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*Retraining and Updating on Currently Abused Drugs*

# Retraining and Updating on Currently Abused Drugs

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This distance learning coursework was developed for CEUMatrix by Dr. Robert Shearer.

This course is reviewed and updated on an annual basis to insure that the information is current, informative, and state-of-the-art. This package contains the complete set of course materials, along with the post test and evaluation that are required to obtain the certificate of completion for the course. You may submit your answers online to receive the fastest response and access to your online certificate of completion. To take advantage of this option, simply access the Student Center at <http://www.ceumatrix.com/studentcenter>; login as a Returning Customer by entering your email address, password, and click on 'Take Exam'. For your convenience, we have also enclosed an answer sheet that will allow you to submit your answers by mail or by fax.

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## About the Instructor:

Dr. Robert A. Shearer is a retired professor of Criminal Justice, Sam Houston State University. He received his Ph.D. in Counseling and Psychology from Texas A & M University, Commerce. Prior to teaching Criminal Justice, he taught Educational Psychology at Mississippi State University on campus and in the extension program across rural Mississippi during the civil rights era.

He has been teaching, training, consulting and conducting research in the fields of Criminal Justice, human behavior, and addictions for over thirty-six years. He is the author of over sixty professional and refereed articles in Criminal Justice and behavior. He is also the author of *Interviewing: Theories, techniques, and practices, 5th edition* published by Prentice Hall. Dr. Shearer has also created over a dozen measurement, research, and assessment instruments in Criminal Justice and addictions.

He has been a psychotherapist in private practice and served as a consultant to dozens of local, state, and national agencies. His interests continue to be substance abuse program assessment and evaluation. He has taught courses in interviewing, human behavior, substance abuse counseling, drugs-crime-social policy, assessment and treatment planning, and educational psychology. He has also taught several university level psychology courses in the Texas Department of Criminal Justice Institutional Division, led group therapy in prison, trained group therapists, and served as an expert witness in various courts of law.

He has been the president of the International Association of Addictions and Offender Counseling and the editor of the *Journal of Addictions and Offender Counseling* as well as a member of many Criminal Justice, criminology, and counseling professional organizations prior to retirement.

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The CEU Matrix – The Institute for Addiction and Criminal Justice Studies homepage ([www.ceumatrix.com](http://www.ceumatrix.com)) contains many pieces of information and valuable links to a variety of programs, news and research findings, and information about credentialing – both local and national. We update our site on a regular basis to keep you apprised of any changes or developments in the field of addiction counseling and credentialing. Be sure to visit our site regularly, and we do recommend that you bookmark the site for fast and easy return.





# Introduction and Course Rationale

Most addiction professional and substance abuse counselors have a wealth of information about drug abuse or specific drugs. Most of this information has been gained through personal experience, education and training, continuing education, or professional experience.

On the other hand, drug abuse varies from drug-to-drug, epidemic-to-epidemic, time-to-time, and from one geographical location to another. Drug use and abuse is a dynamic, complex, challenging, and sometimes lethal social phenomenon that makes it difficult for an addiction professional to capture the full picture of abuse drugs at any specific time or location.

Fortunately, the government conducts surveys and research across the country to determine the latest facts and figures for most abused drugs. This is a refresher course that condenses a series of widely dispersed government publications, concerning these facts and figures, into a booster session in order for addiction professionals to maintain current knowledge across the variety of the drugs being abused today.

The advantage of this refresher course is that it contains the latest information available. This information is straight forward and simple so that it is a snapshot of current drug reality. Finally, the facts and figures are not attached to any implications, abstract theories, or philosophical debates. It is up to the student to draw the possible conclusions and implications. Nevertheless, there are serious questions imbedded in the facts and figures. For example, it is interesting to speculate why the figures indicate Atlanta, Georgia is the city with the highest reported use of cocaine at the time of arrest. The facts and figures are not sterile and contain challenging relationships, trends, and societal demands.

The design of the course consists of a presentation of drug policy issues and then a presentation of the facts and figures for an array of ten important drugs being abused.

