Substances in the Unregulated Drug Supply

Harm Reduction Manual

Updated: April 29, 2026

First Nations Health Authority
Health through wellness

BC Centre for Disease Control
Provincial Health Services Authority

Table of Contents

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Introduction

This section provides information on common substances in the unregulated drug supply and how these substances work in the body. This section also explains how these substances can affect health, including poisoning, withdrawal, and substance use disorder.

This section also includes links to infographics that explain new, or novel, substances in the unregulated drug supply.

Background

In Canada, the Controlled Drugs and Substances Act (CDSA) regulates the production, possession, distribution, and use of controlled substances.[1]

The unregulated drug supply refers to the many unregulated substances that are made, sold, and used outside of the legal and regulatory system. Unregulated substances are highly variable and unpredictable because no one checks their quality and safety. They often contain harmful, toxic, and potent substances that greatly increase the risks of drug poisoning and other health harms.[2,3]

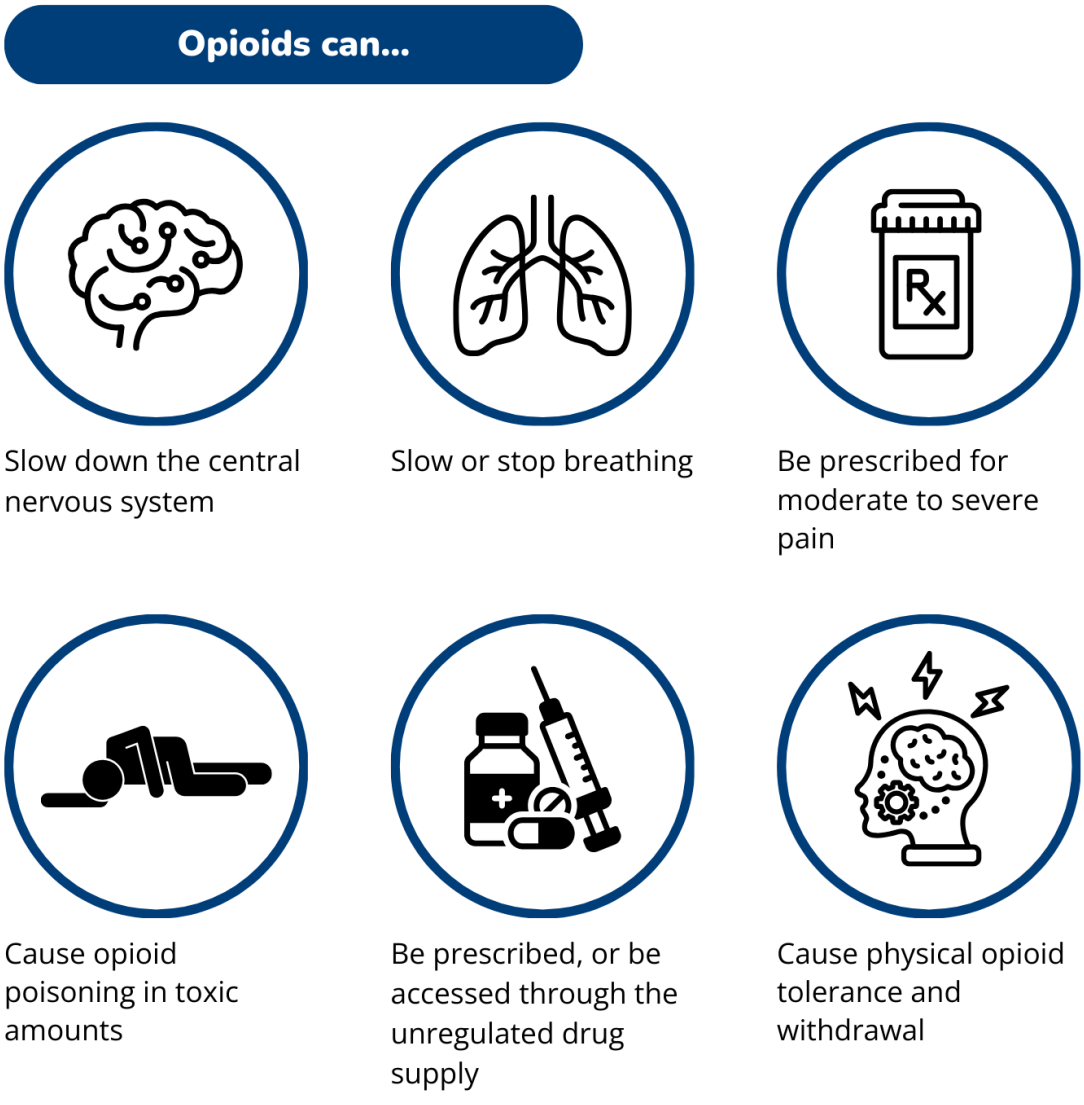
Resources

- Visit the BC Centre on Substance Use (BCCSU) Drug Checking in BC Dashboard for information on substances in the unregulated drug supply and drug checking results in BC.
- Find drug checking locations on the BCCSU Find Drug Checking website.
- Sign up for Toxic Drug and Health Alerts in your region by texting JOIN to 253787 (ALERTS).

Opioids

Opioids are a type of psychoactive substance that slow down the brain and body through the central nervous system.[4] Because of this, opioids are often called "down". Opioids work by attaching to receptors throughout the body and slowing things down, like thinking, movement, and breathing.

