

ABOUT ALCOHOL AND OTHER DRUGS

WHAT IS A DRUG?

A drug is any substance, other than food, taken to change the way the body or the mind functions. Drugs (including alcohol) can be legal or illegal, helpful or harmful. Some drugs may be helpful if used in certain ways (for example, taking prescribed medications as prescribed), and harmful if used in other ways (for example, taking more pills than prescribed or borrowing someone else's prescription).

Mood-altering drugs—also called psychoactive substances—are substances that can change or affect the way a person thinks, feels or acts. These drugs usually have physical effects as well, but the thing that sets them apart from other drugs is that they work on the central nervous system (the brain and the spinal cord), which may result in altered mental processes (e.g., thinking and feeling) and senses. Prescribed drugs in this category can be used to relieve pain, calm nervousness/anxiety, or aid sleep. Some, like nicotine (a stimulant), caffeine (a stimulant), and alcohol (a sedative), can be purchased legally and used by adults. Others, like heroin and cocaine, are illegal street-drugs. Cannabis (marijuana) is currently illegal but will be legal in Canada in late 2018. For some individuals, the consequences of prohibition and the criminalizing of people who use drugs causes as much or more harm than the actual physical effects of the substances they use.

Generally speaking, alcohol and most other drugs that people can develop an addiction to affect the brain's "reward circuit"—triggering the release of large amounts of dopamine (a feel-good neurotransmitter). It is this release of dopamine that causes intense pleasure (also called a "high" or euphoria).



SPECTRUM OF USE

Alcohol and other drug use (also called “substance use”) can be understood as existing on a spectrum. Recognizing the spectrum of use may help in understanding why and how people use alcohol and other drugs.

This spectrum ranges from beneficial (for example, taking prescription medication as prescribed, ceremonial uses of tobacco) through non-problematic (e.g., recreational or casual use, like a glass of wine with dinner), to problematic (which may include use by minors, or negative impacts like binge-drinking or impaired driving) and finally chronic dependent (which would include the development of addictions or substance use disorders).

Beneficial

Use that has positive health, spiritual, and/or social impacts

e.g., pharmaceutical drugs used as prescribed; ceremonial uses of tobacco, peyote, or ayahuasca

Problematic

Use at an early age, or use that may have negative impacts for individuals, family/friends, communities, or society

e.g., use by minors or pregnant women, impaired driving, binge consumption



Non-problematic

Recreational, casual, or other use that has negligible health or social effects

Chronic Dependent

Use that has become habitual and compulsive despite negative health and social effects; e.g., addiction

First Nations Health Authority, Province of British Columbia and Government of Canada (2013). *A Path Forward: BC First Nations and Aboriginal People's Mental Wellness and Substance Use - 10 Year Plan*

WHERE'S THE HARM?

Most people who use drugs continue to manage careers, families, and life in general, all the while maintaining moderate or even heavy patterns of use. For others, alcohol or other drug use leads to the loss of jobs, relationships, and health.

Some harms may be attributable to the drugs themselves, and the effects they have on the body, brain or mind of an individual (e.g., alcohol can cause cognitive and liver damage, tobacco smoking can cause lung cancer, and stimulant use, such as cocaine or methamphetamine, can cause paranoia or insomnia). Sometimes people with an underlying or undiagnosed mental illness use alcohol or other drugs to help them cope with their illness (self-medicate), and, in some cases, non-prescribed drug use can aggravate and add complications to the underlying condition.

Many of the harms associated with drug use, however, are actually from the way that society treats drug use, and people who use drugs, rather than the drug use itself.

Prohibition—that is, making drugs illegal—contributes to discrimination and stigma against people who use drugs and leads people to hide their use due to fears of discrimination and criminalization. This discrimination and stigma can prevent people who use drugs from getting good quality, non-judgmental healthcare, safe housing, and employment.

Because of the need to hide drug use and potential negative experiences with the healthcare system, people may also use drugs in less safe ways, including using alone or sharing needles or pipes (which puts people at risk of acquiring HIV and hepatitis C), and they may not seek treatment for addiction or drug-related harms. The need to acquire alcohol or other drugs leads some to steal, deal drugs, or engage in sex work. It costs some their lives.

Another consequence of prohibition is that illegal drugs are often mixed with other substances, so, without access to drug checking equipment, it is impossible for a person to know exactly what they're taking or how strong it is.

The opioid overdose crisis in BC is an example of this—due to the 'war on drugs' approach to enforcement such as jail-time for possession and trafficking, more dealers have moved to trafficking fentanyl and other analogues in place of heroin, and in many cases added them into the illicit drug supply. These synthetic opioids are significantly more potent than heroin, meaning that a much smaller amount needs to be imported into the country for the same amount of profit, which significantly decreases the risk of being caught. These highly potent synthetic opioids are often added to street drugs and/or cut with other substances, making it very hard to know exactly what and how much a person is taking, increasing the risk of overdose including for those using opioids for the first time.

The lack of governmental regulation of these substances leads to a thriving black market, which can be accessed by young people under 19 fairly easily.

Individual drug effects may also be unexpected. They can differ with the weight,

height, and sex of a person, whether they've taken it before, where they are at the time (e.g., alone or with friends, at home or at a party), their general physical or mental health, and dosage strength. Physiologic changes (for example, pulse and blood pressure), reflexes, impulse control, and the ability to make decisions can be affected, making it easier to have an accident (such as drowning or falling), a motor vehicle crash (from impaired driving), or doing something one may later regret (such as having unsafe sex).

Each drug or the way it is used comes with its own "side effects." People who inject drugs can experience vein problems or blood-borne infections, such as HIV or hepatitis C; those snorting cocaine or methamphetamines may develop blemishes and runny noses or skin sores; and people who use opioids may develop chronic constipation. The use of alcohol and other drugs can lower the immune system, leading to frequent colds or other infections. Long-term use of these drugs have also been correlated with negative health effects, such as increased risk of cancer and heart disease with long term alcohol use.

WHO IS AT RISK?

Over the last few decades, science has broadened our understanding of some of the risk factors that make it more likely that one person will develop addiction over another.

We know that the development of a substance use disorder is very complex and involves many factors that intersect, including internal factors like genetics and external environmental factors such as law enforcement and stress. No one is sure why a small proportion of people who experiment with alcohol or other drugs will develop an addiction or substance use disorder, who is at risk, or why.

Additionally, certain traits, experiences, and co-occurring illnesses are associated with developing substance disorders. These include genetic factors; mental health conditions, such as attention deficit disorder, depression, post-traumatic stress disorder, and other mental health issues; early exposure to stress; impulsivity; and exposure to substance use at an early age.

There are many factors that influence the decision to experiment with alcohol and other drugs, as well as the progression for a small number of people into problematic substance use, including substance use disorders, with no one single cause.

SUBSTANCE USE DISORDERS

The words used to describe problematic drug use and addiction have shifted over the years. What used to be called drug abuse, addiction, or dependence is now medically classified as a substance use disorder.¹ Substance use disorders may be substance-specific (for example, opioid use disorder or alcohol use disorder) or refer to a class of substances (e.g., stimulant use disorder, which includes cocaine and methamphetamines) Substance use disorders may be mild, moderate, or severe.

Substance use disorders are identified when at least two of the following are present:

(mild 2-3 symptoms; moderate 4-5 symptoms; severe 6 or more symptoms)

- Using the substance in larger amounts or over a longer period of time than intended
- Trying and failing to reduce or control use of the substance
- Spending a lot of time getting the drug, using the drug, or recovering from using it
- Cravings
- Use that results in a failure to fulfill obligations at school, work, or home
- Continuing to use the substance despite social or interpersonal problems caused or made worse by use
- Giving up or reducing important social, work-related, or recreational activities
- Repeatedly using in situations that are physically dangerous
- Continuing to use despite knowing about a physical or psychological problem likely caused by substance use
- Tolerance (needing more and more of the drug and/or being much less affected by the same amount usually used)
- Withdrawal (unpleasant symptoms that occur when someone who has become physically dependent on a substance stops or significantly reduces using that substance)

¹ The Diagnostic and Statistical Manual of Mental Disorders is used as the authority in diagnosing mental health disorders and substance use disorders. The DSM-5 (2013) collapsed two categories, substance abuse and substance dependence, into the larger substance use disorder classification, with levels of severity.

INDICATIONS OF PROBLEMATIC SUBSTANCE USE OR OTHER ISSUES

WATCH FOR THE SIGNS

Given that you're reading this, it's likely that you already suspect or know that your child or loved one is using alcohol or other drugs, and may be at risk of harms such as addiction or overdose. It's important to note that some of the following signs may not necessarily indicate substance use, but do indicate that something is going on that needs to be addressed and supported. If you're seeing some of the signs on the following page, it's really important that you talk to your child or loved one to determine what is going on, whether it's related to substance use, mental health issues, or other concerns, and what kind of support they might need.

Early indicators of substance use or other problems (risk factors that increase likelihood of adolescent substance use).

It is important to note that no single personality trait or indicators predicts the development of a substance use disorder.

- Be on the lookout for signs of depression, low self-esteem, and obsessive behaviours. If these statements sound familiar, pay attention.
 - “No one likes me.”
 - “What’s wrong with me?”
 - “Why am I so different? Why don’t I fit in?”
- If the young person in your life is a risk-taker or thrill-seeker, be alert. Drugs can have a certain glamour and appeal, and risk takers tend to experiment.
- People with diagnosed or undiagnosed mental health concerns may also use substances as a way to self-medicate; for example, to cope with anxiety or depression.

