

Cocaine & Crack

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1.

An estimated 1.1 million Americans aged 12 or older used crack cocaine in 2008. Of those, 726 thousand were White, 256 thousand were Black, and 84 thousand were Hispanic.

Source:

Substance Abuse and Mental Health Services Administration. (2009). Results from the 2008 National Survey on Drug Use and Health: National Findings (Office of Applied Studies, NSDUH Series H-36, HHS Publication No. SMA 09-4434). Rockville, MD, table 1.34A at

<http://oas.samhsa.gov/NSDUH/2K8NSDUH/tabs/Sect1peTabs34to38.pdf>

2.

"Cocaine is a strong central nervous system stimulant that increases levels of dopamine, a brain chemical associated with pleasure and movement, in the brain's reward circuit. Certain brain cells, or neurons, use dopamine to communicate. Normally, dopamine is released by a neuron in response to a pleasurable signal (e.g., the smell of good food), and then recycled back into the cell that released it, shutting off the signal between neurons. Cocaine acts by preventing the dopamine from being recycled, causing excessive amounts of dopamine to build up, amplifying the message, and ultimately disrupting normal communication. It is this excess of dopamine that is responsible for cocaine's euphoric effects. With repeated use, cocaine can cause long-term changes in the brain's reward system and in other brain systems as well, which may eventually lead to addiction. With repeated use, tolerance to the cocaine high also often develops. Many cocaine abusers report that they seek but fail to achieve as much pleasure as they did from their first exposure. Some users will increase their dose in an attempt to intensify and prolong the euphoria, but this can also increase the risk of adverse psychological or physiological effects."

Source:

National Institute on Drug Abuse InfoFacts: Crack and Cocaine (Rockville, MD: US Department of Health and Human Services), from the web at <http://www.nida.nih.gov/infofacts/cocaine.html> last accessed August 25, 2008.

3.

"High doses of cocaine can cause euphoric excitement or schizophrenic-like symptoms. Psychologic and physical dependence can lead to profound addiction.

"Most cocaine users are episodic recreational users who voluntarily curtail their use. However, cocaine use and the development of addictive behavior in some users has increased in North America, although recent declines are recorded. Availability of highly biologically active forms, such as crack cocaine, has worsened the problem of cocaine dependence."

Source:

"Cocaine," The Merck Manual, Section 15. Psychiatric Disorders, Chapter 198. Drug Use and Dependence, Merck & Co. Inc., from the web at <http://www.merck.com/mmpe/sec15/ch198/ch198f.html> last accessed August 25, 2008.

4.

"Effects differ with different modes of use. When injected or smoked, cocaine produces hyperstimulation, alertness, euphoria, and feelings of competence and power. The excitation and high are similar to those produced by injecting amphetamine. These feelings are less intense and disruptive in users who snort cocaine powder.

"An overdose may produce tremors, seizures, and delirium. Death may result from MI, arrhythmias, and heart failure. Patients with extreme clinical toxicity may, on a genetic basis, have decreased (atypical) serum cholinesterase, an enzyme needed for clearance of cocaine. The concurrent use of cocaine and alcohol produces a condensation product, cocaethylene, which has stimulant properties and may contribute to toxicity."

Source:

"Cocaine," The Merck Manual, Section 15. Psychiatric Disorders, Chapter 198. Drug Use and Dependence, Merck & Co. Inc., from the web at <http://www.merck.com/mmpe/sec15/ch198/ch198f.html> last accessed August 25, 2008.

5.

"According to the 2007 Monitoring the Future survey—a national survey of 8th-, 10th-, and 12th-graders—cocaine use among students did not increase significantly, though it remained at unacceptably high levels: 3.1 percent of 8th-graders, 5.3 percent of 10th-graders, and 7.8 percent of 12th-graders have tried cocaine; 0.9 percent of 8th-graders, 1.3 percent of 10th-graders, and 2.0 percent of 12th-graders were current (past-month) cocaine users.