Opioids can be prescribed as medication to manage moderate to severe pain or to ease the symptoms of opioid withdrawal. Common prescribed opioids include morphine, hydromorphone, and methadone. People may also use opioids to create feelings of euphoria or relaxation, to cope with emotional or physical pain, or to cause drowsiness.[5]



Opioids in the Unregulated Drug Supply

Some opioids are usually or only made in regulated facilities. Some types of opioids are only produced in the unregulated drug supply. Others (like fentanyl) are available from the unregulated and regulated drug supply. Regulated fentanyl is prescribed by doctors in clinics and hospitals. Unregulated fentanyl is made illegally without quality and safety controls. The high rates of drug poisoning deaths are largely because of unregulated fentanyl in the drug supply.

Drug checking shows that unregulated opioids can often be a mix of unknown or harmful substances.[6] For example, some opioid samples contain sedatives that make people drowsy and less alert.[6] Other opioid samples contain different types of fentanyl that are chemically similar but can be much more potent, like carfentanil.[7]

Health Impacts of Opioid Use

Using opioids can have several serious and unexpected side effects and adverse health effects, including opioid poisoning. Using opioids over a long period of time can lead to a person developing a tolerance to opioids, meaning the body needs stronger doses more often to feel the same effects. Using higher doses more often can lead people to develop physical opioid dependence. This means that when a person with opioid dependences does not get a regular amount of opioids, their body experiences painful symptoms of opioid withdrawal.

Some people who use opioids develop opioid use disorder. [4] This is when a person's opioid use becomes a problem and interferes with daily life. Some people use more than one substance (such as opioids, stimulants, and alcohol) in ways that cause problems for the person. This is called a polysubstance use disorder. Like other substance use disorders, this is a medical condition that can be treated with medications and other therapies.

Opioid Poisoning

An opioid poisoning happens when a toxic amount of opioids overwhelms the body's ability to function, causing breathing to slow, stop, or become abnormal. Brain injury and death can occur when the brain and body do not get enough oxygen.

Opioid poisoning can look different from person to person and from one situation to the next. Most people will present with the 3 key signs of opioid poisoning: slow, stopped, or abnormal breathing (like gurgling, snoring, or choking), decreased level of consciousness, and pinpoint pupils. Other signs include blue or grey/ashen lips and nails, cold and clammy skin, and a stiff neck, chest, or body.

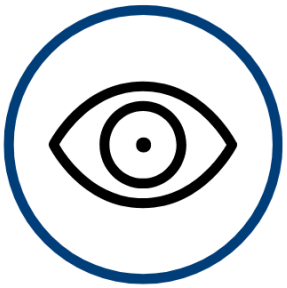
Key Signs of Opioid Poisoning

1. Having Trouble Breathing

- Taking less than 12 breaths per minute, or
- Taking slow, irregular, or shallow breaths, or
- Making unusual sounds such as choking, gurgling, snoring, wheezing, or gasping, or
- Not breathing at all.

2. Not responding

- Being very drowsy, sedated, low energy, or confused, or
- Not responding to voices or painful touch



3. Very small (pinpoint) or constricted pupils

Opioid poisoning is a medical emergency that needs immediate response with rescue breaths and naloxone. An unmanaged opioid poisoning can cause serious injury and death.

See Section 10 - Opioid Poisoning Response for more information on how to recognize and respond to opioid poisoning.

Opioid Withdrawal

When someone with a physical opioid dependence cuts back or stops using opioids, they can experience opioid withdrawal. Opioid withdrawal involves intense and painful physical symptoms, including nausea, vomiting, diarrhea, stomach cramps, sweating, anxiety, and restlessness. These symptoms can start within hours after a person last used opioids, depending on the person and their substance use history and patterns.

