

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. There are three species of the hemp plant: *Cannabis sativa*, *Cannabis indica* and *Cannabis ruderalis*.

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

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 over 10,000 years ago. Today cannabis grows wild and is cultivated in many parts of the world. Breeders have developed hundreds of different strains of cannabis.

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 **vaporized** to produce a vapour instead of smoke. Sometimes cannabis is **mixed with other herbs** and smoked. Cannabis can be **swallowed** when added to cake, cookies and other foods or 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. And it can be **applied to the skin** in a salve.

How does cannabis work?

Cannabis leaves and flowers have a resin containing unique chemicals called cannabinoids. There are more than 60 types of cannabinoids, but the best known is commonly called THC (delta-9-tetrahydrocannabinol). It has the most significant psychoactive effect. Concentrations of THC may range widely from plant to plant, but most contain 2–5% THC. Resin products typically contain 8–14% THC.

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



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“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. And it can make yet another person feel anxious and paranoid. The effects depend on many factors, including:

- dosage
- strain of cannabis
- 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 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.

An increasing 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 people use cannabis out of habit. They may have been using the drug for so long that it’s now part of their lifestyle, much in the same way as cigarettes, alcohol or coffee may form part of the everyday routine of other

people.

What are the risks and health effects of using cannabis?

Research shows that cannabis can help relieve pain, nausea and 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 to be 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 also can make them worse. Some people with schizophrenia may find relief in using cannabis, but others may find cannabis 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 using cannabis, users may experience some physical and cognitive deficits. These reactions occur most often with high dosages and in new or occasional users.

While cannabis smoking does not appear to cause lung cancer, heavy long-term cannabis smoking can cause lung 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.

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 is the case 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. In some cases a person may develop tolerance to cannabis. 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.

Fast facts about cannabis use in BC

- Cannabis is the most commonly used illegal drug in BC.
- BC has the highest percentage of past cannabis users in Canada (35% compared to the national average of 44%). 7% say they have used cannabis in the past 1–3 months (compared to the national average of 6%).
- In BC, 22% of males and 10% of females aged 15–24 use cannabis weekly or daily.
- In Vancouver, cannabis was named the 'first drug tried' (other than alcohol or tobacco) by 94% of youth aged 16–25 who participated in a 2006 survey. Half of the group said they believed there was no risk in using cannabis.

Compared to many other legal and illegal drugs, harms associate 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. Studies show about 6 % of cannabis users experience health, social or legal problems related to their use.

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 with a substance use problem, see the “Tips” section of the Here to Help website: www.heretohelp.bc.ca. The website also features detailed information on substances and mental health disorders.

You can also find information on a wide variety of substance use issues on the Centre for Addictions Research of BC website: www.carbc.ca.

