Substance use problems

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Outline

- Substance-related disorders
- What is the risk of addiction?
- Why do people develop addictions?
- Types of substances

Many people use substances such as alcohol in moderate amounts and don't experience any problems. However, some people may start using larger amounts regularly, or using substances to get intoxicated. These behaviours can lead to problems with a person's job, family and health. After repeated abuse, some people may become dependent on the substance.

SUBSTANCE-RELATED DISORDERS

There is no clear line that indicates when substance use becomes a problem that is severe enough to need treatment. However, the *DSM-IV* includes substance-related disorders as one of the classes of mental health disorders. Many clinicians use the DSM's diagnostic criteria for *substance abuse* and *substance dependence* to help screen and assess people for concurrent disorders.

Substance Abuse

People who abuse substances regularly may have ongoing serious problems without being dependent on the substance. Some of these problems are:

- inability to fulfil responsibilities (e.g., being absent from work, doing poorly in school or neglecting duties at home)
- dangerous use (e.g., using substances in physically dangerous situations, such as when driving a car)
- legal problems (e.g., being arrested for disorderly conduct following substance use)
- social and family problems (e.g., arguing with family members about being intoxicated).

If one or more of these problems has a significant impact on a person's life, the person may be diagnosed with a substance abuse disorder.

Substance Dependence

People who are dependent on substances have major physical, mental and behaviour problems that can have serious effects on their lives. Some of the signs of substance dependence are:

- tolerance: the need to use larger and larger amounts of the substance to get the desired effect, such as intoxication
- withdrawal: having unpleasant symptoms if substance use stops; continued substance use with the same or similar drugs to avoid or reduce withdrawal symptoms
- desire to cut down or quit: many unsuccessful attempts to reduce or stop using the substance
- time investment: a great deal of time spent getting the substance, using it or recovering from its effects

- retreat from usual activities: giving up or reducing work, social or recreational activities, and withdrawing from family and friends to use the substance privately or to spend more time with friends who use substances
- ongoing use: substance use continues despite the negative effects.

If three or more of these problems are ongoing during a 12-month period, a person may be diagnosed with a substance dependence disorder.

A person does not need signs of tolerance or withdrawal to be dependent. For example, people who are dependent on marijuana show a pattern of compulsive use without any signs of tolerance or withdrawal. *Compulsive use* means people keep using substances in spite of the negative consequences, even though they want to stop and have tried to stop. Many people who are substance dependent also experience cravings. A *craving* is an urge or a longing for a substance.

Addiction

Addiction has been defined in many ways. Some of the technical definitions are similar to the way in which substance dependence is defined (see above). Most people use the term more broadly to refer to compulsive behaviours, including substance use, that cause problems. People persist with these behaviours in spite of strong negative consequences.

If we use this definition, addiction can be thought of as existing on a continuum. Substance abuse is a less severe form of addiction than substance dependence. Other forms of addictive behaviour include smoking, problem gambling and compulsive sexual behaviours.

WHAT IS THE RISK OF ADDICTION?

Research suggests that the risk of addiction varies across behaviours and substances:
- about two per cent of people who gamble meet diagnostic criteria for problem gambling
- between five and seven per cent of people who drink alcohol meet diagnostic criteria for alcohol dependence
- about 10 per cent of people who use cocaine meet diagnostic criteria for cocaine dependence
- about 80 per cent of smokers meet diagnostic criteria for nicotine dependence—the highest rate of substance dependence.

Addictive behaviours are difficult to change because they are activities to which the person becomes strongly attached. They also tend to have immediate positive consequences (this is known as *positive reinforcement*). People who have stopped an addictive

behaviour sometimes compare it to saying goodbye to a very close friend or leaving a relationship that was very important to them.

When helping someone with an addictive behaviour, it is important to understand how attractive the behaviour is to the person. As the behaviour intensifies, it increasingly preoccupies the person. Other interests and needs tend to become less important, and the behaviour becomes the primary or only way that the person gets satisfaction, even as the negative consequences grow.