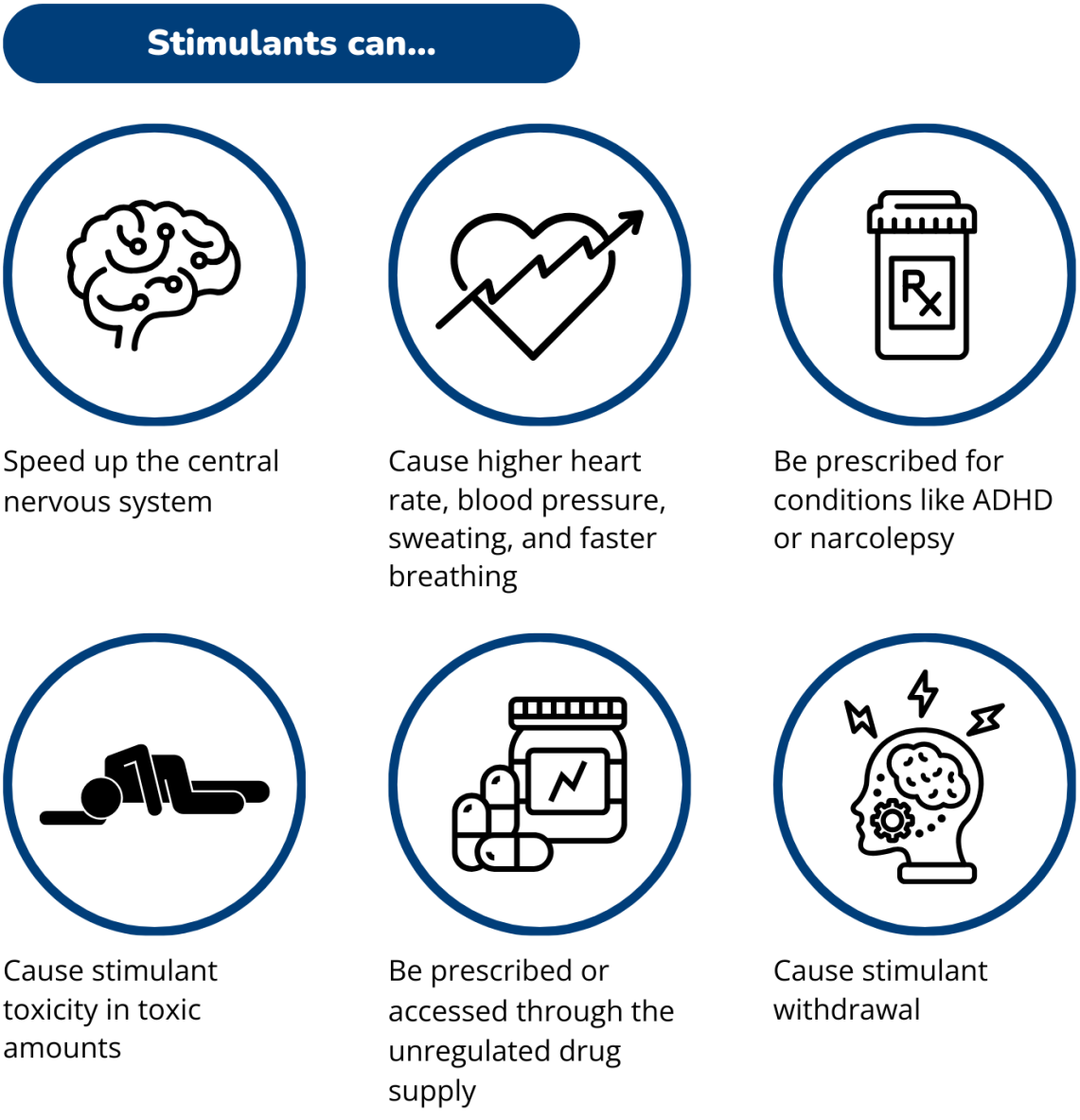
Opioid Use Disorder

Opioid use disorder (OUD) happens when a person develops a problematic pattern of opioid use that significantly interferes with functioning. Not everyone who uses opioids will develop OUD. Research demonstrates that people with opioid use disorder benefit when offered screening, assessment, and treatment, including withdrawal management, social supports, and treatment with opioid agonist treatment (OAT).[23]

Stimulants

Stimulants are a type of psychoactive substance that increase the activity of the central nervous system. They increase blood pressure, heart rate, energy, and focus. Stimulants work by increasing the activity of some chemicals in the brain, called neurotransmitters. This increases many physical and mental functions, including feeling more alert. Some people say this feels like the body is speeding up its "fight or flight" response.[10]

Stimulants can be prescribed as medication to treat several conditions, including attention deficit hyperactivity disorder (ADHD) and narcolepsy. Common prescribed stimulants include methylphenidate (e.g., Ritalin) and amphetamines (e.g., Adderall).



Stimulants in the Unregulated Drug Supply

Some stimulants come from the unregulated drug supply. Common unregulated stimulants include cocaine, crack cocaine, and crystal methamphetamine. People use unregulated stimulants for many reasons, such as to feel euphoria or more confident, to curb hunger, or to stay alert. This is especially common for people who are unhoused who need to protect themselves and their belongings.[11,12]

Drug checking results show that unregulated stimulants often contain unknown or dangerous substances. In some cases, substances that people think are stimulants contain other substances, like opioids or benzodiazepines.[6] When a person takes a depressant and a stimulant at the same time, their effects can clash, like trying to speed up and slow down the heart rate at the same time. These mixed signals can be dangerous for the body. One substance can also mask or cover the effects of the other, leading people to use more and increase the risk of a drug poisoning.[13] If opioids are unknowingly mixed with stimulants, someone who does not typically use opioids and has no tolerance for them can experience an opioid poisoning.

