

fact sheet: Heroin

What is heroin?

Heroin is an illegal opioid drug derived from morphine but several times more powerful. Appearing as a white or brownish powder, it is usually diluted with sugar, quinine or other more dangerous substances before it is sold on the street.

It affects the regions of the brain responsible for producing the pleasurable sensation of reward as well as physical dependence.

Heroin is often referred to by many common “street” names. Among these are “black tar,” “boy,” “brown,” “dope,” “dust,” “H,” “henry,” “horse,” “jones,” “junk,” “scag” and “smack.”

As a Matter of Fact...Heroin and Other Opiates. 1986. Jefferson City, Mo.: Missouri Department of Mental Health Division of Alcohol and Drug Abuse.

Cox, T.C., Jacobs, M.R., LeBlanc, A.E., Marshman, J.A. 1987. *Drugs and Drug Abuse: A Reference Text, Second Edition*. Revised by Jacobs, M.R., Fehr, K.O'B. Toronto: Addiction Research Foundation.

Inciardi, J.A. 1992. *The War on Drugs II*. Mountain View, Calif.: Mayfield Publishing Co.

Prevention Primer: An Encyclopedia of Alcohol, Tobacco and Other Drug Prevention Terms. 1994. Rockville, Md.: U.S. Department of Health and Human Services.

How is heroin ingested?

Heroin can be smoked, snorted or injected.

Many new users, afraid of needles, begin by snorting or smoking heroin. However, these methods of ingestion are as potentially addictive as injecting the drug. Because of the more rapid onset of the high, most regular heroin users inject the drug. Heroin is injected either under the skin or into the muscles (“skin-popping”) or directly into a vein (“mainlining”). Transmission of HIV, the virus that causes AIDS, is possible through both methods of injection.

Ashley, R. 1972. *Heroin, The Myths and Facts*. New York: St. Martin's Press.

Handbook of Drug Control in the United States. 1990. J.A. Inciardi, ed. New York: Greenwood Press.

Heroin Use, Addiction and Treatment. 1995. Based on lecture by Charles P. O'Brien, M.D., Ph.D. University of Pennsylvania. Sept. 13.

Inciardi, J.A. 1992. *The War on Drugs II*. Mountain View, Calif.: Mayfield Publishing Co.

Schoemer, K. 1996. “Rockers, models and the new allure of heroin.” *Newsweek*. Aug. 26.

Why do people use heroin?

People use heroin for a variety of reasons. Injection of the drug produces a variety of sensations described as “warmth...high and intense pleasure (‘rush’).” Furthermore, heroin’s effects are felt almost immediately —

within one minute when injected. The “intense euphoria” lasts 45 seconds to several minutes and is followed by up to an hour “on the nod,” where the user fluctuates between sedation and tranquility. It should be noted that heroin use also produces several unpleasant effects, such as restlessness, nausea and vomiting.

As a tranquilizing agent, heroin relieves feelings of worthlessness and despair. It has been suggested that heroin use is common among the inner-city poor because it helps them escape feelings of hopelessness.

Heroin’s emerging presence and apparent acceptance in popular culture, as well as the increasing purity of the drug (which allows users to snort or smoke heroin rather than inject it), have been blamed for increasing use of the drug. However, among heroin-related hospital emergency room episodes, “dependence” was the most frequently reported motive for using the drug.

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Preliminary Estimates from the Drug Abuse Warning Network: 1995 Preliminary Estimates of Drug-Related Emergency Room Episodes. 1996. Substance Abuse and Mental Health Services Administration Office of Applied Studies. Advanced report 17. August.

Schoemer, K. 1996. “Rockers, models and the new allure of heroin.” *Newsweek*. Aug. 26.

How common is heroin use?

Estimates of heroin use are considered very conservative because of the probable underrepresentation of the heroin-using population in prevalence surveys. (Many addicts live on the streets and are not part of the mainstream population.) However, an estimated two million people in the United States have used heroin at some time in their lives. Furthermore, 14 percent of all drug-related emergency room episodes were heroin related in 1996. From 1990 to 1996, the number of these episodes doubled — from 33,900 in 1990 to 70,500 in 1996.

Closer to home, approximately 1 percent of South Carolinians ages 18 and older have reported ever using heroin, and only 0.1 percent reported using it during the past year. Unfortunately, however, 2.3 percent of all South Carolina eighth-, 10th- and 12th-graders have reported using heroin at least once. Furthermore, 1.4

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percent of these students reported using heroin in the past 30 days.