WHY DO PEOPLE DEVELOP ADDICTIONS?

Not everyone who engages in a pleasurable behaviour ends up becoming addicted. At many levels, behaviours that can become addictive are either encouraged or discouraged by larger social forces (think of advertising) or by factors that are within the person (biological or psychological). If we understand the ways that behaviours can be powerfully rewarding for people, instead of viewing addictive behaviour as inherently bad or totally negative, we can begin to have a more sympathetic understanding of the problems of substance dependence and other addictive behaviours.

As the biopsychosocial model suggests, the causes of addictive behaviours are complex, and can include the following:

- A person usually perceives the behaviour itself as being strongly rewarding in some way. The nature of the reward, however, may vary from person to person, and may change over time. Some individuals may be rewarded by the energizing, exciting or pleasurable effects of a substance or of a behaviour such as gambling.
- Some people may engage in addictive behaviours because the physiological or psychological effects relieve physical or emotional suffering.
- Addictive behaviours may divert attention from distressing or overwhelming life circumstances. For example, some substances may temporarily lessen the symptoms associated with anxiety, depression or chronic frustration. Unfortunately, many of the destructive consequences associated with addictive behaviours—for example, damage to relationships, finances, self-esteem and emotional and physical health; development of physiological tolerance and ultimately increased anxiety, depression and other symptoms—may draw the person even deeper into his or her addiction. As the consequences associated with the behaviour grow more severe, a person feels less able to address the problem. Even when it reaches the point where the person is not getting any positive rewards, the person may keep using to avoid the distress of having to quit the behaviour. For example, many people dependent on substances report using substances long after they stop experiencing any pleasant effects.

The biopsychosocial approach to understanding substance dependence

BIOLOGICAL FACTORS

There is evidence that some people inherit a higher risk of dependent behaviours than others. To have a sibling or a parent with a history of dependence is to be at higher risk. We are learning more about the biological dimensions of addictions. These behaviours themselves might produce biological changes that make the person more vulnerable to relapsing (returning to the behaviour).

PSYCHOLOGICAL FACTORS

Any powerfully rewarding experience encourages a person to repeat the experience. There are many aspects of addictive behaviours—including the rituals, the environmental factors, and the thoughts and feelings that are involved—that can help us understand addictive behaviours. Usually the rewards from these behaviours show up first, while the costs tend to follow later or gradually build up over time. When someone feels a powerful urge, and the reward is immediate, while the negative consequences are nowhere in sight, it is tempting to give in to the power of the moment.

SOCIAL FACTORS

Addictions are strongly shaped by our relationships with other people and by interpersonal processes.

Peer factors help to determine if someone will experiment with a behaviour such as using tobacco, alcohol, marijuana or other drugs that may cause dependency.

Availability affects the risk of a behaviour becoming addictive. The increase in opportunities to gamble in the western world has led to an increase in the number of people with gambling problems in the region. Making cigarette smoking in public spaces illegal, along with higher prices through taxation, has led to significant decreases in the numbers of people who smoke.

Cultural factors also shape what people consider to be acceptable or unacceptable behaviours.

TYPES OF SUBSTANCES

This section describes three major types of substances[1]:

- depressants: drugs that slow the central nervous system (CNS) functions (e.g., make people feel more relaxed and less conscious of their surroundings)
- stimulants: drugs that increase CNS activity (e.g., speed up mental processes to make people feel more alert and energetic)
- hallucinogens: drugs that alter perceptions and sense of time and place; drugs that can produce hallucinations.

The following drug classification chart shows drugs that fall into each of these categories.