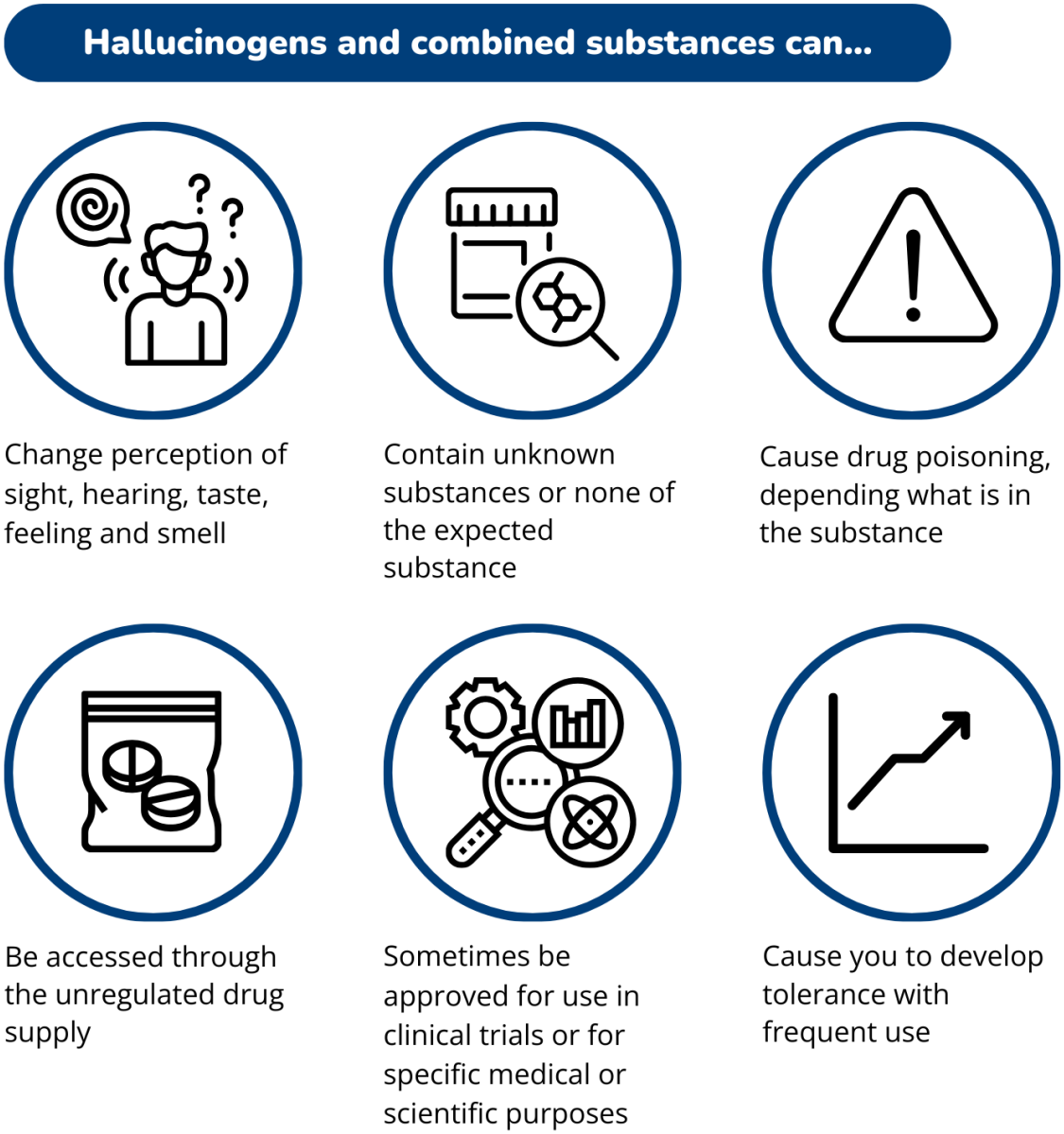
Health Impacts from Stimulant Use

Stimulants can have many effects on the body, which depend on the person and factors like their body weight, the type of stimulant they use, how much they use, their tolerance, if they used other substances, and if they had an empty stomach.[9] These include serious and unexpected effects like experiencing stimulant toxicity (also known as overamping), stimulant withdrawal, or stimulant-induced psychosis, stimulant-related seizure and/or developing a stimulant use disorder.[14] Stimulant toxicity happens when a toxic amount of stimulants overwhelms the body's functioning. See Section 11 - Stimulant Toxicity for more information on how to respond.

Like an opioid use disorder, stimulant use disorder develops when stimulant use becomes a problem and interferes with daily living.

Hallucinogens & Combined Substances

Hallucinogens are psychedelic substances that can change how people experience the world. They can affect sight, hearing, taste, smell, thinking, and feeling. They can affect mood and may cause a person to hallucinate (see or hear things that are not there) especially when taken in high doses. People use hallucinogens in different ways. Some people take a full dose at one time, while others may take small amounts regularly (called microdosing).[22]



Common hallucinogens include:

- Lysergic acid diethylamide (LSD, acid),
- Psilocybin (magic mushrooms),
- Mescaline,
- Dimethyltryptamine (DMT),
- Ayahuasca,
- Phencyclidine (PCP),
- 3,4-methylenedioxymethamphetamine (MDMA, ecstasy), and
- Salvia.

Combined Substances

Some substances, like MDMA, can have the effects of both a stimulant and a hallucinogen. These substances are referred to as a combined substance.[15]

In Canada, many hallucinogens are controlled substances.[1] This means they are not legal. In some situations, hallucinogens can be used in clinical trials and for specific medical or research purposes.[16,17]

Health Effects of Hallucinogen Use

It is difficult to understand all the risks of using hallucinogens because there are many types and different ways people use them.[20] Hallucinogen use can cause several serious and unexpected effects, including experiencing toxicity (depending on the type and amount of substance taken), developing a hallucinogen use disorder, and developing mental health issues, including self harm, anxiety, agitation, confusion, and psychosis.[18,19,20] Since hallucinogens are part of the unregulated drug supply, they can contain harmful or unknown substances. For example, substances sold as MDMA may contain methamphetamine.

