

Learn about...

Heroin

What is heroin?

Heroin is made from the chemical processing of morphine, a drug derived from the *Papaver somiferum* plant (opium poppy). The plant has been cultivated for thousands of years in ancient civilizations in Europe and Asia. Today, Afghanistan is the world's largest producer.

Heroin was introduced to Western nations in the late 19th Century as a strong pain killer and cough suppressant. It stopped being used for medicinal purposes when doctors and other professionals recognized its potential for causing dependence.

The purest form of heroin is a fine, white, bitter-tasting powder. On the street, heroin is often mixed or "cut" with other substances to increase its weight and effects. Street heroin is often brown and lumpy. Sometimes it looks like dark, sticky gum.

Like other depressant drugs, heroin slows down activity in a person's brain and central nervous system. It also creates an extremely pleasurable, relaxing sensation.

How does heroin work?

Heroin can be snorted (inhaled through the nostril) or smoked. It can also be dissolved in water and injected. After it enters the body, it travels through the bloodstream to the brain.

In the brain, heroin mimics endorphins (painkilling chemicals the body produces naturally when injured or in shock). When heroin binds to nerve cell receptors reserved for endorphins, the painkilling effect is magnified. The result is an intense rush that lasts for several minutes, followed by a warm sensation and feeling of contentment. This can last for an hour or more. The overall high may continue for up to five hours.

Since heroin affects nerve cells related to motor activity, users typically experience a heavy feeling in their arms and legs.



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Why do people use heroin?

Some people try heroin because they've heard it delivers an intense rush and wave of peacefulness. Others simply want to experiment with a new drug. Some want to impress their friends by daring to use a riskier drug than alcohol or cannabis.

Some people use heroin as a kind of pain reliever when coming down or "crashing" after bingeing on cocaine or another substance.

Repeated use of heroin can be a sign that a person is having difficulty coping with

problems in their life. For many users, heroin provides temporary relief from stress, physical pain or emotional pain. However, when a person uses heroin for emotional reasons, they increase their chances of becoming dependent on the drug.

Some regular users of heroin can stabilize their dependence. Others have a hard time managing their cravings for the drug. Because heroin withdrawal symptoms are both strong and unpleasant, many people continue using the drug even when they don't want to.

What are the risks and health effects of using heroin?

All heroin use is risky because the drug is unregulated and sold on the street. A user can't be sure what they're really buying. Sometimes dealers add substances to the drug to make their stash last longer. Some of these substances may be toxic.

New heroin users sometimes suffer from nausea and vomiting. They may also begin twitching.

Larger amounts of heroin, or small amounts at higher concentrations, can cause extreme drowsiness. They can also put users at risk of becoming comatose or having respiratory failure. This can shut down a person's coughing and expulsion reflex, causing them to inhale and choke on their own vomit.

Frequent longer-term use of heroin can cause constipation and problems with the heart, lungs and liver. Both men and

Fast facts about heroin use in BC

- In 2004, less than 2% of British Columbians reported using heroin in their lifetime.
- 18- to 19-year-olds reported the highest illicit drug use rate of any age group.
- People of all education and income levels use heroin.
- Many users are able to regulate their heroin intake and maintain a responsible and respectable public profile.
- In 2005, there were 208 deaths and 4,817 illnesses attributed to use of illegal drugs including heroin.

women may experience a decreased libido. Women may suffer from menstrual irregularities and infertility. The reduced desire for food can lead to an unhealthy diet and malnutrition.

Because of the costs of purchasing heroin illegally on the street, many long-term heavy users go deeply into debt. Some become desperate for drug money and exploit their friends and family. Some turn to prostitution and criminal activity. Often they have a hard time keeping their jobs and maintaining a healthy, balanced life. However, those who are able to buy heroin safely and regularly experience fewer problems with nutrition, work and relationships.

When is using heroin a problem?

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

Using heroin is also very dangerous when it involves:

- **mixing substances:** Using heroin with alcohol or other depressants can lead to overdose. Combining heroin with cocaine or other stimulants can be lethal.
- **using needles:** Injecting heroin increases a user's risk of infection and overdose. Sharing needles increases a user's risk of getting a blood-borne disease such as hepatitis C or HIV.
- **pregnancy and breastfeeding:** Heroin can cause complications during pregnancy. This is because women who are dependent on heroin and other opioids often lack adequate

nutrition, rest and obstetrical care.

Heroin use increases the risk of miscarriage, stillborn delivery and premature delivery. Babies born to heroin-dependent mothers are more likely to have a low-birth weight and health problems. Babies can be born with heroin dependence and may suffer withdrawal. Heroin can also be transferred into a baby's system through breast milk.

Continuous regular use of heroin leads to physical and psychological dependence. When a physically dependent person stops using heroin, withdrawal symptoms begin a few hours later. The symptoms include:

- hot and cold sweats
- stomach cramps
- muscular spasms
- diarrhea
- irritability
- anxiety

Overdose can result from an excessive single dose taken by someone who is not a regular user. A long-term user may also overdose on an unexpectedly strong dose. This sometimes happens when a person uses the drug after a few days of not using heroin. If a regular user with high tolerance to the drug stops using heroin, they will lose their tolerance. Overdose can happen if that person tries to use the same amount as before they stopped. Their bodies can't adjust.

Is heroin legal?

Buying, selling and using heroin is illegal in Canada.

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

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.