DEPRESSANTS	
Opioids • morphine • heroin • methadone • codeine • pentazocine (Talwin) • oxycodone (in Percocet, Percodan, OxyContin) • hydromorphone (Dilaudid) **Alcohol** **Inhalants** • gasoline • toluene	**Anxiolytics** **Benzodiazepines** • diazepam (Valium) • lorazepam (Ativan) • oxazepam (Serax) • clonazepam (Rivotril) • alprazolam (Xanax) • temazepam (Restoril) **Barbiturates** • secobarbital (Seconal) • butalbital (in Fiorinal)

[1] The Centre for Addiction and Mental Health has published 20 brochures describing substances in the Do You Know…series. For more information, visit www.camh.net/Publications/CAMH_Publications/do_you_know_index.html.

STIMULANTS	
Amphetamines • dextroamphetamine (Dexedrine) • methamphetamine • methylphenidate (Ritalin) **Cocaine/Crack**	**Methylenedioxyamphetamine (MDA)** **3,4-methelynedioxymeth-amphetamine (MDMA) (ecstasy)** (also has hallucinogenic actions) **Nicotine** **Caffeine**
HALLUCINOGENS	
LSD **Mescaline**	**Cannabis (marijuana)** (also has CNS depressant activity) **Phencyclidine (PCP)**

Depressants

Depressants include:
- alcohol (e.g., beer, wine, liquor)
- opiates, sometimes called narcotics (e.g., heroin and pain medication such as demerol, morphine, codeine)
- benzodiazepines, sometimes called tranquillizers (e.g., Valium and Ativan, prescribed to help people sleep or to reduce anxiety)
- barbiturates, sometimes called downers (e.g., Nembutal, Seconal)
- cough and cold remedies (e.g., Benylin with codeine)
- allergy medications (e.g., Benadryl and Sudafed)
- other over-the-counter drugs (e.g., antinausea drugs such as Gravol).

Depressants slow your central nervous system and affect the parts of the brain that control thinking, behaviour, breathing and heart rate. Depressant drugs such as alcohol, opioids and benxodiazepines can make you drowsy, slow your reaction time, and hinder your ability to pay attention or concentrate. The same is true for drugs with depressant side-effects—drugs such as cold remedies, cough medicines, antihistamines to control allergy symptoms, and drugs to prevent nausea or motion sickness.

Mixing any depressant drug with alcohol, which is also a depressant, can be extremely dangerous. The combined effects of the two drugs are sometimes much greater than the effect of either one alone.

ALCOHOL

Alcohol is the depressant that is used and abused most often.

How does alcohol make you feel?

The way alcohol affects you depends on many factors, including:
- your age
- your gender
- your body weight
- how sensitive you are to alcohol
- the type and amount of food in your stomach
- how much you drink
- how often you drink
- how long you've been drinking
- how you expect the alcohol to make you feel
- whether you've taken any other drugs (illegal, prescription, over-the-counter or herbal)
- whether you have certain pre-existing medical or psychiatric conditions.

For many people, a single drink of alcohol releases tension and reduces inhibition, making them feel more at ease and outgoing. Some people feel happy or excited when they drink, while others become depressed or hostile.

Women are generally more sensitive to the effects of alcohol than men, and all adults become increasingly sensitive to alcohol's effects as they age. When someone is more sensitive, it takes less alcohol to cause intoxication, and more time for the body to eliminate the alcohol consumed.

Is alcohol dangerous?

Alcohol can affect judgment, behaviour, attitude and reflexes. The impact of these effects can range from embarrassment to unwanted or high-risk sexual contact to violence, injury or death. Alcohol is involved in more regrettable moments, crimes and traffic fatalities than all other drugs of abuse combined.

Extreme intoxication can kill, often as the result of the person "passing out" while vomiting and choking. Clammy skin, low body temperature, slow and laboured breathing and loss of bladder and bowel control are signs of acute alcohol poisoning, which can be fatal.

Mixing alcohol with other drugs—prescribed or recreational—can have unpredictable results. Alcohol may either block the absorption of the other drug, making it less effective, or it may increase the effect of the other drug, making it dangerous.

Is alcohol addictive?

It can be. Most alcohol-related illnesses, social problems, accidents and deaths are caused by *problem drinking*. This term describes alcohol use that causes problems in a person's life, but does not include physical dependence. Problem drinking is four times as common as severe alcohol dependence.