1996 National Household Survey on Drug Abuse. 1997. Rockville, Md.: Substance Abuse and Mental Health Services Administration Office of Applied Studies.
Preliminary Estimates from the Drug Abuse Warning Network: 1996 Preliminary Estimates of Drug-Related Emergency Room Episodes. 1997. Rockville, Md.: Substance Abuse and Mental Health Services Administration Office of Applied Studies.
South Carolina Treatment Needs Assessment Household Survey. 1995. Columbia, S.C.: South Carolina Department of Alcohol and Other Drug Abuse Services.
Summary of Results of South Carolina Treatment Needs Assessment Study, School Survey: Grades 6-12. 1995. Columbia, S.C.: South Carolina Department of Alcohol and Other Drug Abuse Services.

Is heroin addictive?

Heroin is highly addictive. In the 1950s, the saying on the street was “It’s so good, don’t even try it once.” Unfortunately, today’s purity levels on the street are much higher than those in the past — making the drug even more addictive. Heroin affects portions of the brain responsible for producing both the pleasurable sensation of reward and physical dependence. Together, these actions cause the user to lose control and become an addict. Once the user becomes addicted, discontinuing the use of heroin is physically painful.

The Clinical Institute Narcotic Assessment scales list 10 withdrawal signs and three withdrawal symptoms associated with heroin addiction. Withdrawal signs include nausea, vomiting, gooseflesh, sweating, restlessness, tremors, lacrimation (secretion of excessive tears), nasal congestion, yawning and changes in heart rate and systolic blood pressure. Withdrawal symptoms include abdominal pain, muscle pain and feeling hot and cold.

Conservative estimates reveal that approximately one million people in the United States are currently addicted to heroin. The number of people who try heroin briefly but do not become regular users is unknown.

Ge, Y., Li, M., Sun, W.L., Cai, Z.J. 1994. “Clinical assessment of physical dependence potential of dihydroetorphine hydrochloride (abstract).” *Yao Hsueh Hsueh Pao — Acta Pharmaceutica Sinica.* 29(4).
Handbook of Drug Control in the United States. 1990. J.A. Inciardi, ed. New York: Greenwood Press.
Heroin. 1996. Rockville, Md.: National Clearinghouse for Alcohol and Drug Information.
Heroin Use, Addiction and Treatment. 1995. Based on lecture by Charles P. O’Brien, M.D., Ph.D. University of Pennsylvania. Sept. 13.

Why is heroin so addictive?

According to the *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV)* published by the American Psychiatric Association, the symptoms of addiction fall into three categories: (1) compulsion or loss of control — taking more than intended, unsuccessfully trying to stop and spending too much time under the influence or recovering from the drug’s effects; (2) tolerance — including withdrawal symptoms when drug use is discontinued; and (3) impairment —

using the drug despite adverse effects and preoccupation with the drug over everything else.

Heroin meets all three of these criteria. It mimics the endorphins or “natural highs” produced by the body during exercise, laughing, sex and other pleasurable activities. Unlike with natural endorphins, however, the body develops a tolerance to heroin so users require more of the drug to get the same effect. The need for the immediate high provided by heroin becomes the dominant interest in the addict’s life, destroying normal motivations and rewards.

Heroin and Other Opiates. 1995. Seattle, Wash.: Schick Shadel Hospital.
“Treatment of drug abuse and addiction (parts I, II and III).” 1995. *The Harvard Mental Health Letter.* August, September and October.

Do heroin addicts use the drug every day?

Heroin is a short-acting drug. Its effects last a maximum of four to six hours. To avoid withdrawal sickness, some addicts inject heroin up to four times per day. Because the drug’s effects are fleeting, addicts are constantly alternating between feeling high and feeling early withdrawal symptoms. When addicts are high, a portion of their days are spent “on the nod” or in a semi-stupefied state. When addicts are not high they are often physically uncomfortable and irritable. Therefore, they are seldom very productive.

Handbook of Drug Control in the United States. 1990. J.A. Inciardi, ed. New York: Greenwood Press.
Heroin Use, Addiction and Treatment. 1995. Based on lecture by Charles P. O’Brien, M.D., Ph.D. University of Pennsylvania. Sept. 13.

Does heroin have medicinal value?

