

Substances At A Glance: Fentanyl

Fentanyl was first engineered in 1959 for medical use. Illicitly produced or diverted fentanyl in illegal drugs has led to the drastic increase in fatalities in Canada and the US since 2011.¹



What is fentanyl? Fentanyl is a pain medication from the opioid class of drugs. It is used during surgical procedures and is prescribed to treat severe pain caused by traumatic injuries, serious infections, cancer, etc. Fentanyl is odourless & tasteless. It can be administered as a tablet, injected with a syringe or found in skin patches. Its effects are up to 40 times more potent than heroin and 100 times more than morphine, making it both a powerful medical product and a dangerous substance when used in a non-medical setting.



Fentanyl use among youth: In Canada, approximately 1% of teens and young adults using prescription fentanyl in the last 12 months. Meanwhile, 0.2% of teens and young adults report past 12-month use of illegal fentanyl.²



Why do people use fentanyl non-medically? People report using fentanyl to help with sleep or for the feelings of intense euphoria that it can cause. Other reasons for non-medical use of pain relievers by post-secondary students include curiosity, feeling 'better,' coping with stress, to feel numb or to socialize. In many cases however, a person may not know they're using fentanyl. Fentanyl may be added to illicit drugs without a person knowing it when they buy from a dealer, increasing the risk of overdose, hospitalization and fatality.



What are the effects of fentanyl use? Fentanyl, like other opioids, binds to receptors in the brain that respond to pain and pleasure, though its effects of euphoria are reportedly lower than other opioids.³ A person who uses fentanyl will soon experience a feeling of pleasure that wears off within minutes, followed by a period of calmness lasting up to 2 hours.



Fentanyl and the law: Fentanyl can only be obtained legally through a medical prescription or administered by a healthcare provider in a hospital setting. It is otherwise considered a Schedule I substance under the Controlled Drugs and Substances Act; possession, importation, selling or giving fentanyl to anyone else is illegal and punishable by up to 14 years in prison. Fentanyl enters the unregulated market through illegal importation, illicit labs in Canada or through theft and redistribution of medical fentanyl products (mainly skin patches).³



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There were over 50,000 opioid toxicity deaths reported in Canada between 2016-2024. The percentage of deaths involving fentanyl has doubled over that time.⁴



What are the risks of fentanyl use? Fentanyl overdose can cause a person to stop breathing, fall unconscious and die if untreated. Risks of overdose are much greater if fentanyl is mixed with alcohol or other drugs. People who use fentanyl can also develop a tolerance to it, making them feel a need to use more to feel its effects, increasing the risk of overdose. People affected by problematic fentanyl use can consume up to 15 pills a day, which is a \$300-per-day cost.⁵ Withdrawal symptoms include anxiety, nausea, muscle/bone pain, hot/cold flashes, depression and intense cravings.³



How can someone reduce the risks of fentanyl use? Fentanyl should only ever be used medically as directed by a healthcare professional. A person should not use fentanyl while alone in case of overdose. Do not mix fentanyl with any other drugs or alcohol as this can increase the risk of harm or fatality. Avoid fentanyl products from unregulated or illegal sources. Anyone using fentanyl or any opioids, especially recreationally, should have Naloxone on hand in case of an overdose.



What is Naloxone? Naloxone is a fast-acting drug available as a nasal spray or an injectable needle. It temporarily reverses the effects of an opioid overdose. It is safe for all ages and non-addictive. Naloxone's effects only last 20-90 minutes, while an opioid can remain in the body for a longer period of time. Therefore, if a person overdoses on opioids, they need medical attention even if they have taken Naloxone, as any improvements they show may only be temporary. Take-home naloxone kits are available for free at pharmacies in several provinces.⁶



How can I help my kids understand the risks of opioids like fentanyl? Have a discussion with your kids about the opioid crisis and ensure they understand the serious health risks of consuming any pills or powder they get off the street or online. If your child already uses opioids, it's important they know how to reduce their risk of an accidental overdose. Make a safety plan together, confirm they know the signs of overdose and how to administer Naloxone. Ensure they know that you will support them whenever they need to reach out for help.

1 milligram
=
1,000
micrograms

Medical vs unregulated fentanyl: As little as 2 milligrams (mg) of fentanyl can kill a human adult. Medical, regulated fentanyl doses given by a healthcare professional are much smaller than this, measuring in micrograms (mcg). Unregulated products may contain far more dangerous levels of fentanyl. The United States Drug Enforcement Administration reports that 42% of counterfeit pills tested for fentanyl in the US contain at least 2mg of fentanyl, ranging up to 5.1mg, over twice the lethal amount.⁷

Reference List

1. United States Drug Enforcement Administration, 2020. [Fentanyl](#).
2. Government of Canada, 2024. [Canadian Substance Use Survey 2023](#).
3. Health Canada, 2024. [Fentanyl](#).
4. Government of Canada, 2024. [Opioid- and Stimulant-related Harms in Canada](#).
5. Royal Canadian Mounted Police, 2017. [Fentanyl](#).
6. Health Canada, 2024. [Naloxone](#).
7. USDEA, retrieved May 2024. [Facts about Fentanyl](#).