Physical dependence involves tolerance to alcohol's effects and withdrawal symptoms when drinking is stopped. People who are physically dependent on alcohol can develop withdrawal symptoms, such as sleeplessness, tremors, nausea and seizures within a few hours after their last drink. Even after long periods of abstinence, a person may continue to crave alcohol, and may begin to drink again.

Opiates

Opiates include heroin, codeine and morphine. They may be prescribed by a doctor for severe pain. Under medical supervision, these strong painkillers are safe in the short term.

Opiates not only relieve pain, but in excess amounts can cause intoxication, giving them a high addictive potential. Opiate use is a problem when the person who is using them either has no medical reason to use them, or is using the drug in larger amounts than needed to manage pain. People who are dependent become extremely tolerant to the drug (they need to increase the amount to get the same level of intoxication) and will undergo withdrawal if they stop using abruptly.

Opiate drugs are often bought illegally. People may fake or exaggerate medical problems when talking to doctors to get prescriptions they don't need, or they may get several prescriptions from different doctors. Sometimes these drugs end up on the streets in the hands of drug dealers.

HEROIN

Heroin is a dangerous and illegal drug with high addictive potential.

How does heroin make you feel?

The way heroin, or any drug, affects you depends on many factors, including:
- your age
- how much you take
- how often you take it
- how long you've been taking it
- the method you use to take the drug
- whether you've taken any alcohol or other drugs (illegal, prescription, over-the-counter or herbal)
- whether you have certain pre-existing medical or psychiatric conditions.

When heroin is injected into a vein, it produces a surge of euphoria, or a "rush." This effect is felt in seven to eight seconds, and lasts from 45 seconds to a few minutes. The initial effect with snorting or smoking is not as intense. Following the rush comes a period of sedation and tranquility known as being "on the nod," which may last up to an hour. When heroin is injected under the skin or into a muscle, the effect comes on more slowly, within five to eight minutes.

New users often experience nausea and vomiting. The desired effects include detachment from physical and emotional pain and a feeling of well-being. Other effects include slowed breathing, pinpoint pupils, itchiness and sweating. Regular use results in constipation, loss of sexual interest and libido, and an irregular or a stopped menstrual cycle in women.

Heroin use causes changes in mood and behaviour. People who are dependent on heroin may be docile and compliant after taking heroin, and irritable and aggressive during withdrawal.

How long does the feeling last?

Regardless of how it is taken, the effects of heroin generally last for three to five hours, depending on the dose.

People who are dependent on heroin must use every six to 12 hours to avoid symptoms of withdrawal. The initial symptoms are intense, and include runny nose, sneezing, diarrhea, vomiting, restlessness and a persistent craving for the drug. Also associated with withdrawal are goosebumps and involuntary leg movements, leading to the expressions "cold turkey" and "kicking the habit." Withdrawal symptoms peak within a couple of days, and usually fade within five to 10 days. Other symptoms, such as insomnia, anxiety and craving may continue for some time. Heroin withdrawal is not life-threatening, but can be extremely uncomfortable.

Is heroin dangerous?

Yes. Overdose is the most immediate danger of heroin use. Heroin depresses the part of the brain that controls breathing. In an overdose, breathing slows, and may stop completely. A person who has overdosed is unconscious and cannot be roused, and has cold, moist and bluish skin. A heroin overdose can be treated at a hospital emergency room with drugs, such as naloxone, which block heroin's depressant effects.

The risk of overdose is increased by:

- the unknown purity of the drug, which makes it difficult to determine the correct dose, and harder to protect from overdose (ironically, many overdoses are due to increases in the quality of the drug sold on the street)
- injection, because the drug reaches the brain more quickly than by other ways of taking the drug, and because the dose is taken all at once
- combining heroin with other sedating drugs, such as alcohol, benzodiazepines and methadone.