"According to the 2006 National Survey on Drug Use and Health, 35.3 million Americans aged 12 and older reported having used cocaine, and 8.5 million reported having used crack. An estimated 2.4 million Americans were current (past-month) users of cocaine; 702,000 were current users of crack. There were an estimated 977,000 new users of cocaine in 2006—most were 18 or older when they first used cocaine. Among young adults aged 18 to 25, the past-year use rate was 6.9 percent, showing

no significant difference from the previous year."

Source:

National Institute on Drug Abuse InfoFacts: Crack and Cocaine (Rockville, MD: US Department of Health and Human Services), from the web at <http://www.nida.nih.gov/infofacts/cocaine.html> last accessed August 25, 2008.

6.

"Because cocaine is a very short-acting drug, heavy users may inject it or smoke it q 10 to 15 min. This repetition produces toxic effects, such as tachycardia, hypertension, mydriasis, muscle twitching, sleeplessness, and extreme nervousness. Hallucinations, paranoid delusions, and aggressive behavior may develop, which can make the person dangerous. Pupils are maximally dilated, and the drug's sympathomimetic effect increases heart and respiration rates and BP.

"Severe toxic effects occur in the compulsive heavy user. Rarely, repeated snorting causes nasal septal perforation due to local ischemia. Repeatedly smoking volatile crack cocaine in high doses can have serious toxic cardiovascular and behavioral consequences."

Source:

"Cocaine," The Merck Manual, Section 15. Psychiatric Disorders, Chapter 198. Drug Use and Dependence, Merck & Co. Inc., from the web at <http://www.merck.com/mmpe/sec15/ch198/ch198f.html> last accessed August 25, 2008.

7.

"Although most cocaine in the US is snorted, smoking crack cocaine has become widely publicized. The hydrochloride salt is converted to a more volatile form, usually by adding NaHCO₃, water, and heat. The converted material is combusted and the resultant smoke inhaled. Onset of effect is quicker, and intensity of the high is magnified. Crack use has not expanded to the suburbs or to the urban middle class: Low-income Americans continue to be the primary users."

Source:

"Cocaine," The Merck Manual, Section 15. Psychiatric Disorders, Chapter 198. Drug Use and Dependence, Merck & Co. Inc., from the web at <http://www.merck.com/mmpe/sec15/ch198/ch198f.html> last accessed August 25, 2008.

8.

"Tolerance to cocaine occurs, and withdrawal from heavy use is characterized by somnolence, increased appetite, and depression. The tendency to continue taking the drug is strong after a period of withdrawal."

Source:

"Cocaine," The Merck Manual, Section 15. Psychiatric Disorders, Chapter 198. Drug Use and Dependence, Merck & Co. Inc., from the web at <http://www.merck.com/mmpe/sec15/ch198/ch198f.html> last accessed August 25, 2008.

9.

"When people consume cocaine and alcohol together, they compound the danger each drug poses and unknowingly perform a complex chemical experiment within their bodies. Researchers have found that the human liver combines cocaine and alcohol to produce a third substance, cocaethylene, which intensifies cocaine's euphoric effects. Cocaethylene is associated with a greater risk of sudden death than cocaine alone."

Source:

National Institute on Drug Abuse InfoFacts: Crack and Cocaine (Rockville, MD: US Department of Health and Human Services), from the web at <http://www.nida.nih.gov/infofacts/cocaine.html> last accessed August 25, 2008.

10.

"Treatment of acute cocaine intoxication is generally unnecessary because the drug is extremely short-acting. If an overdose requires intervention, IV barbiturates or diazepam may be used, but close observation and supportive care is the appropriate approach. Anticonvulsants do not prevent seizures due to cocaine overdose. Hyperthermia or significantly elevated BP, which rarely results, must be treated.

"Stopping sustained use requires considerable assistance, and the depression that may result requires close supervision and treatment. Many nonspecific therapies, including support and self-help groups and cocaine hotlines, exist. Extremely expensive inpatient therapy is available."

Source:

"Cocaine," The Merck Manual, Section 15. Psychiatric Disorders, Chapter 198. Drug Use and Dependence, Merck & Co. Inc., from the web at <http://www.merck.com/mmpe/sec15/ch198/ch198f.html> last accessed August 25, 2008.

