

# HEROIN

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## WHAT IS HEROIN?

Heroin is an addictive drug derived from morphine obtained from the opium poppy. It is a narcotic that affects the brain's pleasure system and interferes with the brain's ability to perceive pain.

Heroin has many street names such as Big H, Blacktar, Brown sugar, Dope, Horse, Junk, Mud, Skag, or Smack. Most heroin is a powder varying in color from white to dark brown. The color range is due to the impurities left from the manufacturing process or the presence of additives. Pure heroin is a white powder with a bitter taste. Another form of heroin, known as "black tar," has also become increasingly available. Black tar heroin may be sticky like roofing tar or hard like coal, and its color may vary from dark brown to black. Black tar heroin is often sold on the street in its tar-like state.

Heroin is used in a variety of ways, depending on user preference and the purity of the drug. It is injected into a vein ("mainlining"), the muscle, or beneath the skin ("skin-popping"). It is also smoked in a pipe, mixed in a marijuana joint or regular cigarette, inhaled as smoke through a straw ("chasing the dragon"), or snorted as powder through the nose.

## WHAT ARE THE 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 an immediate 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 include slowed and slurred speech, slow gait, constricted pupils, droopy eyelids,

impaired night vision, vomiting, and constipation.

## CAN HEROIN CAUSE DEPENDENCE?

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. Withdrawal is a medical emergency and needs to be completed in a hospital or detox center. Sudden withdrawal by heavily dependent users who are in poor health can be fatal.

## WHAT ARE THE RISKS?

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, cellulitis, liver disease, and breathing complications. 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.

Heroin addiction exacts a terrible toll. For many addicts the condition lasts a lifetime. A lifetime shortened by health and social consequences of addiction. The National Institute on Drug Abuse,

(NIDA), supported researchers at the University of California, Los Angeles (UCLA), examined the patterns and consequences of heroin addiction over 33 years in nearly 600 heroin-addicted criminal offenders. They found that their lives were characterized by repeated cycles of drug abuse and abstinence, along with increased risk of crime or incarceration, health problems, and death. The death rate among those studied were from 50 to 100 times the general population rate of men in the same age range. The most common cause of death was accidental poisoning or drug overdose (21.6%), followed by homicide, suicide, or accident (19.5%). The next most common causes of death were liver disease, cancer, and cardiovascular disease.

## IS THERE TREATMENT FOR HEROIN DEPENDENCE?

The first step on the road to recovery is recognition of the problem, but often this process is complicated by a lack of understanding about addiction or denial. Interventions by concerned family or friends often prompts treatment. Withdrawal from heroin is a medical emergency and needs to be supervised professionally in a medical setting.

Alcohol, tobacco and other drug abuse affects many aspects of a person's life. For most, a combination of medication and intensive therapy is the most effective treatment approach.

Psychological and behavioral therapy can help addicted individuals modify their thinking, understand their behavior and motivations, develop higher self-esteem, and cope with difficult situations without resorting to drugs. Contingency management therapy uses a system where patients earn points or vouchers based on negative drug tests, which they can exchange for items that encourage healthy living.

Medications are used to control drug cravings and relieve severe symptoms

of withdrawal. The most widely used medications for heroin addiction are methadone and LAAM (leva-alpha-acetyl-methadol), a newer medication, developed as an alternative to methadone. Both medications reduce drug use, normalize brain and physiological functions disrupted by heroin addiction, reduce mortality and disease associated with drug abuse, and enable heroin-addicted patients to live productive lives. Some success has also been reported using auricular acupuncture and methadone together to reduce cravings and withdrawal symptoms.

Other treatment methods include hospitalization, residential and intensive outpatient, specialized treatment communities with highly controlled drug-free environments, outpatient drug abuse clinics, and self-help groups for alcohol, tobacco and other drug abusing individuals and their family members.

### HOW COMMON IS HEROIN ABUSE?

The 2000 National Household Survey showed an estimated 130,000 Americans were current heroin users. This is about one tenth of one percent (0.1%) of the total population surveyed age 12 and over. The study also showed that in 1999 there were an estimated 104,000 new users of heroin. Most of these new users were people under the age of 26. Of those new users half were age 18 to 25 and one-third were age 12 to 17.

Increased purity and low cost may be contributing to heroin use by young people. NIDA research indicates that young users are sniffing or snorting the drug because they wrongly believe that if they don't inject heroin they won't become addicted. However, the fact is that repeated use of heroin by any method induces physical and mental changes that trap the user in a downward spiral of addiction.

The good news is that the 2001 annual University of Michigan Monitoring the Future study showed that heroin use rates for 10th & 12th graders decreased by about half of one percent (0.5%) from 2000 to 2001.

### WHAT ARE THE RISKS OF HEROIN USE DURING PREGNANCY?

Heroin use during pregnancy may result in miscarriages, stillbirths, premature deliveries, and babies born physically dependent on the drug. All of those who inject heroin, including pregnant users, are introducing unsterile and foreign substances into their bloodstream, which can result in severe damage to the heart, lungs, and brain. In addition, sharing needles is one of the fastest ways of spreading diseases and is currently the leading cause of all new HIV and hepatitis B cases.

### LEGAL INFORMATION

Heroin is a Schedule I drug and a Controlled Substance under Michigan and Federal law. Use, possession, delivery, possession with intent to deliver, and manufacture of the drug is all illegal without an appropriate license or prescription. Penalties include imprisonment and fines. And certain penalties are mandatory. Penalties are increased if a person 18 years or older distributes the drug to a person under 18 who is at least three years younger than the distributor, or, distributes the drug to a minor who is a student on or near school property, or possesses the drug on or near school property. (M.C.L. 333.7410) For details on the legal penalties, refer to the Michigan Law Fact Sheet in this series.

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