

Learn about...

# Cannabis (marijuana)

## What is cannabis?

Cannabis is the scientific name for the hemp plant. The hemp plant has roots, a stalk, leaves, flowers and seeds.

Cannabis stalks are fibrous and are used to make clothing, paper, textiles and fuel. The seeds contain essential fatty acids and are used for nutritional purposes. The leaves and flowers are used for their physical and psychoactive (mind-altering) effects.

Cannabis is commonly called marijuana, a slang word that originated in Mexico and refers only to the leaves and flowers of the hemp plant. Hemp typically refers to plants grown for fiber and seed. The earliest record of cannabis use comes from Taiwan more than 10,000 years ago. Today, cannabis grows wild and is cultivated in many parts of the world. Studies indicate that there are at least two distinct species of the hemp plant: Cannabis sativa and Cannabis indica. Breeders have developed hundreds of different strains of both of these species.

Cannabis is consumed in several forms, including:

- dried flowers or 'buds' (marijuana)
- pressed 'resin' from flowers and leaves (hashish or hash)
- loose 'resin' (kief)
- concentrated 'resin' extracted with a solvent (hash oil)

Cannabis in these forms can be smoked in a joint, or through a pipe or bong (water pipe). It can also be vapourized to produce a vapour instead of smoke. Sometimes cannabis is mixed with other herbs and smoked. Cannabis can be ingested when added to cake, cookies and other foods, or it can be brewed into a tea or other beverage. It can be extracted into alcohol as a tincture and absorbed through the mucous membranes in the mouth. It can also be applied to the skin in a salve.

## How does cannabis work?

Cannabis leaves and flowers have a resin containing unique molecules called cannabinoids. There are more than 60 types of cannabinoids, but the best known, and the one with the most significant psychoactive effect, is commonly called THC (delta-9-tetrahydrocannabinol). Concentrations of THC may range widely from plant to plant, but most plants contain between two and five per cent THC. 'Resin' products typically contain between eight and 14 per cent THC. Other plant molecules called terpenoids and flavonoids also have medicinal properties that contribute to the overall effect of each cannabis strain.

Cannabinoids fit into the body's cannabinoid receptor sites found in the brain and other parts of the body, particularly in the



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nervous and immune systems. For example, cannabinoids bind to receptors on the pain centre of the brain and provide temporary relief. They suppress hormones normally produced in response to stress. They also stimulate an increase of dopamine in the brain. Dopamine is a naturally occurring chemical (neurotransmitter) which activates the brain's "pleasure pathway."

When cannabis is inhaled, cannabinoids are absorbed through the lungs and into the bloodstream. The effects are felt within minutes and generally last a few hours. When swallowed, cannabinoids are absorbed through the stomach and travel through the body. The effects take longer to be felt, are stronger and last much longer.

Cannabis has different effects on different people. It can make one person feel calm and relaxed. It can make another person feel energized and stimulated. It can make yet another person feel anxious and paranoid. The effects depend on many factors, including:

- dosage
- strain
- setting or environment
- person's history of use
- person's biochemistry
- person's mood or mindset
- person's diet

### Why do people use cannabis?

For thousands of years, people all over the world have been using cannabis for social, spiritual and medical reasons.

Many people who use cannabis socially say it helps them to relax and increases their sense of well-being. Some like the feeling of being 'high' or in an altered state of consciousness. Many users experience a 'time-slow' effect, enhanced senses and increased creativity.

A growing number of people are using cannabis to relieve the symptoms associated with many health conditions, including HIV/AIDS, cancer, multiple sclerosis, Crohn's disease and arthritis. Some use cannabis to relieve the side effects of medications and treatments for these and other health conditions.

Some people may use cannabis as a form of social rebellion. Some use it out of habit.

They may have been using it for so long that it has become part of their lifestyle, similar to the way some other people routinely use alcohol or coffee.

### What are the potential health effects of using cannabis?

Research shows that cannabis can help relieve pain, nausea, muscle spasms, anxiety, depression, fatigue and insomnia. It can also promote weight gain and appetite. These effects make cannabis useful for treating many different health conditions and related symptoms.

While some people find the effects of cannabis beneficial for their health and well-being, not everyone has pleasant experiences with cannabis. Some people get moody or down. High doses of THC can cause panic attacks and temporary psychosis, including paranoia and hallucinations, in some people. Anxious reactions occur most often in new users, or after eating cannabis.

Cannabis can alleviate anxiety and depression, but it can also make these conditions worse. Some people with schizophrenia may find relief from their symptoms by using cannabis, but others may find it increases their symptoms. Cannabis may also prompt an early onset of schizophrenia in those who are vulnerable to the disorder because of a personal or family history with the condition.

Cannabis is associated with temporary short-term memory loss. It is also associated with the regeneration of brain cells after a brain injury or stroke, and as the brain ages.

