

7.3 Marijuana and Other Drugs

Cannabis sativa (Latin for “cultivated hemp”) is the plant from which marijuana, sinsemilla, hashish, and hash oil are produced. Tetrahydrocannabinol (THC) is the major psychoactive, or mood-altering, ingredient in these drugs. Marijuana is the most popular form of cannabis. The medical uses and decriminalization of cannabis have been the subject of much debate. In 2015, the Canadian government announced plans to decriminalize and regulate the use of cannabis by 2018.

Various **psychoactive drugs** are commonly available in Canada. These drugs affect the body’s **central nervous system (CNS)**. Health Canada classifies them according to the effects they have on us.

- **Marijuana** acts primarily as a hallucinogen but also has depressant and stimulant effects.
- **Hallucinogens** alter a person’s perception of reality. These distortions can increase the risk of accidents and injuries. Among hallucinogens are LSD (acid), psilocybin (magic mushrooms), and mescaline.
- **Depressants** lower, or slow down, the activity of the CNS and reduce inhibitions. Depressants are easy to obtain but can be very dangerous. Examples include alcohol, solvents such as glue or gasoline, tranquilizers and sleeping pills, and club drugs.
- **Stimulants** speed up body systems such as the CNS and the cardiorespiratory system. Stimulants include nicotine, caffeine, diet pills, a medication called Ritalin®, cocaine and crack, and methamphetamine (speed).

Short-Term Effects of Marijuana Use

Although it's the most commonly used mood-altering drug in Canada and around the world, less than 3 percent of Canadian teens report using marijuana daily.

- Some people who use marijuana regularly want to escape stress or negative thoughts. Some like the way marijuana makes them feel.
- Some may see it as a ticket to a certain social network. Others may be attracted to its forbidden quality or want to experiment.
- The effects of smoking marijuana are almost immediate and last from two to four hours. If the drug is eaten, the effects appear more gradually, last longer, and can be more intense.
- Typically, using marijuana or cannabis causes red eyes, dry mouth and throat, increased appetite, and problems with concentration and short-term memory.
- Marijuana produces a mix of depressant effects, such as relaxation, and stimulant effects, such as an increased heart rate. Sensory perception seems enhanced, and sense of time and space is distorted.
- Some people experience more intense, unpleasant effects, such as hallucinations, anxiety, and depression. A few experience panic, paranoia, or an increase in psychiatric symptoms that already existed.

Long-Term Effects of Marijuana Use

Although some people may be able to use marijuana occasionally, a person who has developed a full dependency will find it very difficult to control. The more a person uses most drugs, including marijuana, the more likely the person may suffer from long-term negative effects.

- **Respiratory system.** Like tobacco smoke, marijuana smoke damages the respiratory system. The two contain many of the same carcinogens, but marijuana smoke has higher amounts of them and also more tar. Marijuana smokers inhale more deeply and hold the smoke in their lungs longer. If marijuana is smoked with nicotine, these problems are compounded.
- **The brain.** Heavy long-term use of marijuana affects memory, concentration, and the brain's ability to organize and process complex information. Lack of motivation and lack of interest in life also seem to go hand in hand with regular long-term use—although no one knows if this is a direct effect or actually a factor in starting to use marijuana.
- **Mental and emotional health.** Research has shown that marijuana use can make the symptoms of schizophrenia worse in people who already have it. It can bring on the disorder if a person is predisposed to it. Long-term marijuana use may induce schizophrenia in a person who has no predisposition to it.
- **Pregnancy.** A woman's marijuana use during pregnancy can have a negative effect on the mental development of the child.
- **Dependence.** People who use marijuana can develop a tolerance for the drug and will gradually need more to get the same effect. Treatment programs in Canada report that marijuana is the drug of choice for an increasing number of clients.

Withdrawal symptoms may be relatively mild compared to those from other substances but can include anxiety, irritability, insomnia, sweating, and loss of appetite. These symptoms and psychological cravings can make it difficult to quit.

Treatment for marijuana dependence is much like treatment for other substance dependencies. It usually involves working with a counsellor to learn the skills to live well without the use of any substance.