Other dangers associated with heroin use include the following:
- Consequences of injection: Injection drug use puts the user at high risk not only of overdose, but also of bacterial infection, blood poisoning, abscesses, endocarditis (an infection of the lining of the heart) and collapsed veins. Sharing needles greatly increases the risk of becoming infected with, or spreading, HIV and hepatitis B or C.
- Unknown content of the drug: For example, heroin is often cut with additives that may be poisonous, such as strychnine, or that do not dissolve and can clog blood vessels, such as chalk.
- Combining heroin with other drugs: Taking heroin with another drug such as cocaine (speedballs) results in unpredictable, and sometimes deadly, drug interactions in the body.
- Dependence: The constant need to obtain heroin, and the repeated use of the drug, can result in criminal involvement or other high-risk behaviour, breakdown of family life, loss of employment and poor health.
- Pregnancy: Women who use heroin regularly often miss their periods; some mistakenly think that they are infertile, and become pregnant. Continued use of heroin during pregnancy is very risky for the baby.

Is heroin addictive?

Yes. Regular use of heroin, whether it is injected, snorted or smoked, can lead to physical and psychological dependence within two to three weeks.

Not all people who experiment with heroin become dependent. Some use the drug only on occasion, such as on weekends, without increasing the dose. With regular use however, tolerance to the effects of the drug develops, and more and more heroin is needed to achieve the desired effect. Continuous use of increasing amounts of the drug inevitably leads to dependence.

Once dependence is established, stopping use can be extremely difficult. People who have used heroin for a long time often report that they no longer get any pleasure from the drug. They continue to use heroin to avoid the symptoms of withdrawal, and to control the powerful craving for the drug, which is often described as a "need." Cravings may persist long after the drug is discontinued, making relapse (beginning to use again) difficult to avoid.

Stimulants

Stimulants include:
- cocaine and "crack" (a potent form of cocaine)
- amphetamines such as methamphetamine
- ecstasy
- caffeine in coffee, tea, cola drinks, "power" drinks and "stay-awake" pills
- over-the-counter medications such as allergy medicines (e.g., Sudafed).

Stimulants increase activity in the central nervous system, including the brain. For example, they speed up mental processes and make people feel more alert and energetic. But while a drug such as caffeine may make you more alert, it still leaves you impaired, and when it wears off, sometimes quickly, it leaves you very tired and less alert.

COCAINE

People who use cocaine can become dependent after using it for short periods of time. An early sign of cocaine dependence is when a person finds it harder and harder to resist using cocaine whenever it is available.

Crack is a commonly used form of cocaine. Unlike other types of cocaine, it is easily turned into a vapour and inhaled. As a result, its effects are immediate.

Because cocaine breaks down in the body quickly, people frequently find they need to use cocaine often to maintain a high. People who are dependent can spend huge amounts of money on the drug in a short period. To get the large amounts of money needed, they may become involved in theft, prostitution or drug dealing. A person who is cocaine-dependent may often need to stop using for a few days to find more money to buy the drug.

Tolerance to cocaine occurs after repeated use. Withdrawal symptoms, particularly a poor mood, may occur but they often do not last long.

How does cocaine make you feel?

How cocaine makes you feel depends on:
- your age
- how much you use
- how often you use
- how long you use
- how you take it (e.g., by injection, orally or snorting)
- your mood
- how you expect it to make you feel
- whether you've taken any alcohol or other drugs (illegal, prescription, over-the-counter or herbal)
- whether you have certain pre-existing medical or psychiatric conditions.

Cocaine increases heartbeat, breathing, blood pressure and body temperature. It makes people feel energetic, talkative, alert and euphoric. They feel more aware of their senses, such as sound, touch and sight. Hunger and the need for sleep are reduced. Although cocaine is a stimulant, some people find it calming, and feel increased self-control, confidence and ease with others. Other people may feel nervous and agitated, and can't relax.