No. The U.S. Drug Enforcement Administration has classified heroin as a Schedule I drug — the most strictly controlled category. This means heroin has a high potential for abuse, has no currently accepted medical use in the United States and has no safe level of use under medical supervision.

Inciardi, J.A. 1992. *The War on Drugs II.* Mountain View, Calif.: Mayfield Publishing Co.

Can heroin use cause medical problems?

Yes. Many serious medical problems are frequently associated with the use of heroin, particularly when it is injected. These include HIV/AIDS; hepatitis B; hepatitis C; cirrhosis and other chronic liver diseases; abscesses; skin, vein and muscle infections; endocarditis; stroke;

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gynecological and obstetrical problems; bone and joint infections; pneumonia; kidney failure; injury to the retina of the eyes; wheezing; constipation; weight loss; and overall impaired immunity to disease.

Intravenous heroin users also often experience problems associated with the various cutting agents that are injected along with the heroin, including lactose, quinine, cornstarch, cleansing powder and dirt.

Cox, T.C., Jacobs, M.R., LeBlanc, A.E., Marshman, J.A. 1987. *Drugs and Drug Abuse: A Reference Text, Second Edition*. Revised by Jacobs, M.R., Fehr, K.O'B. Toronto: Addiction Research Foundation.

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How great is the risk of heroin overdose?

Of all illegal drugs, heroin is responsible for the largest number of deaths. Between 3,000 and 4,000 heroin users fatally overdose each year in the United States. Furthermore, in 1996, there were 14,300 reported emergency room visits related to heroin overdose.

The risk of overdose is high among heroin users primarily because of varying levels of purity of the street drug. Therefore, users have no way of knowing whether their next dose will be fatal. Symptoms of heroin overdose include shallow breathing, pinpoint pupils, clammy skin, convulsions and coma. Death usually results from respiratory or cardiovascular complications.

Cox, T.C., Jacobs, M.R., LeBlanc, A.E., Marshman, J.A. 1987. *Drugs and Drug Abuse: A Reference Text, Second Edition*. Revised by Jacobs, M.R., Fehr, K.O'B. Toronto: Addiction Research Foundation.

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Preliminary Estimates from the Drug Abuse Warning Network: 1996 Preliminary Estimates of Drug-Related Emergency Room Episodes. 1997. Rockville, Md.: Substance Abuse and Mental Health Services Administration Office of Applied Studies.

Schoemer, K. 1996. "Rockers, models and the new allure of heroin." *Newsweek*. Aug. 26.

Is there a link between heroin and HIV?

Yes. Approximately half of all new HIV cases in the United States are linked to intravenous drug use. Because dirty needles and other drug paraphernalia provide a direct route for HIV into the user's bloodstream, infection rates in this population are high. In fact, in cities where injection drug use is highest, 27 percent of all intravenous drug users are HIV positive. One study found that the rate of HIV infection is six times lower among heroin users who enter treatment programs than among those who continue to inject drugs.

The AIDS virus is easily acquired through needle sharing. It is carried in contaminated blood left in the needle, syringe or other drug paraphernalia and is inject-

ed into other heroin users when they share the used equipment. The often already weak immune systems of heroin addicts may make it easier for them to acquire HIV and for the disease to progress rapidly to full-blown AIDS.

In addition to HIV/AIDS transmission through needles, heroin users often lead promiscuous lifestyles. Many addicts resort to prostitution — and are too intent on getting high to worry about "safe" sex — to support their habit. Therefore, heroin users are also at a higher risk of acquiring the virus through unsafe sexual practices.

Furthermore, HIV-positive heroin addicts who become pregnant risk infecting their babies at the prepartum, peripartum and postpartum stages.

Gossop, M., Powis, B., Griffiths, P., Strang, J. 1994. "Sexual behavior and its relationship to drug-taking among prostitutes in south London." *Addiction*. 89(8). August.

Inciardi, J.A. 1992. *The War on Drugs II*. Mountain View, Calif.: Mayfield Publishing Co.

Strang, J., Powis, B., Griffiths, P., Gossop, M. 1994. "Heterosexual vaginal and anal intercourse amongst London heroin and cocaine users." *International Journal of STD and AIDS*. 5(2).

Swan, N. 1995. Basic clinical research on AIDS: From the molecule to the patient. *NIDA Notes*, May/June. Rockville, Md.: National Institute on Drug Abuse.

