazepam	Rivotril®	K-pins
	Diazepam	Valium®	Vs, tranks, downers
	Flurazepam	Dalmane®	tranks, downers, nerve pills
	Lorazepam	Ativan®	nerve pills, tranks, downers
	Temazepam	Restoril®	rugby balls, tems, jellies
	Triazolam	Halcion®	Up Johns, tranks, downers
Non-benzodiazepine sleep medication	Zopiclone	Imovane®	Z-drug
Barbiturates	Pentobarbital	Nembutal®	barbs, M&Ms, nembies
	Amobarbital	Amytal®	angels, blue heavens

Prescription sedatives and tranquilizers are usually taken in pill form; however, some are available as suppositories or prepared as a solution for injection. Some people tamper with the medication to misuse it for the drug's euphoric effects. Tampering involves changing the form of the medication or the route by which it is taken or both.

Effects of Sedative and Tranquilizer Use

Short-term: These medications increase the activity of the neurotransmitter gamma-aminobutyric acid (GABA), which causes a decrease in brain activity. Low to moderate doses of sedatives and tranquilizers can relieve mild to moderate anxiety and have a calming and relaxing effect. Higher doses of these medications can relieve insomnia and severe states of emotional distress, and result in drowsiness and impaired coordination. Other short term effects of sedatives and tranquilizers

include dilated pupils, slurred speech, irregular breathing, decreased heart rate and blood pressure, loss of inhibition, and impaired judgment, learning and memory. These medications can also cause side-effects such as confusion, disorientation, amnesia, depression and dizziness, and, more rarely, agitation and hallucinations. These medications can affect the ability to drive a motor vehicle, and increase the risk of collision, especially if they are taken in combination with alcohol or other drugs.

Long-term: The long-term effects of sedatives and tranquilizers can include chronic fatigue, vision problems, mood swings, aggressive behaviour, slowed reflexes, breathing problems, death due to respiratory depression, liver damage, sleep problems and sexual dysfunction. These drugs also have the potential for addiction and this risk is amplified when they are misused.

Long-term regular use of these drugs should be reduced gradually, with medical supervision. People who are physically dependent on a sedative or tranquilizer will experience withdrawal symptoms if they stop using the drug abruptly. The severity of withdrawal symptoms depends on the type of medication used, the amount used, the duration of use and whether the drug was stopped abruptly. Withdrawal symptoms can include headache, insomnia, tension, sweating, difficulty concentrating, tremors, sensory disturbances, fear, fatigue, stomach upset and loss of appetite. Severe withdrawal symptoms from regular use of sedatives and tranquilizers in high doses can include agitation, paranoia, delirium and seizures.

Sedatives and tranquilizers should generally not be combined with any other medication or substance that causes reduced activity of the central nervous system, including alcohol, prescription opioids and some over the counter cold and allergy medications. Possible overdose symptoms include slurred speech, confusion, severe drowsiness, weakness and staggering, slow heartbeat, breathing problems and unconsciousness.

Legal Status of Sedatives and Tranquilizers in Canada

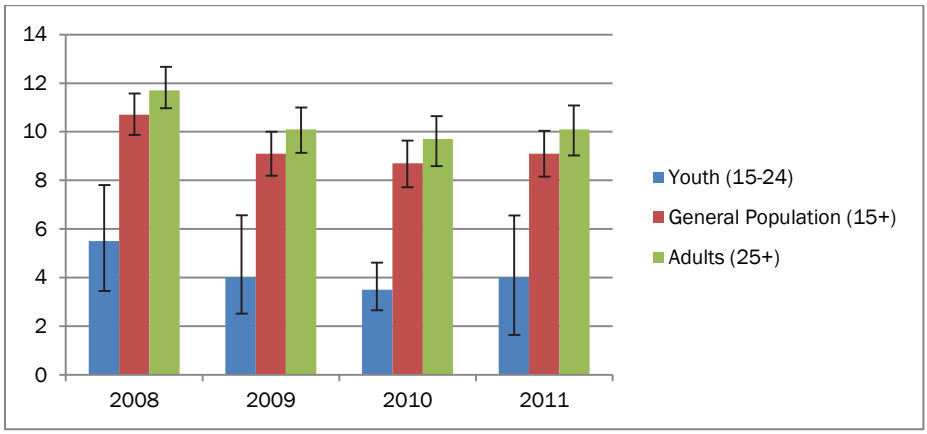
Prescription sedatives and tranquilizers are classified as a Schedule IV drug under the Controlled Drugs and Substances Act (CDSA). Their use is legal only when they are prescribed by specific licenced practitioners and are used by the person for whom they are prescribed. Possession of sedatives and tranquilizers is not, in and of itself, illegal. However, “double doctoring” (i.e., obtaining a prescription from more than one practitioner without telling the prescribing practitioner about other prescriptions received in the past 30 days) can result in 18 months imprisonment. Trafficking, importing, exporting or the production of sedatives and tranquilizers can result in three years imprisonment.[1]

Past-Year Use of Sedatives and Tranquilizers in Canada

- **General population (age 15+):** The prevalence of the use of prescription sedatives and tranquilizers among the general population was 9.1% in 2011 and has remained relatively stable since 2008 (CADUMS 2008, 2009, 2010, 2011).[2]
- **Youth (age 15–24)**: Youth have the lowest rate of prescription sedative and tranquilizer use among all Canadians (4.0% for 2011).[2]
- **Adults (age 25+)**: The rate of prescription sedative and tranquilizer use among Canadian adults was 10.1% in 2011 and has remained relatively stable since 2008.[2]
- **Seniors (age 65+):** Seniors have the **highest rate** of prescription sedative and tranquilizer use among all Canadians (14.4% in 2011).[2]