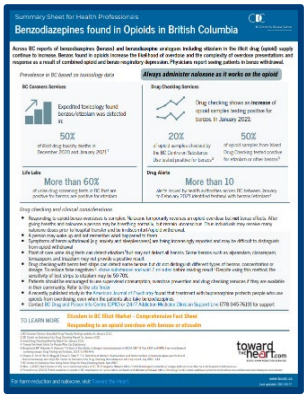
Using hallucinogens often can lead to developing a tolerance. Like other substances, taking a break from using hallucinogens can lower a person's tolerance. Stopping use of hallucinogens does not typically cause physical withdrawal symptoms. However, people can develop psychological dependence on hallucinogens, where they experience cravings and difficulty functioning without the substance.[15]

Novel Substances

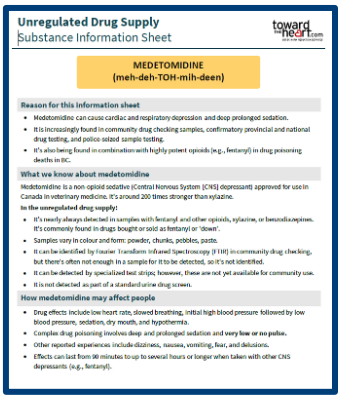
Novel substances are new or unknown chemicals or drugs found in the unregulated drug supply. They may not have specific laws that control their use. They may be added to unregulated substances to help organized crime groups make more money by enhancing the effects of the substance, reducing withdrawal symptoms, or making the substance cheaper.[21]

The next pages include links to infographics and information sheets on novel substances found in BC's unregulated drug supply. Click on the title or photo to access the resource.

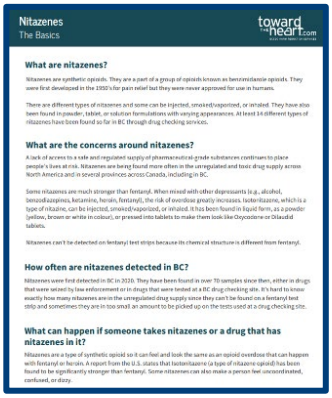
Etizolam



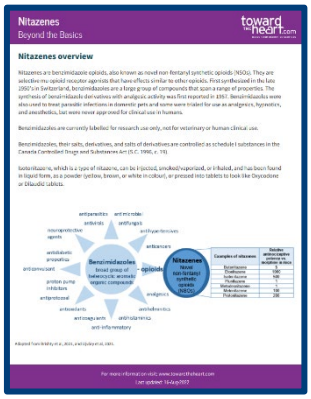
Medetomidine



Nitazenes – The Basics



Nitazenes – Beyond the Basics



Levamisole Information Sheet for the Public


Information Sheet for the Public

Levamisole (Pig de-wormer)

toward the heart .com

What is levamisole?

Crack cocaine can be cut with a **levamisole** a substance used as a pig de-wormer. This can be toxic for humans and seriously affect the immune system, causing rash, fever, and other infections. Levamisole is the same colour as crack cocaine, has no taste, and has a lower melting point (makes it more likely to smoke). This means it is hard to tell if it is in your drugs.

BC's drug checking services found: * 50 of cocaine/crack samples tested in 2016 contained levamisole. A BC harm reduction client survey found 24.4% of same samples in 2015 and 10.7% in 2019 tested positive for cocaine and levamisole.[1]

Contaminated crack and cocaine can cause severe infections and skin colour changes in some people

How can I tell if I may have used crack/cocaine that has been cut with levamisole?

Most people who use crack/cocaine cut with levamisole do not experience symptoms or infections. It is unclear how much levamisole can cause symptoms, but is more likely after long term use.

Symptoms are more commonly seen when people smoke crack/cocaine cut with levamisole, but there have also been reports of severe reactions after snorting or injecting.

1. You notice the skin on your ears, face, arms, legs or anywhere else, has purple or black patches, like a bad bruise.
2. It feels like you have an infection.

Some people may notice:
- A rash (e.g., cheeks, ears, leading lines)
- A fever
- A cough that is getting worse
- Difficulties breathing

If you recently used crack/cocaine and notice any signs and symptoms, tell a trusted healthcare provider right away or go to an emergency department. These infections can get worse very quickly.

It is important to let healthcare providers know you have used crack/cocaine that may have been cut with levamisole, so that unnecessary, invasive testing can be avoided.

Will the infection(s) go away?

Yes, but some people will need to go to hospital to treat an infection. Once you stop using the crack/cocaine cut with levamisole, symptoms usually go away.

Can I still use crack/cocaine again or will I get another infection?

If people experience toxic reactions, it can happen again if cocaine/crack cut with levamisole is used again.

Test a different supply with drug checking services. Talk with your healthcare provider about treatment to leave crack, such as prescription alternatives.

For drug checking services in BC:
- For current information and locations, see: towardtheheart.com/for-peers
- For testing by mail or in person: Getyourdrugstested.com

BC Centre for Disease Control

Levamisole Information Sheet for Healthcare Providers


Levamisole

toward the heart .com

What is Levamisole?

What is the link with cocaine?

How often is levamisole detected in cocaine?