11.

Research funded by the National Institute on Drug Abuse (NIDA) and the Albert Einstein Medical Center in Philadelphia states: "Although numerous animal experiments and some human data show potent effects of cocaine on the central nervous system, we were unable to detect any difference in Performance, Verbal or Full Scale IQ scores between cocaine-exposed and control children at age 4 years."

Source:

Hallam Hurt, MD, Malmud, Elsa, PhD, Betancourt, Laura, Braitman, Leonard E., PhD, Brodsky, Nancy L., PhD, and Giannetta, Joan, "Children with In Utero Cocaine Exposure Do Not Differ from Control Subjects on Intelligence Testing," Archives of Pediatrics & Adolescent Medicine, Vol. 151: 1237-1241 (American Medical Association, 1997).

12.

Well-controlled studies find minimal or no increased risk of Sudden Infant Death Syndrome (SIDS) among cocaine-exposed infants.

Source:

Bauchner, H., Zuckerman, B., McClain, M., Frank, D., Fried, L.E., & Kayne, H., "Risk of Sudden Infant Death Syndrome among Infants with In Utero Exposure to Cocaine," Journal of Pediatrics, 113: 831-834 (1988). (Note: Early studies reporting increased risk of SIDS did not control for socioeconomic characteristics and other unhealthy behaviors. See, e.g., Chasnoff, I.J., Hunt, C., & Kletter, R., et al., "Increased Risk of SIDS and Respiratory Pattern Abnormalities in Cocaine-Exposed Infants," Pediatric Research, 20: 425A (1986); Riley, J.G., Brodsky, N.L. & Porat, R., "Risk for SIDS in Infants with In Utero Cocaine Exposure: a Prospective Study," Pediatric Research, 23: 454A (1988)).

13.

Among the general population there has been no detectable increase in birth defects which may be associated with cocaine use during pregnancy.

Source:

Martin, M.L., Khoury, M.J., Cordero, J.F. & Waters, G.D., "Trends in Rates of Multiple Vascular Disruption Defects, Atlanta, 1968-1989: Is There Evidence of a Cocaine Teratogenic Epidemic?" Teratology, 45: 647-653 (1992).

14.

The lack of quality prenatal care is associated with undesirable effects often attributed to cocaine exposure: prematurity, low birth weight, and fetal or infant death.

Source:

Klein, L., & Goldenberg, R.L., "Prenatal Care and its Effect on Pre-Term Birth and Low Birth Weight," in Merkatz, I.R. & Thompson, J.E. (eds.), *New Perspectives on Prenatal Care* (New York, NY: Elsevier, 1990), pp. 511-513; MacGregor, S.N., Keith, L.G., Bachicha, J.A. & Chasnoff, I.J., "Cocaine Abuse during Pregnancy: Correlation between Prenatal Care and Perinatal Outcome," *Obstetrics and Gynecology*, 74: 882-885 (1989).

15.

In 2004, a kilogram of cocaine base in Colombia typically sold for \$810 and a kilogram of cocaine typically sold for \$1,713. In Peru in 2004, a kilogram of cocaine base typically sold for \$700 and a kilogram of cocaine typically sold for \$1,000. In Mexico in 2004, a kilogram of cocaine typically sold for \$7,880. In the United States in 2001, a kilogram of cocaine typically sold for \$23,500.

Source:

United Nations Office on Drugs and Crime, *World Drug Report 2006 Volume 2: Statistics* (Vienna, Austria: UNODC, 2006), pp. 369-370.

16.

According to the US Office of National Drug Control Policy, the cost of cocaine at the retail level declined from an average estimated \$544.59 per gram in 1981 to \$106.54 per gram in 2003. At the wholesale level, the drop went from \$201.18 per gram in 1981 to \$37.96 per gram in 2003. The purity of cocaine also went up during that time. At the retail level, it averaged 40% purity in 1981 and 70% purity in 2003, while at the wholesale level cocaine averaged 56% purity in 1981 and 63% purity in 2003.