Taking high doses of cocaine for a long time can lead to:
- panic attacks
- psychotic symptoms, such as paranoia (feeling overly suspicious, jealous or persecuted), hallucinations (seeing, hearing or smelling things that aren't really there) and delusions (having false beliefs)
- erratic, bizarre and sometimes violent behaviour.

With regular use, people may become tolerant to the euphoric effects of cocaine. This means that they need to take more and more of the drug to get the same desired effect, or that they get less effect from the same amount of the drug. At the same time, people who use the drug regularly may also become more sensitive to its negative effects, such as anxiety, psychosis (hallucinations, loss of contact with reality) and seizures.

Is cocaine dangerous?

Yes. While many people use cocaine on occasion without harm, the drug can be very dangerous. Whether it's used once or often:
- Cocaine causes the blood vessels to thicken and constrict, reducing the flow of oxygen to the heart. At the same time, cocaine causes the heart muscle to work harder, leading to heart attack or stroke, even in healthy people.
- Cocaine raises blood pressure, which can explode weakened blood vessels in the brain.
- A person can overdose on even a small amount of cocaine. Overdose can cause seizures and heart failure. It can also cause breathing to become weak or stop altogether. There is no antidote to cocaine overdose.
- Snorting cocaine can cause sinus infections and loss of smell. It can damage tissues in the nose and cause holes in the bony separation between the nostrils inside the nose (nasal septum).
- Smoking cocaine can damage the lungs and cause "crack lung." Symptoms include severe chest pains, breathing problems and high body temperatures. Crack lung can be fatal.
- Injecting cocaine can cause infections from used needles or impurities in the drug. Sharing needles can also lead to a person getting, or spreading, hepatitis or HIV.
- Chronic use can cause severe psychiatric symptoms, including psychosis, anxiety, depression and paranoia.
- Cocaine use is linked with risk-taking and violent behaviours. It is also linked to poor concentration and judgment, increasing risk of injury and sexually transmitted diseases.
- Chronic use can cause weight loss, malnutrition, poor health, sexual problems, infertility and loss of social and financial supports.
- Cocaine use in pregnancy may increase the risk of miscarriage and premature delivery. It also increases the chance that the baby will be born underweight. Because women who use cocaine during pregnancy often also use alcohol, nicotine and other drugs, we do not fully know the extent of the effects of cocaine use on the baby.
- Cocaine use while breastfeeding transmits cocaine to the nursing child. This exposes the baby to all the effects and risks of cocaine use.

Is cocaine addictive?

It can be. Not everyone who uses cocaine becomes dependent, but if they do, it can be one of the hardest drug habits to break.

People who become dependent on cocaine lose control over their use of the drug. They feel a strong need for cocaine, even when they know it causes them medical, psychological and social problems. Getting and taking cocaine can become the most important thing in their lives.

Smoking crack, with its rapid, intense and short-lived effects, is most addictive. However, any method of taking cocaine can lead to dependence. The amount of drug used, and how often people use the drug, has an effect on whether they become dependent.

Cocaine causes people to "crash" when they stop using it. When they crash, their mood swings rapidly from feeling high to distress. This brings powerful cravings for more of the drug. Bingeing to stay high leads quickly to dependence.

Symptoms of cocaine withdrawal can include exhaustion, extended and restless sleep or sleeplessness, hunger, irritability, depression, suicidal thoughts and intense cravings for more of the drug. The memory of cocaine euphoria is powerful, and carries a strong risk of relapse to drug use.

Hallucinogens

Hallucinogens include:
- cannabis/marijuana (the most common hallucinogen)
- LSD (the best-known hallucinogen)
- ecstasy (sometimes called "the love drug")
- solvents (e.g., glue, paint thinner, gasoline)
- ketamines (a painkiller originally developed to treat animals; sometimes called "special K").

The term hallucinogen is used to describe drugs that produce distortions of reality. Hallucinogens are sometimes called "psychedelic drugs." Hallucinogens dramatically affect perception, emotions and mental processes. They distort the senses and can cause hallucinations. Hallucinations are sensory images similar to dreams or nightmares—a person may see, taste or hear things that are not really present, except they occur when a person is awake.