Table 7.1 The Classification of Drugs—The Risks and Effects

Class of drug and examples	Short-term effects (can have at least one effect)	Risks and harms (can include some of these)
Cannabis		
<ul style="list-style-type: none"> • Marijuana • Sinsemilla • Hash • Hash oil 	<ul style="list-style-type: none"> • Increased appetite • Drowsiness • Feelings of relaxation • Feelings of well-being, euphoria 	<ul style="list-style-type: none"> • Anxiety • Panic reactions • Onset of schizophrenia
Hallucinogens		
<ul style="list-style-type: none"> • Mescaline • Peyote • Psilocybin (magic mushrooms) • Phencyclidine (PCP, or angel dust) • Lysergic acid diethylamide (LSD) • MDMA (methylenedioxyamphetamine, or ecstasy) • MDA (methylenedioxyamphetamine) 	<ul style="list-style-type: none"> • Muscle twitches • Dizziness, nausea, vomiting • Altered/distorted body image • Visual and auditory distortions, hallucinations • Feelings of enhanced mental capacity • Loss of touch with reality 	<ul style="list-style-type: none"> • Erectile dysfunction • Panic reactions • Psychosis • Flashbacks • Anxiety • Depression • Memory and thinking problems • Poor judgment leading to accidents or death
Central nervous system (CNS) depressants		
<ul style="list-style-type: none"> • Alcohol • Solvents • Inhalants • Minor tranquilizers (Valium®, Ativan®) • Sleeping medications (Halcion®, Imovane®) • Barbiturates (Tuinal®) 	<ul style="list-style-type: none"> • Slurred speech • Decreased motor skills • Decreased inhibitions • Increased confidence • Feelings of relaxation • Intoxication • Poor judgment • Impaired memory and thinking 	<ul style="list-style-type: none"> • Respiratory problems • Seizures • Liver disease • Heart disease • Increased risk of some cancers • Fetal alcohol spectrum disorder • Brain damage • Fatal overdose
► Opiates/narcotics (a sub-class of CNS depressants)		
<ul style="list-style-type: none"> • Various prescription painkillers • Morphine • Codeine • Heroin 	<ul style="list-style-type: none"> • Constipation • Decreased breathing rate • Pinpoint pupils • Pain relief • Drowsiness • Intoxication followed by euphoria 	<ul style="list-style-type: none"> • Pulmonary (lung) problems • Hepatitis (from sharing needles) • HIV/AIDS (from sharing needles) • Increased risk of some cancers • Brain damage • Coma • Death from respiratory failure
Central nervous system (CNS) stimulants		
<ul style="list-style-type: none"> • Amphetamines (including crystal meth) • Methylphenidate (Ritalin®) • Cocaine and crack cocaine • Nicotine • Caffeine 	<ul style="list-style-type: none"> • Increased heart rate and blood pressure • Decreased appetite • Dilated pupils • Hallucinations • Increased energy • Euphoria • Feelings of enhanced sociability, sexuality, confidence 	<ul style="list-style-type: none"> • Insomnia • Lack of sexual interest • Panic reactions • Extreme anxiety • Paranoid psychosis • Depression • Seizures • HIV/AIDS (from sharing needles) • Heart attack/stroke

Hallucinogens

Hallucinogens include a wide range of naturally occurring substances (for example, mescaline, peyote, and psilocybin, which is found in a species of mushroom) and synthesized substances (for example, LSD, PCP, MDA, and ecstasy). These drugs greatly distort the senses and, as their classification implies, can cause hallucinations. Most of these substances are taken orally.

The effects of LSD

Lysergic acid diethylamide (LSD), commonly known as acid, is one of the most common hallucinogenic drugs. It is extremely powerful—a pill the size of an aspirin could contain 3,000 doses of pure LSD. The drug is a tasteless, odourless, fine white powder that is sold in capsules or tablets.

As is the case with other drugs, the effects of LSD can be unpredictable. Usually, the first effects of the drug are felt 30 to 45 minutes after taking it. People taking LSD may feel several emotions in quick succession—from euphoria (a feeling of intense well-being) to sadness or fear, and back again.

It is not uncommon to experience disorienting sensations that can lead to a "bad trip" involving anxiety and terrifying thoughts and feelings. Because LSD trips last 12 hours or more, a negative experience can be deeply disturbing.

A person cannot overdose or become physically dependent on LSD. However, regular use can lead to experiences of upsetting flashbacks in which the effects of LSD are felt without taking the drug again.

The effects of ecstasy

Ecstasy (methylenedioxymethamphetamine, or MDMA) is considered a hallucinogen, but it also has stimulant effects. It is made in illegal drug labs and goes by names such as E, XTC, Adam, Euphoria, or X. It usually comes in gelatin capsules or coloured tablets that may have a design such as a dove or a diamond on one side. Ecstasy can also come as a powder that people using it can snort or, less commonly, dissolve and inject.

The effects of ecstasy have a great deal to do with the state of mind and health of the person using it. The pupils dilate, the jaw tightens, and blood pressure and heart rate increase. Other effects include nausea, sweating, dry mouth and throat, and loss of appetite.

Some people using ecstasy report a heightened awareness of their surroundings, greater appreciation of music, and more intense sensory experiences.