Source:

Office of National Drug Control Policy, "The Price and Purity of Illicit Drugs: 1981 Through the Second Quarter of 2003" (Washington DC: Executive Office of the President, November 2004), Publication Number NCJ 207768, p. 58, Table 1 & p. 59, Table 2.

17.

"The data on total reduction of forest cover over Colombia and that on losses resulting from coca cultivation span different periods of time, so only rough comparisons of the two can be made. It is likely that several hundred thousand hectares of forest were cleared due to the direct and indirect effects of coca cultivation prior to 2000, before UNODC estimates from remote sensed data were available. Forest cover change in Colombia for the period 1990 2000 is estimated at 190,470 hectares per year. If this rate was assumed to have continued from 2000 to 2004, the total area deforested in those four years would have been 761,880 hectares, of which the 97,622 hectares of primary forest identified as converted to coca cultivations in this period would form 13%. As already noted, the actual of primary forest cleared due to coca cultivation is greater than the area being directly cultivated for this purpose, because of the other crops and activities of the farmers including the opening of roads and airstrips for transport of coca products."

Source:

United Nations Office on Drugs and Crime, "Coca Cultivation in the Andean Region: A Survey of Bolivia, Colombia and Peru" (Vienna, Austria: June 2006), pp. 24-25.

18.

"Damage to soils resulting from cultivation and elimination of the natural vegetation is widely reported in reference to the environmental impacts of illicit drug cultivation, as are the likely effects of the discharge of the chemical wastes from coca processing to soils and waterways. However, very little field assessment on the quantity of discharges and their effects on the environment (soils, fauna, flora or water) has been carried out by government agencies or universities. The only analysis found by this study was conducted in Chapare (Bolivia) in 1992 (Southwest Research Associates, 1993, quoted by Henkel, 1995). Here, a study of three cocaineprocessing laboratories found that pollution was concentrated in a small area at the processing site. Most chemicals were disposed of in holding ponds constructed for the purpose and were not dumped into nearby streams. Chemical spills at the site were quickly diluted by the high rainfall received in the region. Because coca processing sites are widely scattered in the Chapare, pollution is widely dispersed rather than concentrated at a few large sites. Some loss of soil microorganisms was noted, but no damage to wildlife, vegetation, fish species or bird life was detected near the processing laboratories. However, the study did not assess the long-term effects of pollution.

"For Colombia, DNE (2002) states that the agrochemicals used in coca processing are capable of polluting freshwater sources for human consumption, but no specific cases of this are given."

Source:

United Nations Office on Drugs and Crime, "Coca Cultivation in the Andean Region: A Survey of Bolivia, Colombia and Peru" (Vienna, Austria: June 2006), p. 31.

19.

"Critics note that the spraying has not prevented the tripling of the area under coca cultivation since Pastrana's inauguration, and that the spraying simply destroys the means of livelihood of subsistence farmers and displaces the crops deeper into the jungle. The coca producers have also adapted by developing new varieties of the coca plant, such as the Tingo Maria, which produces three times as much coca as the traditional varieties."

Source:

Rabasa, Angel & Peter Chalk, "Colombian Labyrinth: The Synergy of Drugs and Insurgency and Its Implications for Regional Instability" (Santa Monica, CA: RAND Corporation, 2001), p. 66, from the web at <http://www.rand.org/publications/MR/MR1339/> last accessed May 21, 2007.

20.

"From December 2000 to February 2001, US-backed antidrug drives resulted in the destruction of more than 29,000 hectares of coca fields (enough to produce 200-250 tons of cocaine annually)."

Source:

Rabasa, Angel & Peter Chalk, "Colombian Labyrinth: The Synergy of Drugs and Insurgency and Its Implications for Regional Instability" (Santa Monica, CA: RAND Corporation, 2001), p. 69, from the web at <http://www.rand.org/publications/MR/MR1339/> last accessed August 11, 2002.

21.

"Current projections call for 80,000 hectares to be sprayed (largely in Putumayo), which, if achieved, will bring the annual total to roughly 65 percent of the area currently thought to be under cultivation. Fifteen specially designed fumigation aircraft are due to be transferred to Colombia in 2001, augmenting the eight planes already in action."