For a period of time after smoking or ingesting cannabis, users may experience some physical and cognitive effects, such as increased heart rate, slower reaction times and drowsiness, which can impair their psychomotor skills. Such effects occur most often in new or occasional users, or in people using large amounts of cannabis. These effects can last from two to four hours when cannabis is smoked, and twice as long when cannabis is ingested. Because cannabis is fat soluble it may be detected in the blood or urine for a month or more following use; however that does not mean any lasting effects will be experienced by the user.

While smoking cannabis has not been found to cause lung cancer, heavy long-term use can cause respiratory problems, including shortness of breath and chronic bronchitis. The practice of inhaling cannabis deeply and holding it in the lungs may lead to greater lung irritation without significantly increasing the desired effects.

Sharing joints in ways that involve direct contact with the lips, or sharing other smoking implements without sterilizing them between use may increase the risk of transmitting saliva-borne infections such as meningitis or flu.

### When is using cannabis a problem?

Whenever a person's cannabis use negatively affects their life or the lives of others, it can be considered problematic. As with other drugs, the potential for harm from cannabis use depends on various factors related to the substance, the person using it, and the context.

Using cannabis has the potential to be problematic when a person is:

- **drinking alcohol or using other drugs**—cannabis mixed with alcohol may cause vomiting and nausea and can amplify the effects of some other substances
- **using tobacco at the same time**—mixing tobacco with cannabis increases a person's risk of developing serious physical health problems
- **suffering from mental health problems**—in some cases, cannabis can make existing mental health issues worse
- **using large amounts**—long-term heavy use can lead to health problems
- **suffering from a heart condition**—cannabis may increase a person's heart rate and reduce blood pressure
- **driving**—cannabis use may lead to impairment which can negatively affect driving ability

Heavy cannabis use can lead to mild dependence. This means the person has come to rely on the effects of cannabis. Some people may develop a tolerance to cannabis.

### Fast facts about cannabis use in British Columbia

- Cannabis is the most commonly used illegal drug in BC.
- BC has the highest percentage of lifetime cannabis use in Canada (53 per cent compared to the national average of 44 per cent). Approximately 71 per cent of 35- to 44-year-olds report using cannabis at least once in their lives.
- 17 per cent of BC residents have used cannabis in the past year. Thirty five per cent of 15- to 24-year-olds have used cannabis in the past year.
- Males are more likely than females to be current cannabis users. Approximately 21 per cent of males and 13 per cent of females report using cannabis at least once in the previous year. The number of students who have tried marijuana has decreased from 37 per cent in 2003 to 30 per cent in 2008.
- A third of cannabis users in BC reported using cannabis for medicinal reasons, such as depression and multiple sclerosis.
- Regional differences show more youth trying marijuana in the northern, interior and Vancouver Island Regions (38 per cent) compared to the Fraser (25 per cent) and Vancouver Coastal (21 per cent).

This means they need an increasing amount of cannabis to get the effect they want.

Some users experience withdrawal effects when they stop using cannabis, such as irritability and loss of appetite. These effects are relatively minor, and most people who want to stop or cut down their cannabis use are able to do so without much effort. However, some people are more successful with support.

Compared to many other legal and illegal drugs, harms associated with cannabis are minimal. For example, cannabis use does not result in death by overdose. Most people who try cannabis do not continue to use it. Most people who use cannabis tend to do so moderately. About six per cent of cannabis users experience health, social or legal problems related to their use. Research suggests that the greatest harms from cannabis are not related to health effects, but arise from the consequences resulting from its legal status. These include restrictions on employment and international travel, and family discord caused by interactions with law enforcement and the criminal justice system.

### Is cannabis legal?

For the most part, possessing, selling and growing cannabis is illegal in Canada. Under current laws, offenders may receive a fine, a prison term and a criminal record. In 2001, the federal government created the Medical Marijuana Access Regulations, allowing some people to possess and grow cannabis for medical reasons.

### What to do if you or someone you know is experiencing a problem with cannabis

For information on treatment options and resources, call:

#### Alcohol and Drug Information Referral Service

1-800-663-1441 (throughout BC)  
604-660-9382 (in Greater Vancouver)

For information on ways to help yourself or someone else with a substance use problem, see the “Tips” section of the Here to Help website: [www.heretohelp.bc.ca](http://www.heretohelp.bc.ca). You can also find information on a wide variety of substance use issues at [www.carbc.ca](http://www.carbc.ca).

### What to do if you or someone you know is experiencing a health issue for which cannabis may be helpful

For more information about the medical use of cannabis, contact

#### Marihuana Medical Access Division

1-866-337-7705

or see “Medical Use of Cannabis (Marijuana)” at [www.heretohelp.bc.ca](http://www.heretohelp.bc.ca).



heretohelp