BEHAVIOURAL SIGNS OF SUBSTANCE USE

The following behaviours may indicate that your child or loved one is using substances problematically, although it's important to note that some of these signs can just be adolescent development markers. In any case, if they are causing concern to you or other family members, they indicate that something else is going on, whether substance use is occurring or not.

- Unusual or new sleeping patterns, including being up or out all night and sleeping all day or inability to sleep (Note: This is a different pattern than the common “sleeping in” of teenagers).
- Frequent requests for money and/or frequent bank withdrawals.
- Non-stop or rapid-fire talking, especially in a usually quiet person or lack of conversation in a person who was previously talkative.
- Changing habits (e.g., poor hygiene in someone who was once very neat and tidy).
- Frequent change of jobs (may be due to frequent absences).
- Severe mood swings, including reactions disproportionate to the situation.
- Loss of old friends and new friends with unspoken last names and/or with cell phone numbers that are blocked, or friends with known substance use.
- Falling or failing grades, skipping class, dropping out of school, or quitting/being fired from work.
- Secretive telephone conversations and secrecy about their comings and goings.
- Lying.
- Spending a lot of time alone and behind locked doors.
- Lack of motivation or lack of interest in activities they normally enjoy.

PHYSICAL AND EMOTIONAL SIGNS OF SUBSTANCE USE

These will vary with the substance ingested and, like the behavioural signs above, not all of the following signs necessarily signal substance use but do indicate that something is going on that needs a compassionate approach to providing support, understanding, and possibly assessment by a health care provider and treatment. The best thing you can do if you notice one or more of the following signs is to talk to your child or loved one—open, non-judgmental communication is vital.

PHYSICAL SIGNS

- Rapid weight loss or weight gain
- Sores on hands, legs, or face
- Glazed or runny eyes, pinpoint or enlarged pupils
- Bone aches and pains, runny nose, sweating, restlessness, stomach upset
- Needle marks (also called “track marks”)
- Slurred speech
- Recurrent itchiness and compulsive scratching
- Sniffing, runny nose, or nose bleeds
- Blackened fingers
- Blackened teeth or excessive dental decay
- Clothes and hair smelling like tobacco or marijuana

- Poor self-control
- Depression or low mood
- Apathy
- Irritability or increased anxiety
- Mood instability

EMOTIONAL SIGNS

SIGNS OF SUBSTANCE USE AROUND THE HOUSE

Many of the below signs could have multiple explanations, while others are much more likely to indicate substance use. If you see one or more of the below signs, talk to your child or loved one. As with the other possible indications of substance use, open non-judgemental communication is vital.

- Blackened spoons, knives, or foil. These are used to cook (heat) drugs or to make pipes.
- Dismantled ballpoint pens or glass tubes. These are used for smoking crack or meth.
- Rolled up bloody tissues. Snorting some drugs can make your nose bleed.
- Dented pop cans or other containers with little holes in the dent. These are used as pipes.
- Corners torn off magazine papers and other squares of paper. These are used to make flaps to carry drugs.
- Syringes and small spoons. These are used for injecting opioids (like heroin), crystal meth, or cocaine.
- Watered down liquor.
- Aerosol cans or tubes of glue. These are inhaled or “huffed.”
- Two or more of the products used in a home-based crystal meth lab (e.g., acetone, hydrochloric acid, ammonia, ephedrine). Other signs of a crystal meth lab include amber staining on the wall, counters, and furniture, and a very strong odor of ammonia, ether, or a smell similar to cat urine.
- Missing prescription medication, money, or other valuables.

Some people who use drugs start by taking legal, over-the-counter medications commonly found in a lot of households.

There is a common misconception that if a medication is not a prescription and can be purchased by anyone, that it is safe even when consumed in large amounts. Over-the-counter medications can be just as dangerous as prescription medications and, if taken incorrectly, can have life-long, life-threatening, or even fatal consequences.

Examples of over-the-counter medications that may be used problematically include Benadryl, Benylin and other cough suppressants, Gravol, anti-histamines, ephedrine and pseudoephedrine products, Tylenol, codeine, Aspirin, and other pain relievers, and sleep aids.

Because of the availability of over-the-counter medication in many households and at pharmacies, experimentation can occur easily. It is important to keep all medications within a secure area and be aware of when medications are missing.

Some over-the-counter medications are also sometimes used as additives or to “cut” (add bulk) to illegal street drugs.

A NOTE OF CAUTION

As noted above, many of the behavioural, physical, and emotional signs of alcohol and other drug use listed here could have completely different explanations. If you are concerned that something is going on with your child or loved one, this is the time to increase communication so that you can better understand your child or loved one’s circumstances.

So much depends on your ongoing relationship with this person.

WHY PEOPLE USE ALCOHOL AND OTHER DRUGS

“*My son was articulate, good looking and very charming—and always a risk taker. He was the first to try skateboarding and to ski double black runs and, at age 15, he took a risk that would forever change his life and the lives of those who loved him.*

He tried smoking heroin, and before he knew it he was hooked.”

People use alcohol and other drugs for a variety of reasons and in a variety of ways. The reasons that someone tries using alcohol or other drugs may be different from the reasons they continue to use them.

Most people who try drugs will not develop a substance use disorder— in fact, the majority do not.

Some types of substance use are considered very common and normal in our society. These include drinking wine with dinner, toasting celebrations with champagne, or using tobacco for spiritual and ritual reasons. These uses are rarely questioned. So asking why people use alcohol and other drugs is often really asking one or more of the following questions:

1. Why do people try alcohol or other drugs?
2. Why do people develop problematic substance use including substance use disorders?

WHY DO PEOPLE TRY ALCOHOL AND OTHER DRUGS?

Substance use in youth is very common, although rates of use of both alcohol and other drugs have been declining in BC and Canada over the past decade. A 2017 survey of high school students in Ontario found that almost 43% of students in grade 7-12 had used alcohol in the past year, and 37.8% of students grade 9-12 had used other drugs in the past year. 44% of students between grade 7-12 reported no use of any drug (including alcohol and cigarettes). Data for BC is less recent (2013) and measures substance use a little differently, but shows similar rates, with 42% of youth aged 12-19 having used alcohol in the past year, 26% having used cannabis (marijuana), and 17% having used a drug other than alcohol or cannabis.

There are many reasons why people might try drugs. In addition to the fact that alcohol and many other drugs can induce euphoria and other pleasurable sensations, below are some of the common factors that have been identified by research into substance use initiation. Not all of these may apply to your loved one.

PEER SUBSTANCE USE

Having peers who use alcohol or other drugs can normalize substance use; young people may also feel pressure (internal or external) to fit in with their peers by using alcohol or other drugs

BELIEFS ABOUT SUBSTANCE USE

Alcohol and other drug use viewed as normal and pleasurable activities for adolescents.

LACK OF IMPULSE CONTROL

Adolescents and young adults have significantly lower impulse control than adults. This can lead to risk-taking, novelty-seeking, and sensation-seeking behaviour, including trying alcohol and other drugs.

DRUG AVAILABILITY

Alcohol or other drugs being easily obtained and generally around increase the likelihood of trying alcohol and other drugs

EMOTIONAL AND PHYSIOLOGICAL FACTORS

Hyperactivity, inattention, early aggressive behaviour (in boys), increased frequency of negative emotions (in girls), and sociability have all been linked to trying alcohol and other drugs.

SUBSTANCE USE NORMALIZED IN THE HOME

Parents using alcohol or other drugs and/or a general perception of using being acceptable.

WHY DO PEOPLE DEVELOP PROBLEMATIC SUBSTANCE USE, INCLUDING SUBSTANCE USE DISORDERS?

Most people who try alcohol or other drugs will not develop problematic substance use. However, a small number of people who use alcohol or other drugs will develop problematic substance use, including substance use disorders (see page 9 for more information on substance use disorders).

In recent years, science has broadened our understanding of some of the risk factors that make it more likely that one person will develop addiction over another. The development of a substance use disorder is very complex and involves many factors that intersect. Some of the factors that have been associated with the development of problematic substance use and substance use disorders are listed below. Some, most, or none of these may be relevant for your child or loved one.

EARLY SUBSTANCE USE INITIATION

Young people who first use alcohol or other drugs before 13 or 14 years old are more likely to develop problematic substance use later in life

FAMILY HISTORY OF SUBSTANCE USE DISORDERS

POOR PEER RELATIONSHIPS OR POOR SOCIAL COPING SKILLS

CHRONIC STRESS

Studies have shown that chronic stress is a risk factor for developing substance use disorders and that life stress impacts treatment outcomes and relapse rates.

ACADEMIC FAILURE

PEERS WITH ENGAGED IN PROBLEMATIC SUBSTANCE USE

GENETICS

Recent studies from families and twins have revealed that genetic factors can contribute to the risk of developing a substance use disorder. For example, genes that regulate how the liver metabolizes drugs or genes that control the neurotransmitters in the brain could predispose a person to problematic substance use.

ADVERSE CHILDHOOD EXPERIENCES

Research has shown that a higher number of adverse childhood experiences (ACEs) is associated with a higher likelihood of substance use in adulthood. ACEs include problematic substance use or mental illness in the home, childhood abuse, witnessing domestic violence, parental separation or divorce, and having a family member incarcerated.