CANNABIS

Cannabis is the most commonly used illicit drug in Canada (after alcohol and tobacco use by minors). However, most cannabis use is infrequent and experimental.

Research has shown that THC and other pure cannabinoids can relieve nausea and vomiting and stimulate appetite. This can help people who have AIDS or who take drugs used to treat cancer. While there is plenty of anecdotal evidence, further research is needed to establish the medical value of marijuana in relieving pain, reducing muscle spasms and controlling some types of epileptic seizures.

How does cannabis make you feel?

How cannabis makes you feel depends on:
- your age
- how much you use
- how often you use
- how long you've been using it
- whether you smoke it or swallow it
- your mood
- how you expect it to make you feel
- whether you've taken any alcohol or other drugs (illegal, prescription, over-the-counter or herbal)
- whether you have certain pre-existing medical or psychiatric conditions.

At low doses, cannabis mildly distorts perception and the senses. People who use it say the drug makes music sound better, colours appear brighter and moments seem longer. They say it enhances taste, touch and smell and makes them feel more aware of their body.

Smoking large amounts may intensify some of the desired effects, but is also more likely to produce an unpleasant reaction. Too high a dose may induce the feeling of losing control, confusion, agitation, paranoia and severe anxiety attacks that resemble panic attacks. Pseudohallucinations (seeing things such as pattern and colour that you know are not real) or true hallucinations (where you lose touch with reality) can occur.

Is cannabis dangerous?

While no one has ever died of a cannabis overdose, those who use cannabis should be aware of the following possible dangers:
- Cannabis impairs depth perception, attention span and concentration; it slows reaction time, and decreases muscle strength and hand steadiness—all of which may affect a person's ability to drive or operate machinery safely.
- Cannabis and alcohol, when taken together, intensify each other's effects, and cause severe impairment.

- Cannabis intoxication affects thinking and short-term memory.
- Illegal cannabis products are not subject to any health and safety standards and may be contaminated with other drugs, pesticides or toxic fungi.
- Large doses of potent cannabis, especially when swallowed, can cause "toxic psychosis." Symptoms include auditory and visual hallucinations (hearing or seeing thing that are not really there), confusion and amnesia (partial or complete memory loss).

Is cannabis addictive?

It can be. People who use cannabis regularly can develop psychological or mild physical dependence.

People with *psychological dependence* crave the high. The drug becomes overly important to them, they may feel they need it, and if they can't get it, they may feel anxious.

Long-term, frequent use can lead to *physical dependence*. People with physical dependence may experience mild withdrawal symptoms if they suddenly stop using cannabis. Symptoms can include irritability, anxiety, upset stomach, loss of appetite, sweating and disturbed sleep.

Activity 2-1: Identifying substance categories

Some of the substances may fit into more than one category. Match the substances to the primary category in which they belong:

- If you think the substance belongs in the depressant category, write the letter D beside it.
- If you think the substance belongs in the stimulant category, write the letter S beside it.
- If you think the substance belongs in the hallucinogen category, write the letter H beside it.

Substance	*Category*	*Substance*	*Category*
Beer:	_____	Valium:	_____
Heroin:	_____	Benadryl:	_____
Codeine:	_____	Crack:	_____
Ecstasy:	_____	Demerol:	_____
Gravol:	_____	Sudafed:	_____
Cannabis:	_____	Glue:	_____
Morphine:	_____	Methamphetamine:	_____
Liquor:	_____	Wine:	_____
LSD:	_____	Ativan:	_____

Answers: Beer: D; Heroin: D; Codeine: D; Cocaine: S; Ecstasy: H; Gravol: D; Morphine: D; Cannabis: H; Liquor: D; LSD: H; Valium: D; Benadryl: D; Crack: S; Demerol: D; Sudafed: S; Glue: H; Methamphetamine: S; Wine: D; Ativan: D

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