

Heroin

What are the street names/slang terms?

Big H, Blacktar, Brown sugar, Dope, Horse, Junk, Muc, Skag, Ace of Spades, Smac

What is Heroin?

Heroin is a highly addictive drug derived from morphine, which is obtained from the opium poppy. It is a “downer” or depressant that affects the brain’s pleasure systems and interferes with the brain’s ability to perceive pain.

What does it look like?

White to dark brown powder or tar-like substance.

How is it used?

Heroin can be used in a variety of ways, depending on user preference and the purity of the drug. Heroin can be injected into a vein (“mainlining”), injected into a muscle, smoked in a water pipe or standard pipe, mixed in a marijuana joint or regular cigarette, inhaled as smoke through a straw, known as “chasing the dragon,” snorted as powder via the nose.

What are its short-term effects?

The short-term effects of heroin abuse appear soon after a single dose and disappear in a few hours. After an injection of heroin, the user reports feeling a surge of euphoria (“rush”) accompanied by a warm flushing of the skin, a dry mouth, and heavy extremities. Following this initial euphoria, the user goes “on the nod,” an alternately wakeful and drowsy state. Mental functioning becomes clouded due to the depression of the central nervous system. Other effects included slowed and slurred speech, slow gait, constricted pupils, droopy eyelids, impaired night vision, vomiting, constipation.

What are its long-term effects?

Long-term effects of heroin appear after repeated use for some period of time. Chronic users may develop collapsed veins, infection of the heart lining and valves, abscesses, cellulites, and liver disease. Pulmonary complications, including various types of pneumonia, may result from the poor health condition of the abuser, as well as from heroin’s depressing effects on respiration. In addition to the effects of the drug itself, street heroin may have additives that do not really dissolve and result in clogging the blood vessels that lead to the lungs, liver, kidneys, or brain. This can cause infection or even death of small patches of cells in vital organs. With regular heroin use, tolerance develops. This means the abuser must use more heroin to achieve the same intensity or effect.

As higher doses are used over time, physical dependence and addiction develop. With physical dependence, the body has adapted to the presence of the drug and withdrawal symptoms may occur if use is reduced or stopped. Withdrawal, which in regular abusers may occur as early as a few hours after the last administration, produces drug craving, restlessness, muscle and bone pain, insomnia, diarrhea and vomiting, cold flashes with goose bumps (“cold turkey”), kicking movements (“kicking the habit”), and other symptoms. Major withdrawal symptoms peak between 48 and 72 hours after the last dose and subside after about a week. Sudden withdrawal by heavily dependent users who are in poor health can be fatal.

What is its federal classification?

Schedule I

Source: National Institute on Drug Abuse (NIDA); Drug Enforcement Administration (DEA)

The numbers

Drug overdose deaths in the United States have [risen steadily](#) since 1970. Painkillers actually kill more Americans than heroin and cocaine combined, according to the Centers for Disease Control, but heroin is still one of the No. 1 killers of illegal drug users. Only [one in 10](#) heroin overdoses ends in death.

Overdose deaths from heroin [have increased recently](#), and heroin use [is also on the rise](#). In 2011, 4.2 million Americans over the age of 11 had tried heroin at least once, according to the National Institute on Drug Abuse.

[An estimated 23%](#) of them will become addicts. And it's addicts who die more frequently than new users, studies show.

How heroin works

Heroin is most often mixed with water and injected. Injecting it minimizes the lag time between when the drug is taken and effects are felt -- with injection, the effects are almost immediate. It can also be smoked, snorted or eaten, but smoking or eating [destroys](#) some of the drug and mutes its effects.

When someone takes heroin there is an immediate rush. Then the body feels an extreme form of relaxation and a decreased sense of pain.

What's happening inside the body is the heroin is turning into morphine. Morphine has a chemical structure [similar to endorphins](#) -- the chemicals your brain makes when you feel stressed out or are in pain. Endorphins inhibit your neurons from firing, so they halt pain and create a good feeling.

Morphine, acting like your endorphins, binds to molecules in your brain called opioid receptors. When those receptors are blocked, that creates a high.

Why you die

Most people die from heroin overdoses when their bodies [forget to breathe](#). "Heroin makes someone calm and a little bit sleepy, but if you take too much then you can fall asleep, and when you are asleep your respiratory drive shuts down," said [Dr. Karen Drexler](#), director of the addiction psychiatry residency-training program and an associate professor in Emory University's psychiatry and behavioral sciences department. "Usually when you are sleeping, your body naturally remembers to breathe. In the case of a heroin overdose, you fall asleep and essentially your body forgets."

A heroin overdose can also cause your blood pressure to [dip significantly](#) and [cause](#) your heart to [fail](#). [Studies show](#) intravenous heroin users are 300 times more likely to die from infectious endocarditis, an infection of the surface of the heart.

Heroin use can also cause an arrhythmia -- a problem with the rate or rhythm of the heartbeat. During an [arrhythmia](#), the heart may not be able to pump enough blood to the body, and lack of blood flow affects your brain, heart and other organs.

[Heroin use](#) can also cause [pulmonary edema](#). That's when the heart can't pump blood to the body well. The blood can back up into your veins, taking that blood through your

lungs and to the left side of the heart.

As pressure in the blood vessels increases and fluid goes into the alveoli, the air spaces in the lungs, this reduces the normal flow of oxygen through your lungs, making it hard to breathe. This too can give you a heart attack or lead to kidney failure.

Heroin can also come with other toxic contaminants that can harm a user -- although deaths from such instances, while not unheard of, are thought to be rare.

Studies suggest instantaneous death: Such deaths, where a needle and syringe are still in place, would be considered instant by scientists. One study showed this accounts for only 14% of heroin-related deaths.

Heroin deaths increase when...

Most fatalities involve men, particularly those who have struggled with other drugs or alcohol and other drugs or alcohol are often present. While many are single, most users die in their homes and/or in the company of another person.

An addict does have a much higher chance of dying if he or she leaves treatment. The risk of death is higher for newly clean heroin addicts. A number of fatalities appear to happen after periods of reduced use, one 2000 study showed. In fact, long-term users who die from overdoses are likely to have heroin levels no higher than those who survive.

That may be in part because those who are newly clean don't know how much of the drug to give themselves any more, Drexler said. They won't need the same amount to get high as when they were using more regularly.

There are also some studies that show tolerance to the respiratory depressive effects of opiates increases at a slower rate than tolerance to the euphoric and analgesic effects. As your tolerance to the drug develops, you typically need more of it to produce the high you are used to getting. This may be why long-term users are potentially at greater risk of overdose than novices.

Statistics suggest that newer heroin users aren't the ones most likely to die. One study showed only 17% of the deaths studied were in new heroin users. However, Drexler said newer users can overdose because they don't know how much drug to take, compared to experienced users. "I think it is misleading to say you would not die if you only use it once or twice," she said.

A person's chances of dying from heroin use increase dramatically after 20 years of use. Studies show that after 30 years of use, 16% of heroin users have died, compared with 6.5% of cocaine users and 1.5% of meth users.

Source: http://www.cnn.com/2014/02/04/health/how-heroin-kills/index.html?hpt=hp_t1