TRAUMA

People with substance use disorders are significantly more likely to have experienced trauma than people without substance use disorders. There are many different causes of trauma, and the existence of trauma—whether recent or historical—may or may not have anything to do with that person’s family of origin. Being aware of trauma—including intergenerational trauma, the potential use of alcohol and other drugs to cope and self-soothe, and the existence of trauma-informed treatment can be a very positive thing for those people who do have a history of trauma, allowing them to get treatment for substance use that is based in an understanding of the ways that trauma impacts people.

BRAIN CHANGES

Some substances can change brain structures over time. These include the development of tolerance—needing to use more to get the same effect—cravings and physical dependence—needing to use a certain amount of the substance to prevent withdrawal symptoms. Dependence alone does not qualify as a substance use disorder, but it can change substance use from a pleasurable activity to one undertaken to avoid going into withdrawal.

ROUTE OF ADMINISTRATION

Injecting or smoking substances (like opioids, cocaine, and crystal meth) causes an almost immediate, intense sensation. Because this intense feeling can fade much more quickly than other methods of use, it can lead to using more frequently in order to re-experience the initial rush or to avoid going into withdrawal.

SUBSTANCE USE AND MENTAL HEALTH PROBLEMS

Mental health problems may precede, coincide with, result from, be linked to, be exacerbated by, or be mistaken for alcohol or other drug use.

If there is a history of mental health problems in your child or loved one's family, be on the alert. Illicit drugs may be used by a person to relieve symptoms of an undiagnosed mental health condition (in other words, self-medication) and/or they may be used in addition to or instead of prescribed medication for a diagnosed condition, they also may worsen existing symptoms of mental illness.

Substance use and depression can be linked, as alcohol and other drugs can suppress feelings of pain and other distress and uplift the mood for a while, but ultimately they can make depression and mood worse. Alcohol and other drugs may be used to cope with other conditions including anxiety, attention deficit disorder, and attention deficit/hyperactivity (ADHD) disorder. Children, adolescents, and adults with ADHD are more likely to use alcohol and other drugs than those without ADHD, start using alcohol and other drugs earlier, and are more likely to develop a substance use disorder.

A large proportion of people with a substance use disorder also have a mental health illness (frequently called co-occurring or concurrent disorders or a dual diagnosis), but many treatment services are not adequately equipped to address both problems together. It should be noted that, generally, specialized concurrent disorder treatment is best suited for individuals with severe concurrent mental illness and substance use disorders and individuals with mild/moderate symptoms (e.g., insomnia, anxiety, low mood) can be effectively treated by a primary care provider.

Finding treatment for an individual with moderate or severe co-occurring substance use and mental health disorders can, unfortunately, be difficult. BC Children's Hospital has an outpatient program for youth with concurrent disorders (age 12-24) and Foundry is a new provincial network providing care and referrals for youth aged 12-24 who need substance use disorder treatment, mental health illness treatment, or treatment for co-occurring disorders.

There are also many programs available for adults with moderate or severe co-occurring disorders—these are best accessed by a referral from your loved one's primary care physician or an addictions specialist.

CAUTION

If your child seems constantly depressed, stays in bed all day, becomes monosyllabic and lacking in facial expression or animation, expresses no interest or joy in anything they previously enjoyed, talks of suicide and death, or seems preoccupied with death, don't assume it is related to substance use. No substance makes you like this all the time.

If one or all of these symptoms is present, seek help immediately. 24-hour crisis lines are available at 1-800-SUICIDE (1-800-784-2433) if someone is suicidal, or 310-6789 (no area code needed) for mental health support.

ALCOHOL AND OTHER DRUGS AT A GLANCE

The following section provides an overview of the substances your child or loved one may be using.

Each section provides an overview of the substance, known risks, harm reduction strategies (when applicable), and information about evidence-based treatment.

As shown in the Spectrum of Substance Use, the fact that your child or loved one is using one or more of the following substances does not necessarily mean that they are using them problematically or have a substance use disorder.

Harm reduction strategies are useful for anyone using alcohol or other drugs, with the goal of “meeting people where they are at” to promote safer use and open a door into treatment as needed.

Treatment information is provided for those who are using substances problematically and are ready to access treatment. The substance-specific treatment information below is provided to help you to support your loved one in making an informed decision. Treatment decisions should be made in partnership with your loved one’s health care provider or an addictions specialist.

ALCOHOL

Alcohol is a depressant that alters the functioning of neurotransmitters (messenger chemicals) in the brain, which results in a slowing down parts of the brain and nervous system, which slows heartrate and breathing. This increases relaxation and reduces inhibition.

Depending on several factors, including the size of the person, how much and how quickly they drink, and whether they have developed tolerance, alcohol may cause reduced concentration, slurred speech, and blurred vision. Alcohol can also affect coordination and judgment and reduce impulse control. Drinking in moderation does not harm most people, but regular heavy drinking can contribute to a variety of health, personal, and social problems. At-risk (or “heavy”) drinkers can experience harm without meeting the criteria for an alcohol use disorder (formerly and colloquially referred to as alcoholism).

Heavy or at-risk drinking can be understood as more than 15 standard drinks per week for men (or more than 3 drinks on one day) and more than 10 standard drinks per week for women (or more than 2 drinks on one day).



One 142 mL (5 fl oz) glass of wine



One mixed drink with 43 mL (1.5 fl oz) of liquor (such as vodka, gin, rye whiskey, scotch, brandy or rum)



One 341 mL (12 fl oz) glass of beer or wine cooler

At-risk drinkers face a high risk of developing health problems including liver disease and damage, heart disease, cancer, high blood pressure, stomach problems, and depression or anxiety. Personal, social, and legal problems may also develop, including relationship and family problems, poor work performance, financial difficulties, and legal problems.

Binge drinkers (drinking many drinks on one occasion, 5 for a male or 4 for a female) can risk internal physical damage, including brain damage, as well as overdose/ unconsciousness/coma. Alcohol can also increase risk-taking behaviour such as mixing drugs and having unsafe sex, and may lead to car accidents, fights, or other dangerous behaviour.

Mixing alcohol with other drugs increases the risk of harm, including increased risk of overdose if mixing alcohol with other sedatives like opioids (heroin, Percocet) or benzodiazepines (Valium, Ativan). Mixing over-the-counter or prescription drugs with alcohol can have negative outcomes, including altering the efficacy of the prescription medication, making a normally safe drug unsafe, increasing risk of overdose, or cause other unpleasant effects like nausea, vomiting, or dizziness.

The liver can only break down and get rid of a little less than one standard drink per hour (a glass of wine, a shot of spirits, or a beer all contain about the same amount of alcohol), depending on the size of the person.

Sobering up takes time. No amount of black coffee, cold showers, exercise, or vomiting speeds up the work of the liver or reduces the blood alcohol content. People who regularly drink can develop tolerance and will need to drink larger amounts of alcohol to get the same effects as before.

Regular drinkers can also develop physical dependence, meaning that they will experience withdrawal symptoms if they don't consume alcohol.

RISKS

- There is no known safe level of alcohol consumption for pregnant women. Alcohol use during pregnancy has been linked with higher risk of miscarriage, stillbirth, premature birth, and low birth weight. The most serious outcome is fetal alcohol syndrome.
- Alcohol poisoning. Alcohol is a central nervous system depressant, and drinking too much can cause the body and nervous system to shut down to the point of unconsciousness, and, in severe cases, coma, with the accompanying risk of brain damage or death.
 - Signs of alcohol poisoning include low body temperature, slow heart rate, slow and labored breathing, loss of consciousness, clammy skin, and incontinence (urinating on oneself). If these signs are present, call an ambulance and do not leave the intoxicated person alone.
 - If someone is drinking and passes out or becomes unable to speak or move but is breathing and has a pulse, lay them on their left side, make sure their airways are clear, call an ambulance immediately, and do not leave them alone.

- If breathing stops but a pulse can be felt, call an ambulance, and commence mouth-to-mouth resuscitation (if a pulse is evident, do not attempt CPR).
- If no pulse or breathing is evident, call an ambulance and commence CPR (Cardio-Pulmonary Resuscitation).
- Many health problems are associated with at-risk drinking or alcohol use disorders. These include cardiovascular disease, liver disease, certain cancers, and hypertension (high blood pressure).
- Tolerance—needing more alcohol to achieve the desired effect—and physical dependence—needing to consume alcohol to avoid withdrawal symptoms—are risks of heavy drinking. Tolerance and physical dependence together are often an indication of an alcohol use disorder.

HARM REDUCTION

- Low-risk drinking: Drinking fewer than 10 drinks per week for women (and no more than 2 drinks on most days) and 15 drinks per week (and no more than 3 drinks on most days) for men decreases the risk of long-term health impacts.
- Drink 3 drinks or less (women) and 4 drinks or less (men) on any one occasion.
- Avoid mixing alcohol with: Driving, medications and other drugs, making important decisions.
- Drink slowly (e.g., 1 drink per hour) and alternate with water or another non-alcoholic drink.
- Eat before and while drinking.
- If someone falls asleep while intoxicated, roll them on their left side to avoid choking if they vomit in their sleep. If they are unconscious rather than asleep, call an ambulance.