The facts and figures are divided among eight topics of inquiry. Hopefully, this design will provide a rewarding retraining and updating experience for the student on information about currently abused drugs.

## **Course Goals/Objectives**

There are two primary objectives for this course.

- The student is to learn the key drug policy issues, policy concepts, and policy options.
- The student is to learn the facts and figures for ten drugs being used and abused today.
  - a. Inhalants
  - b. Heroin
  - c. Hallucinogens
  - d. Marijuana
  - e. Methamphetamines
  - f. Prescription drugs
  - g. Steroids
  - h. Club drugs
  - i. Cocaine
  - j. Crack cocaine

These facts and figures include learning an overview, extent of use, health effects, treatment, arrests and sentencing, production and trafficking, legislation, and street terms.

## **Course Summary**

This is an information booster and refresher course for addiction professionals. It provides current information on the issues, facts, and figures for ten drugs being used and abused today. Each of the drugs is addressed according to the following topics: Overview, extent of use, health effects, treatment, arrests and sentencing, production and trafficking, legislation, and street terms. The course pulls together the latest information published on these topics.

## **Issues**

### **Background**

For more than 30 years, the United States has experienced a succession of drug crises. Beginning with the heroin epidemic of the 1960's and continuing through the cocaine and devastating crack epidemics of the 1980's, drug crises have regularly taken center stage in American politics and crime control policy. During the 1980's, deepening public anxiety about drug problems led to drug control choices that have taken a deep hold on the legal and social landscape of nearly every segment of American society. From drug testing in the workplace to incarceration in the Nation's overcrowded prisons, the United States has embarked on unprecedented social experiments to control the use of drugs.

The central doctrine in U.S. drug policy throughout these crises has been “legalism” (Zimring and Hawkins, 1992). In this doctrine, drug use challenges the established social order and the moral foundations of authority. Drug policies have emphasized criminal penalties and deterrence as mechanisms to control drug problems, with prevention and treatment receiving a lower priority and far less funding. The increased use of criminal justice resources was designed to achieve three interrelated aims: reduce drug demand by deterring would-be users, reduce drug supply by disrupting street-level markets, and reduce street violence that is the by-product of illegal drug use. The policy responses required low incarceration thresholds for violations of drug laws and a high likelihood of arrest for drug use and sales through extensive street-level enforcement. To accomplish this, resources were diverted from prevention and treatment toward enforcement and incarceration. These policy choices have been made in an atmosphere of intense concern but often without careful conceptual development or policy analysis. Perhaps most importantly, we have yet to measure the consequences and returns from the policy choices we have made. Today, an opportunity exists for such evaluation and rethinking of these policy choices. Like the epidemics that preceded it, the crack epidemic has run its natural course. The crisis that accompanied the onset and peak of the crack epidemic has subsided even though significant drug problems remain. There is now empirical information and rational perspective on many policy initiatives undertaken during the mobilization of the past decade and also from lessons to be learned from earlier drug crises. This allows us to highlight those policies with promise and those whose limits were quickly reached. It also provides a context in which to formulate a coherent drug policy framework where specific initiatives make sense and where policies can synergistically achieve meaningful reductions in drug problems.

### **Challenges to Drug Policy:**

#### **What Not To Do**

We frame these policy choices in the context of several challenges that have emerged from the drug control experiments of the past decade. The challenges reflect the lessons learned from the realities of drug problems and the experiences of implementing large scale mobilization of legal and social resources. First, the experiment of mass incarceration over the past decade suggests the limits of deterrence-based strategies for controlling large-scale drug problems. The sharp increases in incarceration rates have resulted in limited success in reducing the use or availability of drugs (see, for detailed analyses, Kleiman, 1992; Zimring and Hawkins, 1992; Moore, 1993; Reuter, 1991). The use of precious criminal justice resources has not brought returns from either market disruption or demand reduction. The lesson of the past decade lies in recognizing the limits of legal institutions and criminal justice systems in dealing with drug use. Epidemics such as the recent cocaine, crack, and heroin epidemics suggest that societal drug problems occur on a scale that exceeds the limited capacity of the criminal justice system. To mobilize legal institutions on a