Swan, N. 1997. CDC report highlights link between drug abuse and spread of HIV. *NIDA Notes*, March/April. Rockville, Md.: National Institute on Drug Abuse.

Vittala, K. 1996. "Lack of needle exchanges infected thousands with HIV." *The Journal. Addiction Research Foundation*. 25(4).

Do heroin users typically use other drugs?

Yes. Heroin is sometimes used in combination with amphetamines ("bombitas") or cocaine ("speedballs"). In recent years, heroin has been used in combination with crack because it mediates some of crack's unpleasant effects and prolongs the crack "high." Heroin users often also use cigarettes, marijuana and alcohol. In one study, 92 percent smoked cigarettes, while 86 percent used marijuana and alcohol. Many heroin overdose deaths are the result of heroin used concurrently with alcohol or another sedative.

Cox, T.C., Jacobs, M.R., LeBlanc, A.E., Marshman, J.A. 1987. *Drugs and Drug Abuse: A Reference Text, Second Edition*. Revised by Jacobs, M.R., Fehr, K.O'B. Toronto: Addiction Research Foundation.

Inciardi, J.A. 1992. *The War on Drugs II*. Mountain View, Calif.: Mayfield Publishing Co.

Schrager, L., Friedland, G., Feiner, C., Kahl, P. 1991. "Demographic characteristics, drug use and sexual behavior of IV drug users with AIDS in Bronx." *Public Health Reports*. 106.

How long can heroin use be detected by urine and/or blood tests?

Heroin use is detected through the presence of morphine, which the body converts heroin into shortly after ingestion. In people who try one dose of heroin once or twice, use can be detected for 24 to 36 hours —

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depending on the sensitivity of the test. It is difficult to determine how long heroin can be detected in addicts because individual doses and patterns of use are highly variable.

Telephone Interview. 1996. Columbia, S.C.: Department of Pharmacology, University of South Carolina School of Medicine.

How can you tell if someone is using heroin?

Physical symptoms of heroin use include sedation; drowsiness; poor motor coordination; fresh puncture marks or “tracks”; slow or slurred speech; facial itching and scratching; clammy skin; dry mouth; deepening of the voice; nausea; vomiting; gait ataxia (loss of muscular coordination in the feet); deep sleep; muscle spasms; respiratory depression; constricted pupils; reduced visual acuity; impairment of night vision; dizziness; reduced libido; increased urination; reduced appetite; weight loss; and constipation.

Behavioral symptoms of heroin use include mood changes; euphoria; inability to concentrate; apathy; mental confusion; giddiness; fearfulness; and anxiety.

In addition, many types of paraphernalia are associated with heroin use and might indicate that someone is using the drug. Heroin paraphernalia include syringes, needles, spoons and cotton balls.

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Inciardi, J.A. 1992. *The War on Drugs II*. Mountain View, Calif.: Mayfield Publishing Co.

Narcotics. 1996. College Park, Md.: Center for Substance Abuse Research.

Prevention Primer: An Encyclopedia of Alcohol, Tobacco and Other Drug Prevention Terms. 1994. Rockville, Md.: U.S. Department of Health and Human Services.

Can you get into trouble if someone you know is using heroin in your home?

Yes. In South Carolina, possession of heroin is illegal. To escape punishment, you will have to prove the drug is not yours. South Carolina law regarding the possession and distribution of drugs makes it illegal to have, make or intend to distribute any controlled substance, including heroin. Penalties vary depending on circumstances but may include a suspended driver's license for up to one year, fines of up to \$25,000 and up to 15 years imprisonment.

South Carolina Code of Laws. 44-53-370. 56-1-745.

Where can I get more information?

In South Carolina, the Department of Alcohol and Other Drug Abuse Services (DAODAS) operates a statewide toll-free telephone line that provides information and assistance on a variety of topics related to alcohol and other drug abuse. The number is **1-800-942-DIAL (3425)**. DAODAS also offers an online clearinghouse of alcohol and other drug information on the Internet at www.scprevents.org.

The county alcohol and drug abuse authorities and other public and private service providers offer local information and assistance as well.

Nationally, the National Institute on Drug Abuse operates a hotline. That number is **1-800-662-HELP**.



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South Carolina Department of Alcohol and Other Drug Abuse Services
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toll-free: 1-800-942-DIAL (3425)
www.daodas.state.sc.us

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