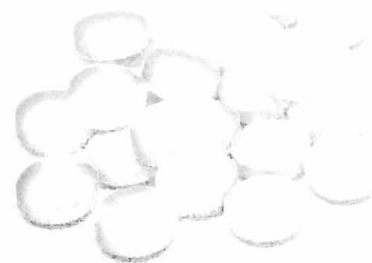
Long-term ecstasy use may cause short-term memory impairment, depression, mood changes, and disrupted sleep patterns. Other possible long-term effects include flashbacks or psychosis. The signs of an overdose include eye rolling, chest pain, and seizures.

Club Drugs

Club drugs are illegal and dangerous substances associated with some dance clubs and party venues.

Little is known about the long-term effects of these substances, which often contain unknown additives or impurities. Among club drugs are ketamine, GHB, and Rohypnol®.

The latter two, known as rape drugs, are sometimes used intentionally to sedate and then sexually assault an unsuspecting person. Rape is a form of violent sexual assault and is a very serious criminal offence.



A Risky Mix

Produced naturally in the leaves and seeds of many plants, caffeine is defined as a drug because it stimulates the CNS, making you more alert.

What happens when you mix highly caffeinated energy drinks with alcohol?

In 2016, researchers at the University of Victoria's Centre for Addictions Research of BC conducted the first systematic review of published research on the subject.

They found that of 13 studies that fitted their research criteria, ten made a link between increased risk of injury and drinking a mix of alcohol and energy drinks, compared to drinking alcohol only. The studies included unintentional injuries such as falls or car accidents and intentional ones resulting from fights or other physical violence.



Depressants

Depressants get their name because they depress the activity of the central nervous system (CNS). This class of drugs includes alcohol, some prescribed medications, opiates, and inhalants.

Depressants should never be combined with other substances that cause drowsiness, even cold and allergy medications. Combining some drugs can multiply their effects, slowing breathing and heart rate to the point of death.

To stop taking a depressant after prolonged use can lead to withdrawal. The brain's activity can rebound once use stops, causing seizures. It is always important to consult a physician before stopping a medication.

Barbiturates and tranquilizers

Barbiturates were developed to treat sleep problems, anxiety, high blood pressure, and seizures. Some are used as anesthetics.

Tranquilizers called benzodiazepines are often prescribed for anxiety, nervousness, and sleep problems, and to relax muscles. Although they are safer and have fewer side effects than barbiturates, they are generally recommended only for short-term use because they can lead to dependence.

Opiates

Opiates are a highly addictive sub-class of depressants. Some are produced naturally. Opium and morphine, for example, come from the seed pod of the Asian poppy. Others are produced synthetically in laboratories. Codeine, Demerol®, Dilaudid®, and Percodan® are examples.

Synthesized opiates have valuable medical uses as painkillers (oxycodone) or cough suppressants (codeine), but they should be taken only under medical supervision because it's not uncommon to become dependent.

Heroin is a very powerful opiate. It can be sniffed, smoked, taken orally, or injected under the skin, but it's usually injected directly into a blood vessel—a practice known as mainlining.

Heroin and other opiates slow the body's functions and suppress or reduce physical and emotional pain. Feelings of relaxation, detachment, and reduced anxiety are common effects.

People do successfully give up long-term use of heroin and other opiates, but coming off and staying off these drugs can be difficult.

Inhalants

Inhalants such as paint thinners, modelling glue, gasoline, and cleaning fluids induce euphoria and light-headedness while slowing the body's systems. They can cause brain damage, suffocation, and death.

Stimulants

Stimulants speed up, or excite, the central nervous system (CNS).

Examples of stimulants include caffeine, nicotine, cocaine, amphetamine-type stimulants, and a medication called methylphenidate, commonly known as Ritalin®. Stimulants are typically used to increase alertness, decrease appetite, delay fatigue, and produce feelings of well-being. For people with attention deficit hyperactivity disorder (ADHD), however, the stimulant Ritalin® has a calming effect.

Use of stimulant drugs can result in severe psychological and physical dependence, which can make it difficult to stop using them.

Cocaine

Cocaine is a strongly addictive stimulant processed from the leaves of the coca plant. Crack is a smokable form of cocaine made by adding baking soda to a cocaine solution and allowing the mixture to dry.

In Canada, the most common form of cocaine is a fine white crystalline powder that is often diluted with sugar, cornstarch, or talcum powder. It can be sniffed, absorbed through mucous membranes in the mouth, smoked, or injected.

People who use cocaine say they feel more alert, energetic, confident, physically strong, and intelligent. Although they perceive those benefits, they are actually experiencing numerous negative psychological and physical effects as well.

Large doses can cause severe agitation, paranoid thinking, erratic or violent behaviour, muscle spasms, hallucinations, convulsions, and even death. Impurities in street cocaine can bring on a fatal allergic reaction.

People typically experience depression and extreme tiredness after using cocaine. Those who inject cocaine get a short-lived high, so they need to inject several times a day to maintain the high. If they share needles, they greatly increase their risk of contracting HIV and/or hepatitis.