Levamisole Toxicity: Typical presentation and findings

Bottom purpura

Leukopenia

Key, rare evidence of autoantibodies

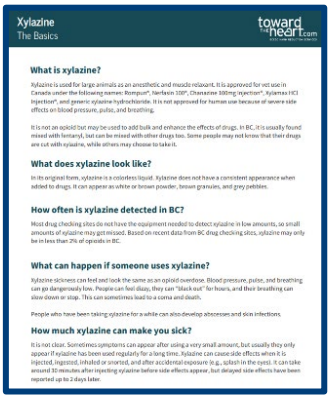
- Pathognomonic: ears. Also the cheeks, arms and legs.
- Dusky purple, with erythematous margins and necrotic centers that can progress to bullae, necrosis and possibly worse
- Can be rapid and extensive, progressing to full-skin thickness ulcers.

- Neutropenia (<1.0 x10⁹ granulocytes/L)
- Agranulocytosis (<0.5 x 10⁹ granulocytes/L), otherwise not often seen outside of cancer and winter therapy
- May present with opportunistic infections, including bacterial and fungal infections and fever

- Antineutrophil cytoplasmic (ANCA), p- and c-antibodies.
- May also see Proteinase 3 (PR3), myeloperoxidase (MPO), Neutrophilic cytoplasmic antigen (NCA) and Human neutrophil-1 database (HNE).
- Note: human leukocyte antigen B27 / B-44 B7 may predispose to complications.

Note: Cocaine and levamisole have similar and synergistic toxic effects. Cocaine-induced toxicity related to snorting or inhalation is most likely to present with systemic symptoms, and more likely to present with involvement of eyes, nose and throat, specifically "Cocaine-induced midline destruction" (CIMD) and/or tracheal ulceration and stridor, then possible perforation to palate/grossly not. CIMD that can exist at its common nidus between mid and nasal cavities. Consider referral for further testing, including ultrasound of sinuses.

Xylazine – The Basics


Xylazine

The Basics

toward the heart .com

What is xylazine?

Xylazine is used for large animals as an anesthetic and muscle relaxant. It is approved for vet use in Canada under the following names: Rompun®, Narcazin 100®, (Chanazine 100mg injection®, Xylamax HCl Injection®, and generic xylazine hydrochloride. It is not approved for human use because of severe side effects on blood pressure, pulse, and breathing.

It is not an opioid but may be used to add bulk and enhance the effects of drugs. In BC, it is usually found mixed with fentanyl, but can be mixed with other drugs too. Some people may not know that their drugs are cut with xylazine, while others may choose to take it.

What does xylazine look like?

In its original form, xylazine is a colorless liquid. Xylazine does not have a consistent appearance when added to drugs. It can appear as white or brown powder, brown granules, and grey pebbles.

How often is xylazine detected in BC?

Most drug checking sites do not have the equipment needed to detect xylazine in low amounts, so small amounts of xylazine may get missed. Based on recent data from BC drug checking sites, xylazine may only be in less than 2% of opioids in BC.

What can happen if someone uses xylazine?

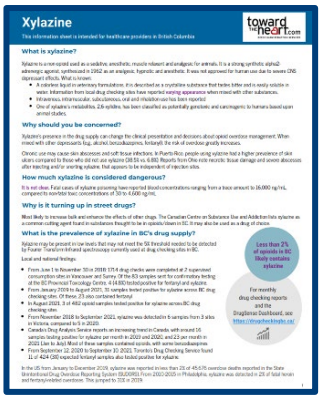
Xylazine sickness can feel and look the same as an opioid overdose. Blood pressure, pulse, and breathing can go dangerously low. People can feel dizzy, they can "black out" for hours, and their breathing can slow down or stop. This can sometimes lead to a coma and death.

People who have been taking xylazine for a while can also develop abscesses and skin infections.

How much xylazine can make you sick?

It is not clear. Sometimes symptoms can appear after using a very small amount, but usually they only appear if xylazine has been used regularly for a long time. Xylazine can cause side effects when it is injected, ingested, inhaled or snorted, and after accidental exposure (e.g., splash in the eyes). It can take around 30 minutes after injecting xylazine before side effects appear, but delayed side effects have been reported up to 2 days later.

Xylazine – For Healthcare Providers


Xylazine

This information sheet is intended for healthcare providers in British Columbia

toward the heart .com

What is xylazine?

Why should you be concerned?

How much xylazine is considered dangerous?

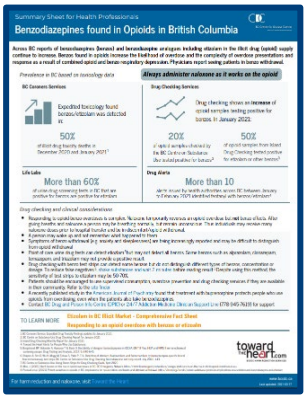
Why is it turning up in street drugs?

What is the prevalence of xylazine in BC's drug supply?