TREATMENT

For a long time, and still in some places, the standard approach to alcohol use disorder was to withdraw (or “detox”) by abruptly stopping drinking (sometimes called “going cold turkey”) followed by participation in unstructured, peer-based groups (like AA or other 12-step fellowship groups). However, going cold turkey from alcohol can be very dangerous, with a small number of people who abruptly stop drinking alcohol without medical supervision experiencing serious health consequences including seizures and even death. If your child or loved one drinks large amounts frequently and is thinking about quitting, it is very important that they see a doctor first, who can assess their health and determine a treatment plan.

Evidence-based treatment for alcohol use disorder includes psychosocial interventions (such as motivational interviewing, cognitive behavioural therapy, and family-based treatment) and pharmacotherapy for withdrawal management and/or relapse prevention. The evidence supporting peer-based support groups (such as AA and other 12-step fellowship models) and residential inpatient treatment is mixed, but some people and their families may benefit from these approaches. Different treatments and approaches will suit different people, and more than one may have to be tried.

BENZODIAZEPINES

Benzodiazepines (“benzos”, “bennies”) are sedatives (that is, they are depressants) commonly prescribed to reduce anxiety, help insomnia, and relax muscles. They are also used to treat alcohol withdrawal and in some medical procedures.

Although benzodiazepines have useful short-term applications (for example, short-term anxiety relief, occasional insomnia), they also have many potential risks including physical dependency and addiction when used long-term.

Some people start using benzodiazepines on the advice of their doctor, for example, to manage anxiety, and then continue to use them longer than they were prescribed. Other people use them recreationally or to self-medicate.

Benzodiazepines (like alcohol and opioids) depress the central nervous system (brain and spinal cord) and have an additive effect when combined. Some people use benzodiazepines to enhance the effect of other sedatives like opioids and alcohol. This is very dangerous as it increases the risk of overdose. In fact, most overdoses are related to poly-substance use, rather than just one psychoactive medication alone.

Benzodiazepines generally come in the form of capsules or tablets, in various colours. People may have a prescription, steal from someone else’s prescription, or buy them on the street.

Benzodiazepines are generally swallowed or taken sublingually (dissolved under the tongue), with effects felt between 30-120 minutes, depending on the specific benzodiazepine taken. Most have effects that will be felt for several hours.



RISKS

- If your loved one has a prescription for benzodiazepines, they, or you with them, can speak to their health care provider to determine if benzodiazepines are the only option for the condition they are being prescribed for. As noted above, as benzodiazepines have very few evidence-based indications for long-term use and should be used with caution.
- Benzodiazepines should not be stopped abruptly after long-term use. Doing this can cause seizures, confusion, paranoid psychosis, and withdrawal symptoms. Withdrawal symptoms include insomnia, sweating, fatigue, upset stomach, and headache. Severe symptoms include paranoia, agitation, delirium (extreme confusion, restlessness, lack of awareness of your environment, disorientation, possible hallucinations), and seizures.
- Increased risk of car accidents, due to impairment in coordination, psychomotor skills, and judgment
- Side effects of benzodiazepines include memory and cognitive impairment, amnesia, depression, disorientation, clumsiness, and dizziness. Rare side effects include hallucinations and agitation. At low doses, most side effects are mild and may not be noticeable.
- Benzodiazepines can interact with medications including cold medication, pain medications, cough syrup, and some herbal products.
- Regularly using benzodiazepines for more than a few weeks can lead to physical dependence.
- Combining benzodiazepines with other sedatives (e.g., methadone, heroin, alcohol) is very dangerous. Signs of overdose include confusion, weakness, slurred speech, slow heartbeat, severe drowsiness, staggering around, respiratory depression (breathing very little or not at all), and losing consciousness. If this happens, call 911.

TREATMENT

Benzodiazepines taken long-term should not be stopped abruptly. This can be very dangerous. It is important that your child or loved one see their doctor to begin a slow, medically supervised, taper. The addition of cognitive behavioural therapy to a slow taper may help.

For some people, including those who face a high risk of harm or relapse or are not ready or willing to stop using benzodiazepines, a harm reduction strategy in which a long-acting benzodiazepine is substituted for their benzodiazepine of choice may be recommended by their health care provider. This prevents withdrawal and intoxication, and allows for psychosocial treatment to occur, which can help your loved one to reach stability. Once stability is reached, a long, slow taper might be considered. Patients at high risk, with a history of seizures, concurrent alcohol or other substance use disorders or other medical concerns, might benefit from attending inpatient treatment.

If your child or loved one was originally prescribed benzodiazepines, or were taking them to self-medicate (for example, for anxiety), the underlying condition should be treated.

CANNABIS (MARIJUANA)

Cannabis is the short name for the hemp plants *Cannabis sativa* or *Cannabis indica*. Marijuana (“weed”, “pot”, “dope”, “grass”, “ganja”) and hashish (“hash”) come from this plant.

Cannabis has been used for thousands of years in the manufacturing of products such as clothing and rope, as well as for medicinal and spiritual purposes. The chemical in cannabis that makes the user high is THC (tetrahydrocannabinol), and the higher the level of THC, the stronger the marijuana.

Cannabis is generally smoked in pipes, water pipes (“bongs”, “hookahs”), and vaporizers or rolled into cigarettes (“blunts”, “joints”, “doobies”). Cannabis can also be infused into oil and used as a tincture, swallowed as a capsule, or baked into food (these are often called “edibles”). Hash, sold in oil form or compressed blocks, is smoked (sometimes mixed with tobacco), and its higher concentration of THC makes it more potent.

The effects of cannabis are most intense during the first hour after smoking the drug, although they may persist for three to five hours. Edibles and capsules can take a longer time to take effect, as they need to be digested, which is impacted by any food in the stomach. Relatively small amounts of cannabis can produce a feeling of well-being and lethargy, a tendency to talk and laugh more than usual, redden the whites of the eyes, impair coordination, and reduce concentration.

Cannabis can also affect one’s ability to drive. Higher doses make these effects stronger. A person’s perception of time, sound, and colour may become distorted or sharpened. Feelings of excitement, anxiety, or paranoia and confusion may also increase.

Cannabis will be legalized in Canada in October 2018—although the policy specifics are unknown at this point, it is known that cannabis will be legal for adults to purchase and possess.



RISKS

- While most people who use cannabis will not develop problematic substance use, it is possible to develop problematic cannabis use, including cannabis use disorders. Approximately 10% of regular cannabis users will develop a cannabis use disorder.
- Small amounts of cannabis do not appear to produce lasting harmful effects, and withdrawal is minimal or nonexistent from all but regular, heavy continuous use. However, frequent or heavy smokers may experience some negative effects, including decreased motivation, reduced memory and learning abilities, impaired attention, and reduced ability to process complex information. All these faculties will recover once the person stops or reduces use.
- Using cannabis at an early age (particularly before 16 years old) is associated with the development of health, social, and educational problems.
- Some regular users find that they start to feel like they need cannabis because it has become important in their daily lives, usually to relax, unwind, counter stress, or to make them feel at ease in social situations.
- Cannabis impairs depth perception, coordination, attention span, concentration, and slows reaction time. These factors can impair the ability to drive safely.
- It is unclear whether smoking cannabis is linked to lung cancer, however, heavy cannabis smoking is associated with airway inflammation and chronic bronchitis symptoms.
- Extreme reactions from cannabis intoxication are very rare. There have been isolated reports of people becoming disoriented or suffering hallucinations or behavioural disturbances.
- There is a possible link between regular, heavy use of cannabis and the onset of schizophrenia, however, it's not clear whether cannabis use causes latent symptoms to emerge or whether people with emerging symptoms use cannabis to cope with those symptoms. There is some evidence suggesting that continuing to use cannabis can worsen symptoms in those who have schizophrenia. Cannabis use does not cause schizophrenia.
- A fatal overdose from the ingestion of cannabis is close to impossible. However, ingesting huge amounts has been known to cause toxic psychosis, which can include paranoid delusions, confusion, hallucinations, and amnesia. These symptoms usually resolve within a week of stopping use. Smoking or eating too much can result in confusion, panic, paranoia, agitation, and feeling out of control.
- Those withdrawing from cannabis may experience sleeping problems, anxiety, sweating, loss of appetite, irritability and an upset stomach. These symptoms usually disappear within a few days, although sleep disturbances may last longer. Withdrawal symptoms, if not supported and managed, are a major determinate of relapse among individuals seeking treatment for cannabis use disorder.

TREATMENT

There are several behavioural treatments that have shown promise for cannabis use disorders. They include cognitive behavioural therapy, contingency management (which ties a target behaviour like abstinence to rewards), and motivational enhancement therapy. To date, there are no evidence-based pharmacotherapies for the treatment of cannabis use disorder.

COCAINE

Cocaine hydrochloride (“coke”, “blow”, “snow”, “flake”) is a central nervous system stimulant derived from the leaves of the coca plant. Cocaine may be bought in the form of a white powder or a free-base form (crack), which comes as a “rock” or crystal. Powder cocaine can be snorted, injected, or ingested, while crack is smoked. Most street cocaine is heavily cut with various additives and may contain other contaminants, including (in parts of BC) fentanyl and other synthetic opioid analogues, which can cause an opioid overdose in someone who thinks they are only doing cocaine. Smoking crack gives quicker effects than soluble cocaine because it is more concentrated. Pure cocaine is rarely found on the street.

Cocaine is a stimulant which makes most people feel euphoric (really, really good), full of energy, alert, and talkative. Their senses are often heightened, including sexuality, while their need for sleep and hunger are decreased. Some people, however, have a different response and feel calm, with increased confidence and self-control.

