

Learn about...

Cocaine

What is cocaine?

Cocaine is a stimulant drug. It is made from the processed leaves of the *Erythroxylum coca* bush, which is native to the Andes Mountains of South America.

Aboriginal people were chewing coca leaves for centuries before they were first formally processed into cocaine in Germany in the mid-1800s. The drug was then used in many Western countries as a tonic in medicines and beverages. Some medical professionals used cocaine as an anesthetic and treatment for various mental and physical disorders. However, the medical use of cocaine stopped when its potential for dependence was recognized.

Today most of the world's supply of cocaine comes from growing and refining operations in Colombia. The drug is sold on the street in three main forms:

- cocaine hydrochloride salt (fine white powder that is often mixed with similar-looking substances such as cornstarch and then rubbed into the gums, dissolved in water and injected or, most commonly, sniffed into the nostril or "snorted")

- freebase cocaine (a smokable substance that is created when hydrochloride salt is removed through heating and an alkaline solution is added)
- crack (a type of freebase that comes in chunks or rocks and can be heated and vaporized for smoking, or liquefied with water and ascorbic acid for injection)

The freebase forms of cocaine produce a more intense high than the powder form. But all forms of cocaine speed up activity in the central nervous system.

How does cocaine work?

When cocaine is snorted, it is quickly absorbed through membranes in the nose and travels to the brain. The effects usually last for an hour or more. When cocaine is injected, it goes directly into the bloodstream and reaches the brain in seconds. The rush comes faster and with more intensity, but it goes away in about 20 minutes. When freebase cocaine or



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crack is smoked, the drug is absorbed in the lungs and produces a quick, intense high. The sensation lasts only a few minutes.

Cocaine triggers the release of dopamine, a chemical (neurotransmitter) in the brain associated with pleasure. It also prevents the reabsorption of the dopamine and causes a buildup between nerve cells. The result is intense pleasure and even exhilaration.

As a stimulant, cocaine increases a person's heart rate and blood pressure. It also activates the area of the brain involved in memory and learning. Users often become more talkative and anxious.

Why do people use cocaine?

Some people try cocaine because they have heard about its effects and are curious about how it will feel. Others try it because their friends offer it to them. A first-time user might enjoy the pleasurable sensations of cocaine so much that they use the drug again.

Many people remain occasional or recreational users who use cocaine in small amounts. Some become binge users. They snort or freebase large quantities of the drug over an extended period of time.

Cocaine sometimes serves as a means of emotional relief for people coping with personal problems or life pressures. Those who rely on cocaine to feel good are at greatest risk of dependence. Regular use also poses serious threats to a person's health and social well-being.

Some people prefer to use crack for recreational or emotional purposes because it's less expensive than powder cocaine. It also delivers a more intense high.

What are the risks and health effects of using cocaine?

Cocaine is often mixed with substances that look similar to the drug. A user is always at risk of consuming something toxic. They are also at risk of using a mix with a higher-than-normal concentration of cocaine. This can lead to overdose and death.

Moderate amounts of high-quality cocaine can make a person feel elated, energetic and more confident. But when a person is coming down from their high, or "crashing," they usually feel depressed, tired and irritable.

People who regularly snort cocaine can suffer from a stuffy, runny or bloody nose. Their nostrils may get chapped, and the nasal septum separating them can get damaged.

Frequent freebasers can suffer from throat and lung damage. They may cough up dark phlegm and blood. Those who inject cocaine can develop skin infections.

Frequent use of large amounts of cocaine can cause twitching, spasms and convulsions.

Heavy chronic users who are crashing or trying to stop using the drug may experience:

- headaches
- seizures
- cardiac disruption
- sleeping difficulties
- weight loss
- constipation
- problems with sexual performance

Symptoms of crashing also include restlessness and agitation, leading to panic attacks. Some users may become paranoid and suffer from severe mood swings, hallucinations and delusions. Attention and memory lapses are also common.

When is using cocaine a problem?

Whenever a person's cocaine use negatively affects their life, or the lives of others, they have a problem with the drug.

Using cocaine is especially dangerous when a person is:

- **mixing substances:** Combining cocaine with heroin (called "speedballing") is highly dangerous and can lead to overdose. Mixing cocaine with other substances is also risky.
- **sharing needles:** This increases a user's risk of contracting blood-borne diseases such as HIV and hepatitis C.
- **pregnant or breastfeeding:** Using cocaine while pregnant can cause miscarriage or premature birth. Babies may be born with a small head, low-birth weight and other physical problems. Newborns may have sleeping and feeding problems. Cocaine can be transferred into a baby's system through breast milk.

People who use cocaine frequently, or who binge for several days, are more likely to develop cocaine tolerance. Their bodies then require an increasing amount

of the drug to achieve the same effects. Heavy regular use of cocaine can result in dependence. They may develop withdrawal symptoms when they stop using the drug. Withdrawal symptoms include sleeping disturbances, anxiety and a strong craving to use the drug again.

Some people develop cocaine cravings so strong they continue to use the drug even when it causes physical, psychological, social, legal or financial problems. Some even do risky things in order to sustain their habit.

Is cocaine legal?

Buying, selling and using cocaine is illegal and a criminal offense in Canada. The maximum penalty for producing and trafficking cocaine is life imprisonment (25 years).

Fast facts about cocaine use in BC

- In 2004, 16.3% of people in BC reported using cocaine in their lifetime.
- 2.6% of British Columbians used cocaine at least once during the past year.
- More people use cocaine than amphetamine, ecstasy, heroin and inhalants.

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

For information on treatment options and resources throughout BC, call the **Alcohol and Drug Information Referral Service** at 1-800-663-1441. In Greater Vancouver, call 604-660-9382.

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.



**BC Partners for
Mental Health and
Addictions Information**

The BC Partners are a group of nonprofit agencies working together to help individuals and families manage mental health and substance use problems, with the help of good quality information. We represent Anxiety Disorders Association of BC, BC Schizophrenia Society, Canadian Mental Health Association's BC Division, Centre for Addiction Research of BC, FORCE Society for Kid's Mental Health, Jessie's Hope Society, and Mood Disorders Association of BC. The BC Partners are funded by BC Mental Health and Addiction Services, an agency of the Provincial Health Services Authority. Produced by Centre for Addictions Research of BC.