Source:

Rabasa, Angel & Peter Chalk, "Colombian Labyrinth: The Synergy of Drugs and Insurgency and Its Implications for Regional Instability" (Santa Monica, CA: RAND Corporation, 2001), pp. 21-2, from the web at <http://www.rand.org/publications/MR/MR1339/> last accessed May 21, 2007.

22.

A case argued before the US Supreme Court *Ferguson, Crystal v. City of Charleston, et al.* involved the rights of mothers to seek medical care during pregnancy without fear of prosecution for a positive urine drug test. The Medill School of Journalism at Northwestern University reports that "because a live fetus was a 'person' under South Carolina law, a woman who used cocaine after the 24th week of pregnancy could be found guilty of the crime of distributing an illegal substance to a person under the age of 18."

Source:

Northwestern University, On The Docket Evanston, IL: Medill School of Journalism!, from the web at <http://www.medill.nwu.edu/docket/cases.srch?-database=docket&-layout=lasso&-response=2fdocket2fdetail.srch&-recID=32842&-search> last accessed Nov. 7, 2000.

23.

Black cocaine is created by a chemical process used by drug traffickers to evade detection by drug sniffing dogs and chemical tests. The traffickers add charcoal and other chemicals to cocaine, which transforms it into a black substance that has no smell and does not react when subjected to the usual chemical tests.

Source:

US General Accounting Office, Drug Control: Narcotics Threat from Colombia Continues to Grow (Washington, DC: USGPO, 1999), p. 5.

24.

The U.S. Penal Code violations for cocaine/crack cocaine and possible sentences:

Violation: "(ii) 5 kilograms or more of a mixture or substance containing a detectable amount of - (I) coca leaves, except coca leaves and extracts of coca leaves from which cocaine, ecgonine, and derivatives of ecgonine or their salts have been removed; (II) cocaine, its salts, optical and geometric isomers, and salts of isomers; (III) ecgonine, its derivatives, their salts, isomers, and salts of isomers; or (IV) any compound, mixture, or preparation which contains any quantity of any of the substances referred to in subclauses (I) through (III); (iii) 50 grams or more of a mixture or substance described in clause (ii) which contains cocaine base"

Sentence: Not "less than 10 years or more than life" "No person sentenced under this subparagraph shall be eligible for parole during the term of imprisonment imposed therein."

Violation: "(ii) 500 grams or more of a mixture or substance containing a detectable amount of - [same as above];" "(iii) 5 grams or more of a mixture or substance described in clause (ii) which contains cocaine base"

Sentence: Not "less than 5 years and not more than 40 years" "No person sentenced under this subparagraph shall be eligible for parole during the term of imprisonment imposed therein."

Source:

21 USC Part D - Offenses and Penalties 1/22/02 <http://www.usdoj.gov/dea/pubs/csa/841.htm#b>

25.

"In establishing the mandatory minimum penalties for cocaine, Congress differentiated between the two principal forms of cocaine – cocaine hydrochloride [hereinafter referred to as powder cocaine] and cocaine base [hereinafter referred to as crack cocaine] – and provided significantly higher punishment for crack cocaine offenses.⁹ As a result of the 1986 Act, federal law¹⁰ requires a five-year mandatory minimum penalty for a first-time trafficking offense involving five grams or more of crack cocaine, or 500 grams or more of powder cocaine, and a ten-year mandatory minimum penalty for a first-time trafficking offense involving 50 grams or more of crack cocaine, or 5,000 grams or more of powder cocaine. Because it takes 100 times more powder cocaine than crack cocaine to trigger the same mandatory minimum penalty, this penalty structure is commonly referred to as the '100-to-1 drug quantity ratio.'"

Source:

US Sentencing Commission, "Report to Congress: Cocaine and Federal Sentencing Policy," (Washington, DC: May 2007), pp. 2-3.

http://www.ussc.gov/r_Congress/Cocaine2007.pdf

Related Chapters:

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