Short-term effects can occur rapidly after a single dose of cocaine, and can last anywhere from a few minutes to a few hours. Immediate effects include a feeling of euphoria, wellbeing, increased alertness, and energy. Other effects may include feeling agitated, nervous, and unable to relax.

Long-term use of cocaine can, for some people, lead to anxiety, panic attacks, hallucinations, delusions, paranoia, and erratic, sometimes violent, behaviour.

Most people who use cocaine use it infrequently. However, the effects of cocaine tend to wear off quickly so people often take a number of small doses in quick succession.



RISKS

- People who use cocaine are at high risk of developing a cocaine use disorder (up to 1 in 6 cocaine users may develop a cocaine use disorder), with heavy use, injection, and smoking all increasing the risk.
- Negative side effects of cocaine use can include anxiety, increased pulse and blood pressure, panic attacks, paranoia, impaired judgment, hallucinations, sleep disturbance, restlessness, picking at the skin, sweating, nausea, and weight loss.
- Cocaine psychosis may occur in those with a cocaine use disorder. Symptoms include delusions, hallucinations, paranoia. Delusions can include the feeling of something (like insects) crawling under the skin.
- Long-term use of cocaine is associated with cognitive (brain) impairment, including attention, decision-making, verbal memory, and coordination of movement and visual perception, as well as high-risk sexual behaviour and suicidal thoughts and attempts. It's not clear, however, if suicidal thoughts and attempts are due to cocaine use or other factors (such as mental health, poverty, or trauma).
- If cocaine is snorted, nosebleeds are common, and damage to blood vessels may lead to holes in the supporting tissues of the nose. Breathing difficulties and lung damage can occur from smoking freebase cocaine (also called "crack"). Cardiac problems and strokes are both increased in people who use cocaine.
- Skin sores and lesions are also common in heavy cocaine users. Some of these are directly due to the cocaine use and some are due to picking at skin (sometimes because of delusions of insects under the skin).
- When cocaine is used along with alcohol, the two drugs combine in the bloodstream to produce cocaethylene. Cocaethylene has effects that are similar to cocaine, although less potent. These effects last significantly longer and may increase the toxic effects of cocaine.
- As with all injection drug use, injecting cocaine increases risk for contracting blood-borne illnesses like hepatitis C and HIV. The short effect of cocaine can lead to a high number of daily injections, which increases the chance of reusing or sharing needles.
- Deaths arising directly from cocaine use are rare but possible, with most due to secondary conditions such as heart attacks or brain damage.
- Withdrawal occurs after stopping or reducing heavy or prolonged cocaine use. Cocaine withdrawal symptoms include tiredness, vivid, unpleasant dreams, trouble sleeping or too much sleep, decreased appetite. and agitation
- Overdose can happen from even a small amount of cocaine, depending on tolerance. Effects of overdose include heart failure, seizures, and breathing can become weak or stop entirely. Lay the person on their left side and DIAL 911 if someone:
 - Has an irregular heart rhythm or elevated heart rate, very high blood pressure, very high body temperature, altered breathing, nausea, severe anxiety, sweating, seizures, confusion, stroke, psychosis, or tremors.
 - Passes out or becomes unable to speak or move
 - If the person has stopped breathing but still has a pulse,

commence mouth-to-mouth resuscitation—not CPR (Cardio-Pulmonary Resuscitation, which has the purpose of restoring the pulse).

- If the person has no pulse and is not breathing, commence CPR.

HARM REDUCTION

- If your child or loved one is injecting cocaine, encourage them to use sterile injection equipment (like needles and cookers) and to avoid sharing equipment.
- Encourage your child or loved one to use drug checking services, where they exist.
- If your child or loved one is smoking freebase cocaine (crack), encourage them to use their own mouthpiece and avoid sharing pipes or mouthpieces.
- Use wire screens rather than steel wool or “Brillo” pads.
- Encourage your child to avoid mixing alcohol and cocaine.
- Additional harm reduction strategies and locations for harm reduction supplies can be found at www.towardtheheart.com/safer-use.

TREATMENT

Psychosocial treatment interventions are recommended for cocaine use disorder, as no pharmacological treatments have been found to be consistently effective. Psychosocial treatment interventions include individual or group drug counselling, intensive outpatient therapy, cognitive behavioural therapy, and contingency management (which ties a target behaviour like abstinence to rewards).

Treatment interventions are chosen based on the severity of the cocaine use disorder. While psychosocial treatment interventions have shown to be effective in reducing cocaine use, they are unfortunately not sufficient for many people.

Research into pharmacological treatment options is ongoing, but at this point there are no pharmacological treatments that are supported by evidence.

ECSTASY

Ecstasy (MetheleneDioxyMethAmphetamine or MDMA) is a synthetic drug which causes euphoria, increased empathy and well-being, and heightened sensations.

Also known as “XTC”, “Molly”, “E”, and “X”, it is usually sold as small tablets (often decorated with icons or phrases) in a variety of colours and sizes, in capsule form, or as powder which can be taken orally, snorted or, rarely, injected. Its euphoric, mood-altering effects make it a popular party drug. The effects generally appear in about an hour and commonly last 4-8 hours.

Ecstasy can generate a number of responses, both pleasurable and not, including: increased feelings of self-confidence, wellbeing, and closeness to others; a rise in blood pressure, body temperature, and pulse rate; jaw clenching and teeth grinding; sweating and dehydration; nausea, vomiting, and anxiety.

Many ecstasy users experience a “hangover” effect—including loss of appetite, irritation, insomnia, depression, memory impairment, and lethargy.

Tolerance to ecstasy can build quickly, meaning that taking the same amount won't have the same effect. Unlike some other drugs, taking more ecstasy may not cause the initial and desired effect, because using ecstasy frequently causes serotonin (a brain chemical) depletion, which reduces the “high” from ecstasy and can cause depression. Addiction to MDMA is very rare.



RISKS

- What is sold as ecstasy or MDMA is often cut with other substances or may be something else entirely. Some of these substances have similar effects to MDMA, while others can be quite toxic.
- Ecstasy increases body temperature and can result in dehydration when paired with dancing all night. This overheating and dehydration can lead to heart failure, strokes, seizures, kidney failure, and even death.
- Ecstasy is sometimes referred to as the “love drug” because it commonly makes users feel warm and loving. Ecstasy can also heighten sexual desire, intensify sexual experience, and decrease inhibitions, making unprotected/unsafe sex more likely.
- Those with high blood pressure, a heart condition, liver problems, diabetes, asthma, epilepsy, or depression or other mental illness are most at risk from the potential side effects of ecstasy and should avoid using it.
- Mixing ecstasy with other drugs can be dangerous, causing a toxic interaction. This includes some prescription medications, including ritonavir, a medication used to treat HIV, and a type of antidepressant called monoamine oxidase inhibitors (e.g., phelzine (Nardil) and trancylpromine (Parnate)).
- Some people who use ecstasy will develop symptoms of addiction including tolerance, cravings, withdrawal, and continuing to use despite negative consequences.

HARM REDUCTION

- If using ecstasy, it is important to stay hydrated. However, drinking too much water can also cause harm by upsetting the electrolyte balance in the body. Hyperhydration (water intoxication or drinking too much water) can even cause death, excessive water drinking causes the sodium (salt) levels in the blood to get too low. Hyperhydration with use of MDMA is very rare.
- Encourage your child or loved one to use drug checking services, where they exist.
- Watch for signs of heat exhaustion. These include heavy sweating, fainting, nausea or vomiting, a fast but weak pulse, general weakness, and cold, pale and clammy skin. If these symptoms are present, the person who has taken ecstasy should go to a cool place, lie down, loosen their clothing, and apply damp cloths to as much of their skin as possible. If they vomit and continue to vomit, medical attention should be immediately sought.
- Watch for signs of heat stroke. This is much more serious than heat exhaustion. Symptoms include a body temperature above 103°F (39.4°C), seizures, unconsciousness, a rapid and strong pulse, and hot, red, dry, or moist skin. If these signs appear, call 911 then move the person to a cool place, and apply cool, damp cloths to the skin or put them in a cool bath.

TREATMENT

MDMA does not cause physical dependence and there are very few studies on the prevalence of substance use disorders for people that use MDMA. Recommended psychosocial treatment interventions include cognitive behavioural therapy, building coping skills, and support groups when combined with cognitive behavioural therapy and/or building coping skills. There are no recommended pharmacological treatments at this point.

INHALANTS

People become affected from breathing in the fumes (sniffing or “huffing”) of various volatile substances, including glues, aerosols, canned air (also called gas dusters), liquid paper thinners, butane gas, nitrous oxide, and gasoline. Solvents depress the central nervous system and act quite similarly to alcohol. However, because they are inhaled and go directly into the bloodstream, solvents act much more quickly.

Most inhalants have everyday uses and were never meant to be consumed or inhaled. There are four categories of inhalants, which cover hundreds of different inhalants. These include volatile solvents (e.g., acetone, cleaning fluids, paint thinner); aerosol products (e.g., cooking spray, spray paint, and hair spray); nitrites—also called “poppers” (e.g., amyl nitrite, cyclohexyl nitrite); and gases (e.g., nitrous oxide, butane). Because they are widely available for a variety of purposes, it is easy and cheap to acquire inhalants.

Glues and aerosol can contents are commonly inhaled from a small plastic bag held over the mouth and nose. Others are inhaled directly from their containers or soaked into a piece of cloth. Some substances, like nitrous oxide (found in whipped cream dispensers), are very cold and can freeze the skin. The pressure in the canister can also damage the lungs.