Less than 2% of opioids in BC likely contains xylazine

For monthly drug checking reports and the Drugsense Dashboard, see https://drugchecking.bc.ca/

Benzodiazepines found in Opioids in British Columbia


Summary Sheet for Health Professionals

Benzodiazepines found in Opioids in British Columbia

Always administer naloxone as it works on the opioid

BC Coroners Services

Expedited toxicology found benzos/etizolam was detected in

50%

of illicit drug toxicity deaths in December 2020 and January 2021[1]

Drug Checking Services

Drug checking shows an increase of opioid samples testing positive for benzos, in January 2021:

20%

of opioid samples checked by the BC Centre on Substance Use tested positive for benzos[2]

50%

of opioid samples from Island Drug Checking tested positive for etizolam or other benzos[3]

Life Labs

More than 60%

of urine drug screening tests in BC that are positive for flunitrazepam tested positive for etizolam

Drug Alerts

More than 10

Alerts issued by health authorities across BC between January to February 2021 identified fentanyl with benzos/etizolam[4]

Drug checking and clinical considerations

TO LEARN MORE

Etizolam in BC Illicit Market – Comprehensive Fact Sheet

Responding to an opioid overdose with benzos or etizolam

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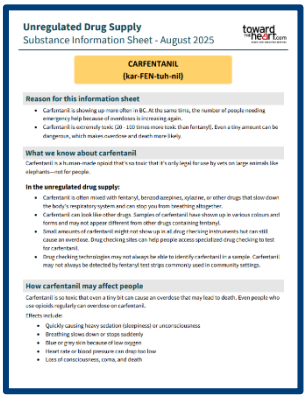
Carfentanil Information Sheet


Unregulated Drug Supply

Substance Information Sheet - August 2025

toward the heart .com

CARFENTANIL

(kar-FEN-tuh-nil)

Reason for this information sheet

- Carfentanil is showing up more often in BC. At the same time, the number of people needing emergency help because of overdoses is increasing again.
- Carfentanil is extremely toxic. (20 - 100 times more toxic than fentanyl). Even a tiny amount can be dangerous, which makes overdose and death more likely.

What we know about carfentanil

Carfentanil is a human-made opioid that's so toxic that it's only legal for use by vets on large animals like elephants—not for people.

In the unregulated drug supply:

- Carfentanil is often mixed with fentanyl, benzodiazepines, xylazine, or other drugs that slow down the body's respiratory system and can stop you from breathing altogether.
- Carfentanil can look like other drugs. Samples of carfentanil have shown up in various colours and forms and may not appear different from other drugs containing fentanyl.
- Small amounts of carfentanil might not show up in all drug checking instruments but can still cause an overdose. Drug checking sites can help people access specialized drug checking to test for carfentanil.
- Drug checking technologies may not always be able to identify carfentanil in a sample. Carfentanil may not always be detected by fentanyl test strips commonly used in community settings.

How carfentanil may affect people

Carfentanil is so toxic that even a tiny bit can cause an overdose that may lead to death. Even people who use opioids regularly can overdose on carfentanil.

Effects include:

- Quickly causing heavy sedation (sleepiness) or unconsciousness
- Breathing slows down or stops suddenly
- Blue or grey skin because of low oxygen
- Heart rate or blood pressure can drop too low
- Loss of consciousness, coma, and death

Glossary

Central nervous system refers to the body system made up of the brain and spinal cord that controls most of the body's functions, including breathing, movement, thinking, and speech.

Controlled substance refers to substances that are controlled under the federal Controlled Drugs and Substances Act (CDSA).

Euphoria refers to a feeling of intense happiness and excitement.

Hallucinate means to experience a sensory perception (like seeing, hearing, or feeling) something that is not there.

Hallucinogen use disorder refers to a problematic pattern of hallucinogen use that significantly interferes with a person's functioning.

Level of consciousness refers to describe a person's level of wakefulness, alertness, and awareness.

Neurotransmitter refers to a chemical messenger in the body that carries signals from one nerve cell to another cell.

Novel substances refers to new chemicals or compounds that may not have specific laws that govern their use.

Opioid dependence refers to a process where the body adapts and becomes reliant on opioids. The person will experience withdrawal if opioids are reduced or stopped.

Opioid poisoning refers to harms that happen to a person because of a toxic amount of opioids that overwhelm that body's normal functioning and cause breathing to slow or stop.

Opioid tolerance refers to a process where the body becomes less responsive to the effects of opioids over time. Tolerance means the person needs higher opioid doses to achieve the same effects.

Opioid use disorder refers to a problematic pattern of opioid use that significantly interferes with a person's functioning.

Opioid withdrawal refers to symptoms that happen when a person with an opioid dependence abruptly stops or reduces use of opioids.

Polysubstance use refers to the use of more than one substance at a time.

Potent or potency refers to how strong a substance is. If a substance is potent, it means a small amount has a large effect.

Psychoactive refers to substances that affect mental processes including thinking, perception, mood, consciousness, cognition, or behaviour.

Stimulant-induced psychosis refers to a mental state caused by the use of stimulants where a person experiences disconnection from reality (psychosis) and symptoms such as hallucinations, delusions, and paranoia.

Stimulant-related seizure refers to a type of seizure that happens because of the overstimulating effect of stimulants on the brain.

Stimulant toxicity (overamping) refers to harms that happen to a person because of a toxic amount of stimulants that overwhelm that body's normal functioning.

Stimulant use disorder refers to a problematic pattern of stimulant use that significantly interferes with a person's functioning.

Stimulant withdrawal refers to the physical and psychological symptoms that can occur after stopping or reducing use of stimulants.

Toxic or toxicity refers to the degree to which a substance can cause harm.

Unregulated drug supply refers to substances (drugs) that come from sources that are not regulated for quality or consistency by an oversight body (such as Health Canada). These substances are produced, distributed, bought, and sold outside of regulated systems.

Unregulated substances refer to substances that are not monitored for consistency or quality. This means the potency and contents of substances can be variable and unpredictable.