- **Gender:** Data from the 2011 CADUMS indicates that the prevalence of prescription sedatives and tranquilizers is significantly higher among females (12%) compared to males (5.9%).[2] The higher prevalence of sedative medication use in women might be the result of their longer life expectancies, more frequent use of healthcare professionals and direct-to-consumer marketing strategies that target them.[3]

Figure 1: Prevalence of self-reported prescription sedative and tranquilizer use among Canadians by age category (CADUMS)[2]



Misuse of Prescription Sedatives and Tranquilizers

While sedatives and tranquilizers can be prescribed for therapeutic purposes, they have the potential to be misused because of their psychoactive properties. The risk for psychological and physical dependence (addiction) is increased through accessibility, multiple opportunities for diversion along the supply chain (i.e., the means through which prescription medicines make their way to patients, which can include manufacturers, wholesale distributors and pharmacies), and perceptions of relative safety compared with illicit drugs, among other factors. Those who misuse sedatives and tranquilizers might take the drug in ways other than those prescribed (e.g., using more than prescribed or mixing the medication with alcohol) or tamper with the medication to achieve a more rapid and robust effect.

Past-Year Prevalence in Canada

- In 2010–2011, 1.5% of Canadian students in grades 6 to 12 reported past-year use of tranquilizers to get high and not for medical purposes; 2.5% reported such use of sleeping medicine.[4]
- National data are lacking on the prevalence of the misuse of prescription sedatives and tranquilizers among the adult and senior populations in Canada. However, it has been suggested that women are more likely than men to be prescribed tranquilizers for non-medical reasons, such as coping with stress and grief, or for adjusting to the natural life processes of childbirth and menopause.[4]
- Among First Nations individuals aged 18 and older living on-reserve or in northern First Nations communities across Canada, 5.7% reported past-year use of sedatives or sleeping pills without a prescription in 2008–2010.[5]

- Among First Nations youth aged 12–17 years, 2.2% reported non-prescribed use of sedatives or sleeping pills during 2008–2010.[5]

Past-Year Prevalence Internationally

- **United States (12+):** The past-year prevalence of the non-medical use of prescription tranquilizers and sedatives was 2.0% and 0.2%, respectively, in 2011.[6]
- **Australia (14+)**: The past-year prevalence of the non-medical use of prescription tranquilizers and sleeping pills was 1.4% in 2010.[7]
- Data on the prevalence of prescription sedative and tranquilizer misuse from other countries is not available because of the lack of availability and reporting of data.

Prescription drugs are used widely by adults aged 65 and older, a growing demographic. Because of high prevalence rates of chronic pain and insomnia, seniors are also more likely to receive prescriptions for psychoactive medications, including sedatives and tranquilizers that have the potential for misuse.[8] As sensitivity to the effects of these drugs increases with age, seniors are at increased risk of experiencing falls, hip fractures and motor vehicle accidents because of the confusion and reduced coordination that accompanies the use of these drugs.[9,10] Accurate and reliable data on the prevalence of prescription drug misuse among seniors in Canada is lacking. However, as the baby-boom population ages, a substantial increase in the number of seniors needing treatment for substance misuse problems is anticipated. This prediction is based on a study that estimated that the number of older adults in need of substance misuse treatment in the U.S. could increase from 1.7 million in 2000 to 4.4 million in 2020.[11]

Additional Resources

- First Do No Harm: Responding to Canada's Prescription Drug Crisis
- National Dialogue on Prescription Drug Misuse

[1] *Controlled Drugs and Substances Act*, S.C. 1996, c. 19, http://laws-lois.justice.gc.ca/eng/acts/C-38.8/index.html.

[2] Health Canada. (2012). Canadian Alcohol and Drug Use Monitoring Survey (CADUMS).

[3] British Columbia Ministry of Health. (2008). *The Health and Well-Being of Women in British Columbia: Provincial Health Officer's 2008 Annual Report*. Victoria: Office of the Provincial Health Officer.

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[5] First Nations Information Governance Centre (FNIGC). (2012). *First Nations Regional Health Survey (RHS) 2008/10: National Report on Adults, Youth and Children Living in First Nations Communities*. Ottawa, ON: FNIGC.

[6] Substance Abuse and Mental Health Services Administration. (2011). *Results from the 2011 National Survey on Drug Use and Health: Summary of National Findings*, NSDUH Series H-44, HHS Publication No. (SMA) 12-4713. Rockville, MD: Substance Abuse and Mental Health Services Administration.

[7] Australian Institute of Health and Welfare. (2011). *2010 National Drug Strategy Household Survey Report*. Canberra: Author.

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[9] Woolcott, J.C., Richardson, K.J., Wiens, M.O., Patel, B., Marin, J., Khan, K.M. & Marra, C.A. (2009). Meta-analysis of the impact of 9 medication classes on falls in elderly persons. *Archives of Internal Medicine, 169*, 1952-1960.

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[11] Gfroerer, J., Penne, M., Pemberton, M., & Folsom, R. (2003). Substance abuse treatment need among older adults in 2020: The impact of the aging baby-boom cohort. *Drug and Alcohol Dependence*, 69, 127-135.

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The Canadian Centre on Substance Abuse changes lives by bringing people and knowledge together to reduce the harm of alcohol and other drugs on society. We partner with public, private and non-governmental organizations to improve the health and safety of Canadians.

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