Inhalants cause an immediate and short-lived effect. People new to inhalants may experience excitement followed by drowsiness. Using more often leads to euphoria, vivid fantasies, and exhilaration, with some people experiencing increased confidence and giddiness. Unpleasant effects include nausea, blurred vision, slow reflexes, dizziness, vomiting, and light sensitivity.



RISKS

- Sudden sniffing death occurs after extended inhalation of highly concentrated inhalants causes an irregular and rapid heartbeat that can lead to heart failure and death. This can occur after only one session and when inhalation is followed by strenuous exercise or stress.
- Inhalant use can cause recklessness through reduced inhibition and increased sense of power.
- People who use inhalants sometimes suffocate because they use a bag to sniff and can pass out with the bag still around their nose and mouth. Another risk is vomiting and then choking on that vomit while unconscious.
- There are significant health risks associated with long-term use of inhalants, including impairments in memory and concentration, depression, paranoia, and damage to kidneys, heart, brain, liver, lungs, blood, and bones.
- Using inhalants while pregnant can harm the fetus, including birth defects, premature birth, or still birth.
- Nitrous oxide has some risks that are specific to it, which include lack of oxygen if sniffing pure nitrous oxide, losing motor control (which can lead to falls and other injuries), frostbite, lung damage, and nerve damage.
- Nitrites also have specific risks associated, including an increased risk of sexually transmitted infections like HIV and hepatitis C (some people use nitrites to increase pleasure during sex), and possibly a weakened immune system.

HARM REDUCTION

- Plastic bags should not be placed over the head. Small bags or bottles reduce the risk of passing out and suffocating.
- Avoid using in small, enclosed spaces (the reduced oxygen supply might lead to loss of consciousness).
- Don't smoke while sniffing, as the substances are highly flammable.
- Call an ambulance if a person passes out after sniffing, or if you are otherwise concerned about them.
- Avoid using alcohol or other drugs while sniffing.
- Know how to help in an emergency. The basics are:
 - Lay the person on their side to prevent choking if they vomit.
 - Take away what they have been sniffing and make sure they are breathing clean air.
 - If the person is conscious, keep them calm and relaxed until they have completely sobered up. Don't chase them or get them stressed or panicked.

TREATMENT

To date, cognitive behavioural therapy and contingency management (tying rewards to targeted behaviours like abstinence) have been helpful for some people, but more research is needed in order to identify the most effective treatment options for people with inhalant use disorders.

METHAMPHETAMINE

Methamphetamine (“meth”, “crystal”, “jib”, “speed”, “ice”, “crank”, “glass”, “side”, or “tina”) is a powerful synthetic central nervous stimulant. Although it has been used for medical purposes in the past (and still is, in a limited manner, in the United States), methamphetamine is not legally available in Canada due to its high potential for addiction and negative side effects.

Methamphetamine comes in tablets, capsules, chunks, powders, and off-white crystals. It is cheap, easily obtained, and made in small illegal labs with toxic, over-the-counter ingredients. The purity, strength, and effect varies widely, due to the variety of chemicals and processes used in manufacturing.

Methamphetamine can be snorted, smoked, injected, or swallowed, with smoking and injection providing immediate effects. Snorting produces effects within 3 to 5 minutes, and swallowing takes 15 to 30 minutes to produce effects. These methods produce euphoria, but not the intense rush and instantaneous effects of smoking or injecting. In this way, routes of administration play a role in potential for addiction. Effects can last from 4 to 24 hours, depending on the amount and purity of the drug. Users can become tolerant to the pleasurable effects but continue to feel the agitation associated with physical stimulant effects.

Methamphetamine causes euphoria, sexual enhancement, restlessness, decreased need for sleep and food, increased alertness and energy, and talkativeness.

Short-term negative effects of methamphetamine include sweating, jaw-clenching, irritability, anxiety or panic, elevated blood pressure and breathing rate, headache, increased heartrate, insomnia, and teeth grinding.



RISKS

- Once methamphetamine wears off, it often leaves people feeling depressed and tired, which can lead to binge use in order to stave off those feelings. This increases the risk of health risks and the development of dependence and stimulant use disorders.
- Long-term risks of methamphetamine use include tooth decay, weight loss, sores and skin picking, trouble sleeping, increased risk of stroke and heart disease, irritability, aggression, anxiety, paranoia, memory impairment, and hallucinations.
- High risk sexual behaviours are common in people who use methamphetamines, increasing the risk of acquiring HIV and hepatitis C. Injection drug use also increases risk of acquiring these blood-borne infections.
- Some people (between 8-27%) of people using methamphetamine experience methamphetamine-induced psychosis. Symptoms include hallucinations, paranoia, and delusions of being persecuted.
- Acute methamphetamine intoxication can result in elevated blood pressure, severe agitation, overheating, seizures, elevated heart rate, psychosis, and coma.
- Withdrawal symptoms include headaches, shortness of breath, fatigue, depression, stomach pain, and hunger. Withdrawal symptoms generally resolve without treatment and within 14 days of stopping use, however, depressive symptoms can last longer.

HARM REDUCTION

- Don't use alone.
- Don't share pipes.
- Encourage your child or loved one to use drug checking services, where they exist
- Pipes can be cleaned by burning off the residue and scrubbing it with alcohol wipes.
- Smoke should not be held in, rather it should be exhaled immediately.
- More harm reduction strategies and locations for supplies can be found at www.towardtheheart.com/safer-use.

TREATMENT

Psychosocial treatment interventions are recommended for stimulant use disorders including methamphetamine, as no pharmacological treatments have been found to be consistently effective. Psychosocial treatment interventions include cognitive behavioural therapy, contingency management, and the Matrix Model (a 16-week, behavioural approach combining family education, individual counselling, drug testing, behavioural therapy, 12-Step support, and encouragement for non-drug related activities), and intensive outpatient therapy.

Research into pharmacological treatment options is ongoing, but at this point there are no pharmacological treatments that are supported by evidence.

OPIOIDS

Opioids are a class of substances that activate opioid receptors in the brain. Opioids are commonly used for pain management and, at high doses, can cause euphoria.

Examples of opioids include heroin, codeine, morphine, oxycodone, fentanyl, methadone, buprenorphine/naloxone, and oxycodone. Opioids may be prescribed or obtained illegally, and are consumed in a variety of ways including swallowing a pill, snorting, inhaling (similar to smoking), smoking, wearing a patch, or by injecting. Some opioids, like morphine, are derived from the opium poppy, while others are synthetic (e.g., fentanyl) or semi-synthetic (e.g., oxycodone).

Opioids used at a high dose cause euphoria, followed by a relaxed warm feeling and the disappearance of fear and worry. The person using opioids may appear to be falling asleep where they sit or stand. At higher doses, the pupils of the eyes narrow to pinpoints, the skin becomes cold, and breathing is slower and more shallow. Opioids cause large amounts of dopamine (a brain chemical that makes you feel really good) to be released. In response to that, the brain starts to produce less dopamine, reducing the ability to experience pleasure and requiring larger amounts of the drug to feel the pleasurable effects of the drug. Eventually, what started as a pleasurable activity becomes a constant battle to avoid going into withdrawal (sometimes called being “dope sick”).

Withdrawal occurs when someone has developed a physical dependence to opioids and abruptly stops using them. Withdrawal has been described as the worst flu you can imagine, with symptoms including anxiety, agitation, cold sweats and/or hot flashes, diarrhea and cramping, muscle twitches, yawning, and a runny nose.

Opioids bought on the street are frequently mixed (or “cut”) with other substances to increase profits. These may include non-harmful substances like lactose or harmful contaminants including fentanyl and other synthetic opioids. Currently in BC, there is a public health crisis of street opioids (and other non-opioid drugs) being contaminated with fentanyl, carfentanil, and other highly potent synthetic opioids. Without testing one’s drugs, it is impossible to know what is in them.

These synthetic opioids significantly increase the risk of overdose, as they tend to be much stronger than heroin and the exact contents and strength are rarely known, especially when someone thinks that they are buying heroin and receive heroin mixed with an unknown amount of fentanyl. Fentanyl and other synthetic opioids have also been found in other drugs including cocaine, leading to opioid overdoses in individuals who do not think they’re taking opioids.



RISKS

- The development of tolerance to opioids is different for each person but can develop rapidly, requiring higher and higher doses just to feel “normal” and avoid withdrawal symptoms.
- Adverse effects include nausea, vomiting, itching, and constipation. Constipation can last for days or weeks and can lead to hospitalization and serious illness.
- People who inject opioids are at increased risk of hepatitis C and HIV. These risks disappear when people consistently use sterile injecting supplies and techniques.
- The unknown strength and contents of illicit opioids increases the risk of overdose, especially in the context of the current opioid overdose crisis in which highly potent synthetic opioids are being added to heroin and other drugs.
- Overdose. Opioids depress breathing. In an opioid overdose, breathing is so depressed that it slows dangerously or stops entirely, preventing oxygen from getting to the brain and other vital parts of the body and, without intervention, can cause death.
- Most overdoses are accidental, resulting from mixing opioids with other sedatives (like alcohol or benzodiazepines), taking a high dose after losing tolerance (for example after going through “detox” or not using in a long time), using for the first time, or taking opioids mixed with highly potent synthetic opioids. The majority of fatalities with overdoses occur when the person is alone.