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References

1. Branch LS. Consolidated federal laws of Canada, Controlled Drugs and Substances Act. laws-lois.justice.gc.ca. Published August 31, 2022. https://laws-lois.justice.gc.ca/eng/acts/c-38.8/page-9.html
2. Office of the Provincial Health Officer. Alternatives to unregulated drugs: Another step in saving lives. Victoria (BC): The Office; 2024. Available from: https://www2.gov.bc.ca/gov/content/health/ about-bc-s-health-care-system/office-of-the-provincial-health-officer/reports-publications/specialreports/alternatives-to-unregulated-drugs.pdf.
3. What makes Canada's illegal drug supply dangerous? CATIE - Canada's source for HIV and hepatitis C information. Published March 3, 2025. Accessed March 27, 2025. https://www.catie.ca/prevention-in-focus/what-makes-canadas-illegal-drug-supply-dangerous
4. *What Are Opioids?* Accessed March 27, 2025. https://www.ccsa.ca/sites/default/files/2021-06/CCSA-What-Are-Opioids-Poster-2021-en_0.pdf
5. Health Canada. About opioids. www.canada.ca. Published May 2, 2024. https://www.canada.ca/en/health-canada/services/opioids/about-opioids.html
6. Drug Checking Results. BC Centre on Substance Use. Accessed March 27, 2025. https://bccsu-drugsense.onrender.com/
7. Fentanyl Analogues. UN Office on Drugs and Crime. Updated September 9, 2024. Accessed March 27, 2025. https://www.unodc.org/LSS/substancegroup/Details/f7af7249-21d9-4d69-aa9a-66571fd4ee4f
8. Managing Opioid Withdrawal. BC Centre on Substance Use. 2024. Accessed https://www.bccsu.ca/wp-content/uploads/2024/10/BCCSU-Acute-Care-Resources-Withdrawal.pdf
9. Farzam K, Faizy RM, Saadabadi A. Stimulants. PubMed. Published July 2, 2023. https://www.ncbi.nlm.nih.gov/books/NBK539896/
10. 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/
11. Faraone, S. V., Rostain, A. L., Montano, C. B., Mason, O., Antshel, K. M., & Newcorn, J. H. Systematic review: nonmedical use of prescription stimulants: risk factors, outcomes, and risk reduction strategies. Journal of the American Academy of Child & Adolescent Psychiatry. 2020. 59(1), 100-112. Chicago
12. British Columbia Centre on Substance Use. Stimulant Use Disorder Practice Update. 2022. Accessed March 27, 2025. https://www.bccsu.ca/wp-content/uploads/2022/06/Stimulant-Use-Disorder-Practice-Update_June2022.pdf
13. CDC. Polysubstance Use Facts. Stop Overdose. Published April 30, 2024. https://www.cdc.gov/stop-overdose/caring/polysubstance-use.html

14. Managing Acute Stimulant Intoxication and Withdrawal. BC Centre on Substance Use. 2024. Accessed https://www.bccsu.ca/wp-content/uploads/2024/10/BCCSU-Acute-Care-Resources-Managing-Intoxication-Withdrawal.pdf
15. CAMH. Hallucinogens. CAMH. Published 2009. https://www.camh.ca/en/health-info/mental-illness-and-addiction-index/hallucinogens
16. British Columbia Centre on Substance Use. *Psilocybin Overview of Psychedelic Research and Use in Medicine. 2024.* Accessed March 28, 2025. https://www.bccsu.ca/wp-content/uploads/2024/07/psilocybin-psychedelics-at-a-glance.pdf
17. Health Canada. Magic mushrooms. Canada.ca. Published April 3, 2024. https://www.canada.ca/en/health-canada/services/substance-use/controlled-illegal-drugs/magic-mushrooms.html
18. Roberts CA, Osborne-Miller I, Cole J, Gage SH, Christiansen P. Perceived harm, motivations for use and subjective experiences of recreational psychedelic 'magic' mushroom use. *Journal of Psychopharmacology*. 2020;34(9):999-1007. doi:10.1177/0269881120936508
19. Amsterdam J van, Opperhuizen A, Brink W van den. Harm potential of magic mushroom use: A review. *Regulatory Toxicology and Pharmacology*. 2011;59(3):423-429. doi:https://doi.org/10.1016/j.yrtph.2011.01.006
20. Schlag AK, Aday J, Salam I, Neill JC, Nutt DJ. Adverse effects of psychedelics: From anecdotes and misinformation to systematic science. *Journal of Psychopharmacology*. 2022;36(3). doi:https://doi.org/10.1177/02698811211069100
21. Lach-Aidelbaum M. Why is Canada's illicit drug supply so deadly and what's being done about it? CBC. Published March 18, 2022. https://www.cbc.ca/news/canada/canada-illicit-drug-supply-explainer-1.6361623
22. Polito V, Stevenson RJ. A systematic study of microdosing psychedelics. Arnone D, ed. *PLOS ONE*. 2019;14(2):e0211023. doi:https://doi.org/10.1371/journal.pone.0211023
23. British Columbia Centre on Substance Use, BC Ministry of Health, and BC Ministry of Mental Health and Addictions. A Guideline for the Clinical Management of Opioid Use Disorder. Published November 2023. Available at: https://www.bccsu.ca/opioid-use-disorder/