SIGNS OF OVERDOSE

- Being unable to wake up. If they don’t respond to shaking and calling their name, they are in trouble.
- Slow breathing or no breathing.
- Snoring, choking, or gurgling sounds when breathing.
- Blue lips and nails.
- Cold clammy skin and/or sweating profusely.
- Tiny pupils.

OVERDOSE INTERVENTION

- If someone passes out or becomes unable to speak or move but is still breathing and has a pulse, lay them on their left side and CALL 911.
- If the person is not breathing, first CALL 911, then start giving rescue breaths (1 breath every 5 seconds) then evaluate. If they are still not breathing, and you or someone else have it on you, administer naloxone. Keep giving rescue breaths. If their breathing does not improve, give a second dose of naloxone. When the paramedics arrive, tell them what substances were taken (if known), how many doses of naloxone were administered, and how long the person has been unresponsive.

- There is an acronym that can be used to remember the steps in responding to an overdose: SAVE ME:
 - S - STIMULATE
If the person is unresponsive, call 911
 - A - AIRWAY
Check airway and make sure it is open (not blocked by anything)
 - V - VENTILATE
Give 1 breath every 5 seconds
 - E - EVALUATE
Are they breathing on their own? If not:
 - M - MEDICATION
Administer 1mL of naloxone into a muscle (thigh, buttock, upper arm) and keep giving rescue breaths
 - E - EVALUATE AND SUPPORT
If their breathing has not improved significantly, administer another dose of naloxone and continue to give rescue breaths
- It is important to know that, while naloxone reverses the effects of opioids, it is temporary. Someone who took a very large amount can go into distress again when the naloxone wears off, which is why it's important that they go to the hospital.

HARM REDUCTION

- Anyone who is using opioids or spends time with those using opioids should have a take-home naloxone (Narcan) kit. Take-home naloxone kits are available at many places including some pharmacies and clinics as well as harm reduction sites. A list of sites can be found here: <http://towardtheheart.com/naloxone> or you can talk to your pharmacist.
- Don't use alone. Most overdose deaths happen when people use alone and don't have anyone to help if they are in distress. Supervised consumption sites and overdose prevention sites have staff and/or volunteers on site who can respond to overdoses.
- Test a small amount first, then increase slowly.
- Use only one drug at a time. Mixing opioids with alcohol, benzodiazepines, or other sedatives is dangerous and increases the risk of overdose.
- General health impacts risk of overdose. Being run down, sick, or having a chronic illness can all increase the risk of overdosing.
- Be aware of tolerance. If someone hasn't used opioids in a while or they are using opioids for the first time, their tolerance will be quite low, putting them at higher risk of overdose.

TREATMENT

Opioid agonist treatment (methadone, buprenorphine/naloxone, slow release oral morphine, injectable opioid agonist treatments) is an evidence-based treatment for opioid use disorder that provides relief from withdrawal symptoms and cravings in people with opioid use disorder. It has been shown to be much more effective than withdrawal management (“detox”) alone in terms of keeping people in treatment, helping them to stop using opioids, and significantly reducing the risk of overdose, blood-borne infections (like HIV or hepatitis C), and death. More information on opioid agonist treatment can be found on page 44.

Although considered the standard approach for a long time, recent studies have found that withdrawal management alone (“detox”) for opioid use disorders is associated with very high rates of relapse putting individuals at high risk of overdosing and acquiring HIV and/or hepatitis C if they relapse. Individuals with opioid use disorders should work with their primary care provider or specialist to devise a treatment plan that promotes long-term recovery, rather than attending short term “detox” stays with no access to other treatments.

OTHER DRUGS (“CLUB DRUGS”)

KETAMINE

Ketamine (“special K”, “super K”, “K”) is an anesthetic used primarily in veterinary medicine and less commonly in human medicine. Ketamine is sometimes sold as or mixed with ecstasy. Effects of ketamine include vivid dreams, numbness in the body, hallucinations, blurred visions, and a feeling of the brain being disconnected from the body (called “dissociation”). Ketamine used recreationally is usually sold as a white powder, capsules, or tablets, and may be snorted, mixed into drinks, or dissolved and injected. Large doses of ketamine can lead to being withdrawn, a racing heart, difficulty breathing, and loss of consciousness. Because of its anesthetic properties, people who have taken it may injure themselves without knowing it. Ketamine is sometimes referred to as a “date rape drug” as it can be used to facilitate sexual assault, when given to someone without their knowledge.

PCP

PCP (“Angel Dust”) is another party drug similar to ketamine. High doses of PCP can cause seizures and coma, and interactions between PCP and sedatives like alcohol and benzodiazepines can also cause a coma.

GHB

GHB (gamma-hydroxybutyrate; “G”, “fantasy”, “liquid ecstasy”, or “liquid X”) is a depressant which causes drowsiness, slows breathing, and slows the heart rate. GHB is usually sold as a clear liquid in small vial. It has no smell and either no taste or a very mild salty taste that is easily covered by other flavours. GHB may also be bought as a white powder or capsule. GHB causes euphoria and sedation. It is also used to facilitate sexual assault and is sometimes referred to as a “date rape drug.” The line between a pleasant dose and a risky dose is very thin, with higher doses leading to drowsiness, dizziness, nausea, and vomiting. An overdose can cause difficulty breathing, convulsions, a low heart rate, and death. Long-term use can lead to tolerance (needing to take more to have the same effect) and physical dependence (which leads to unpleasant withdrawal symptoms if stopped abruptly). If your child or loved one has developed a physical dependence on GHB, it is important that they see a doctor as unsupervised withdrawal from GHB can be dangerous.

PSYCHEDELICS

Psychedelics (sometimes known as hallucinogens) are a group of drugs which can change a person's perception, making them see or hear things that don't exist. They can also produce changes in thought, sense of time, and mood. They vary widely in their origin and chemical composition.

Some psychedelics occur naturally. These include psilocybin, which is found in certain mushrooms ("magic mushrooms"), DMT, which is found in ayahuasca (a traditional Amazonian medicine), mescaline from the peyote cactus, and *Salvia divinorum* (or "salvia"), a plant in the mint family that can produce psychedelic effects. Others, such as LSD (commonly known as "acid") are manufactured in laboratories. People consume psychedelics in a wide variety of ways, including swallowing as a pill or liquid, brewing into a tea, snorting, and smoking. Route of administration depends on the specific substance.

Plants containing psychedelic substances have been used for a long time across a variety of cultures for medical and spiritual purposes. Synthetic psychedelics were developed in the 20th century, becoming popular in the 1960s and early '70s. Some psychedelics last for hours, while others (like DMT and salvia) have short-lived effects.

The psychedelic experience (often called a "trip"), varies from person to person, drug to drug, and episode to episode, and can range from feeling good and even having spiritual or mystical-type experiences to an intensely unpleasant experience (referred to as a "bad trip"), which can include feelings of anxiety, fear, or losing control. Other effects are a sense of time passing slowly, feelings of unreality, separation from the body, and a loss of boundaries between the self and the rest of the world. Intense sensory experiences, such as brighter colours, and a mixing of the senses (like hearing colours) may also be felt. Both positive and negative feelings may be felt during the same drug experience.



RISKS

- Having a “bad trip” can lead to panic, distress, paranoia and aggression. If this happens, the person should be reassured that they are under the influence of a drug and that the experience will pass, and be calmed down as much as possible. If they remain in extreme distress, they should go to the emergency department for care.
- Drugs may not contain what they are sold as, making effects unpredictable and potentially dangerous. Use drug-checking services, where they exist.
- Although rare, some users experience some drug-like effects long after (e.g., weeks or even months) after an initial trip. There is also evidence that existing mental illnesses such as psychosis, depression, and anxiety can be triggered or made worse by psychedelic substances.
- Fatalities or accidents can occur as a result of tripping in unsafe environments (for example, near water or a bridge) as psychedelics affect both perception and behaviour and can lead to disorientation and risk-taking. Driving while under the influence of psychedelics can also be very dangerous.
- People should never take LSD or other psychedelics alone, and one person should always remain sober to deal with any problems that may arise.
- Collecting and consuming wild “magic mushrooms” can be risky, as there is a significant risk of accidentally ingesting a poisonous toadstool or species of mushroom.
- Although physical dependence does not develop with regular psychedelic use (meaning that there are no withdrawal symptoms when abruptly ceased), some regular users may find that they start to feel like they need psychedelics because it has become important in their lives, for example for anxiety reduction or to have novel experiences.

TREATMENT

Psychedelics are generally considered to not lead to addiction or chronic dependent patterns of use.

TOBACCO

Tobacco is a plant that has been used for thousands of years for spiritual, healing and other cultural purposes by indigenous peoples in North, Central and South America.

The tobacco plant contains nicotine, which has both depressive and stimulating effects, the regular use of which can often lead to addiction. Tobacco is most commonly smoked in cigarettes, but may also be smoked in pipes or cigars, chewed, sniffed, or held inside the lip or cheek. Nicotine is also sometimes ingested using e-cigarettes or vaporizers (“vaping”). E-cigarettes are not well-regulated, meaning that the contents vary significantly between brands. Recent evidence suggests that e-cigarettes or vaping are less harmful than smoking regular cigarettes, however, the long-term health impacts of e-cigarettes are not known.

Tobacco smoking is the number one cause of preventable disease and death in Canada.

Tobacco use significantly increases the risk of developing cardiovascular (heart) disease, pulmonary (lung) disease, developing ulcers, developing osteoporosis, and is linked to a number of other cancers and diseases.

When a regular smoker user quits tobacco they will often experience symptoms of withdrawal, including irritability, cravings, anxiety, insomnia, restlessness, and difficulty concentrating. Some people who quit using tobacco experience depression. If this is the case, they should discuss it with their primary care provider.



RISKS

- Lung cancer.
- Higher risk of or linked to other cancers including mouth, throat, stomach, kidney, bladder, stomach, cervix, and colon.
- Higher risk of cardiovascular disease, including heart attacks and strokes.
- Higher risk of respiratory disease, including chronic bronchitis and emphysema.
- Weaker immune system leading to frequent colds and other illnesses.
- Pregnancy complications (miscarriage, low-birth rate, premature birth).
- Second-hand smoke also harms those around the smoker. It is linked to heart disease, lung cancer, and strokes in adults, and asthma, ear infections, respiratory infections, and sudden infant death syndrome in infants and children.

TREATMENT

There are pharmacological (medication) and non-pharmacological approaches to quitting tobacco. Combining the two options increases the chance of successfully quitting. Pharmacological options include nicotine replacement therapy (for example, the patch or gum), which reduces cravings and lessens symptoms of withdrawal. Bupropion (brand names Zyban and Wellbutrin) is a prescription medication that reduces the desire to use tobacco. Varenicline (brand name Champix) is a prescription medicine that reduces both cravings and withdrawal symptoms. Your child or loved one should speak to their doctor about these medications. If your child or loved one and their primary care provider decide that medication is the right choice, up to 12 weeks of nicotine replacement therapy, bupropion, or varenicline is covered by MSP in British Columbia.

Non-pharmacological approaches include behaviour modification like making lifestyle changes (for example, stress management, exercise, relaxation techniques), reducing the time spent with other smokers, using substitutes like gum or carrots to help manage cravings, and accessing support like a counselor, telephone hotline, or support group. The website www.quitnow.ca can help people in BC wanting to quit tobacco or nicotine. Their services can also be accessed by phone at 1.877.455.2233 or by texting “QUITNOW” to 654321.

YOU CAN HELP MINIMIZE THE HARM

Learn all you can about substance use and substance use disorders. Read books and articles, research local addiction services, attend your local meetings of Alcoholics Anonymous, Narcotics Anonymous, Alanon/Alateen, and Nar-anon, and consider accessing counselling and/or other support groups. Visit the BCCSU family portal on the website for a list of resources including support groups in BC.

The Here to Help website (www.heretohelp.bc.ca) is another great resource for family-friendly information. However, use a cautious degree of scepticism when you read information online, as the quality of information on substance use and addiction can be inaccurate, misleading, or for the purposes of generating profits.

See the Resource Section for some examples of reputable informational sites below and talk with your health care provider if you have any questions.

In addition to building your knowledge on substance use, there are other strategies you may consider, depending on your child or loved one's age, your relationship with them, and their particular circumstances.

Consider doing the following:

- Provide accurate information for your child or loved one. Scare tactics can easily backfire as they may erode trust if they have been scientifically discredited or found to be untrue for your child or loved one. Don't preach, just try to open a discussion or leave information around the house.
- Do not judge your child or loved one as weak, stupid, or lacking in will power because she or he is unable to control their substance use. Addiction is a disease and can happen to anyone. It knows no boundaries.
- Take heart. While it may seem that young people take all their cues from their peers, parental values and attitudes win out more often than you think.
- Don't be afraid to talk to your child or loved one's friends, if age-appropriate. If you avoid and alienate the peer group your child or loved one has chosen, you will also alienate your child or loved one.
- Try to ensure that your child or loved one's friends know the risks of alcohol and other drug use, appropriate harm reduction strategies, and can recognize overdose symptoms and act quickly. This is particularly important with younger teenagers and substances such as crystal meth, ecstasy, cocaine, prescription drugs, and alcohol. Friends are the most likely to be able to keep tabs on unusual behaviour.
- Talk to the parents of your children's friends, if age-appropriate.
- Talk with your children's teachers and other adults in their lives that spend time with them (if appropriate)
- If your child or loved one is getting medical care or addiction treatment, while their health care providers have to respect their confidentiality and not share private medical information, you are allowed to share any information that you think is relevant. This can help provide a clearer clinical picture for their health care provider.

Using alcohol or other drugs can lower inhibitions and increases the likelihood that a person may engage in high-risk behaviours such as risk unprotected sex, or impaired driving, or will participate in other high-risk behaviours such as fighting, stealing, and trading dares. Having open and honest conversations about high-risk behaviours and strategies to mitigate that risk will help your child or loved one make safer choices.

These conversations may include the following:

- Talk to your child or loved one (if appropriate) about safer sex, including condoms and other forms of birth control use and consent. The rule about using a condom and other forms of birth control applies generally, but extra vigilance is required because alcohol and other drugs can interfere with good judgment, causing loss of inhibitions and impulse control.
- Stress that your child or loved one can call you at any time of the night to be picked up, or that you will pay for a cab ride home (as long as this is something that you are willing to do).
- Encourage the designation of a “voice of reason” for their group. This individual should commit to being sober for the night or event and can look for signs of drug overdose or a bad reaction and can be responsible for seeking help, should things go wrong. They may also be a designated driver.

PREVENTING FATALITIES

- Make sure that your child or loved one and their peer group know:
- Mixing drugs is extremely dangerous. Mixing alcohol with other sedative drugs (sometimes called “downers”) like opioids (heroin, fentanyl), benzodiazepines, or GHB is very dangerous and significantly increases the risk of overdose.
- Using alone is dangerous and should be avoided. Most opioid overdose deaths occur when someone uses alone.
- Signs of a bad reaction to drugs or overdose should not be ignored. If somebody passes out, is incoherent, or a sleeping person has laboured or rattling breath, is snoring in an unusual way, or can't be woken up, it is crucial to call an ambulance—DIAL 911.
- That the Good Samaritan Drug Overdose Act means that someone at the scene of an overdose will not be charged with simple possession or for breaching probation or parole if 911 is called for medical assistance.
- That street drugs, particularly street-acquired opioids, have been largely tainted with fentanyl and other synthetic drugs which significantly increases the risk of overdose and death. This is true of drugs beyond heroin and other opioids, and may include methamphetamine or cocaine.
- If they are injecting opioids, needle exchange distribution sites, overdose prevention sites, and supervised consumption sites and overdose prevention sites can be found here: <http://towardtheheart.com/safer-use>.
- Where to get a take-home naloxone kit (see <http://towardtheheart.com/site-finder> for a list of sites) and how to administer naloxone. An online naloxone training is available at <http://www.naloxonetraining.com>.
- If somebody is unconscious but still breathing normally, lay them on their side and pull the head back slightly to stretch the neck so their breathing will be unobstructed. If necessary, clear their airway of vomit or mucus and roll the person on their side. Do not put anything in their mouth.
- The signs of an opioid overdose:
 - Unresponsive—doesn't move and can't be woken
 - Slow or not breathing
 - Choking or gurgling sounds or snoring
 - Blue lips or nails
 - Cold or clammy skin
 - Tiny pupils
- How to respond to an opioid overdose—call 911, give rescue breaths, and administer naloxone. (See p. 43 for more information on responding to an opioid overdose.)
- Be ready to give ambulance staff information about what has been taken so that treatment can be administered effectively and immediately.
- It is better to deal with an unpleasant situation than for someone to suffer brain damage or death.

“At 14 I got into raves, and gave up good friends because I thought they were too immature for me. I got into drug use more heavily and started using crystal meth. This led to being on the streets. That was not fun. I didn't care about anything, like my new 'friends'—friends because they want your money or your drugs.

One day I went to my parents and asked for help. I have come out of it with tools and skills that a normal person would never have. I'll be able to pass them on to my children.”



It's possible that your child or loved one may end up living on the street or spending a lot of time on the street while sleeping at friend's houses or staying in shelters.

Some parents feel that they need to apply “tough love”—that they cannot allow their child to live at home if he or she is lying, stealing, or otherwise destroying domestic peace and order. In other situations, leaving home may feel like the best choice a person using alcohol or other drugs has.

There are many reasons why people end up living on the street—they may leave home as a young person due to conflict, childhood abuse, or other untenable situations, or they may lose their housing as an adult for a variety of reasons.

If your child or loved one is living on the street, try to maintain contact, and make safety a priority. Offer to buy a coffee or a meal or just spend time together. You may wish to deny requests for money, as they may use cash to buy drugs. That is a decision you will need to make.

For many parents, a child's return home will depend on at least honest attempts to deal with problematic substance use. Only you can decide what conditions you will be comfortable with. Just make sure you are clear at the time of return what your boundaries are and then stick to them.

While there are many reasons young people leave home, research has shown that the following factors increase the chances of them coming home: Renewing trust, having open and honest communication, and all parties accepting responsibility for any actions that negatively impacted their relationship and may have contributed to the young person's decision to leave home.

If your child does come home, be prepared to listen and try not to judge. Your child may have broken the law in a variety of ways to get money for food or drugs.

What you hear may be deeply disturbing, but try to focus on the positive. Your child is off the streets now. This may be an opportunity for a fresh start. Emphasize the continuing need for safe practices and new habits.

Remember, you can be open and forgiving and still maintain your boundaries.