scale that would match these drug crises is not practical in a complex society with multiple policy demands and declining economic resources. It also raises problems for the consensus on law and the importance of fairness (Moore, 1993; Tonry, 1995). A more realistic strategy would recognize that effective drug control requires reciprocity between criminal justice and other interventions, including public health or drug treatment. Second, recurrent drug problems place extraordinary burdens on police, courts, and communities. During the 1980's, police efforts were targeted toward mass arrests that created organizational burdens to sustain them. Police corruption from drug enforcement became a recurring management problem that threatened morale and public confidence in the police. The quality of justice in the courts was compromised by the crush of caseloads and the pressures to move calendars (Wisotsky, 1990; Belenko, 1993). Prisons suffered in two ways: overcrowding and the emergence of a new generation of inmates that posed challenges for prison management and security. Although communities demanded increased enforcement to rid themselves of drug dealers, many residents resented what they perceived as the aggressive enforcement of unfair laws that were disproportionately targeted toward minority citizens. These policies served to increase disrespect for and resistance to the law among many citizens (Reuter, 1991). Judges resisted mandatory sentencing statutes that stripped them of their discretion in sentencing, further undermining the public's confidence in the same laws that drug policy was trying to reinforce. Third, drug policy is further challenged by its interdependency with health, crime control, and other social policies. Drug policy often has a push-down-pop-up effect: the more we put pressure in one place, the more likely we are to experience new problems in another. Thus, for example, as we continue to limit severely the distribution of clean syringes, we increase the health risks of HIV transmission among intravenous heroin and cocaine users. Or criminal sanctions for low-level crack dealers focus resources away from treatment of crack and cocaine users whose behaviors provide vectors for HIV transmission through high-risk sexual activity. Or successful interdiction of marijuana imports encourages domestic growers to develop higher potency crops that pose significantly greater health threats (Kleiman, 1992).<sup>4</sup> In contrast, the relatively low-scale efforts to treat drug users in the criminal justice system exposes untreated defendants to the risks of family disruption, poor health outcomes, exposure to violence in illegal drug markets, and other social deficits. For example, one of the important policy lessons of the past decade is that incarceration of adolescents relegates them to a lifetime of poor job outcomes and persistent involvement in criminality (Freeman, 1992), yet the expansion of drug enforcement resulted in an increase in the number of young people incarcerated and spiraling problems of crime and unemployment. Fourth, drug policy debates have been competitions between supply-side hawks and demand-reduction doves. The hawks focus on reducing the availability of illegal drugs on the street through interventions up and down the distribution system. Their arguments are buttressed by inconsistent evidence of treatment effectiveness, the immediacy of drug problems, and the incapacitating effects of incarceration.

Theirs is an urgent and simple message, in contrast to the social logic of the doves: deterrence does not work; prevention and treatment have been underfunded; and drug problems are social in their origins and require social solutions. The debate has turned—and stalled—on the question of the extent of drug use and drug problems (Reuter, 1991). This reflects the legalism doctrine that informs much of drug policy, where drug use (and not its consequences) is the concern of policymakers. However, legalistic policies have not succeeded in reducing either drug use or drug problems. When the policy focus shifts to the societal burdens and consequences of drug use, as it has in European countries, other policy frameworks become possible. Specifically, alternative policy frameworks are needed that recognize the possibly adverse effects of legalistic drug policy and that focus on reducing the risk of drug harm rather than the prevalence of drug use. Policies that consider risk shifting (from legal to social domains, from supply side to demand side) and comparative-risk-and-advantage analysis afford the greatest potential for more than symbolic gains in efforts to control drug use. In sum, the lessons from three decades of legalistic drug policies suggest deterrence strategies have not been successful in reducing drug use. In fact, their adverse effects have intensified certain health and social risks of drug use. There is little evidence of either general or specific deterrent effects (Fagan, 1994; Zimring and Hawkins, 1992; Reuter, 1991). Enforcement strategies have consumed resources, aggravated the health risks associated with drugs, and increased the levels of violence surrounding drug markets. Drug policy through the 1980's also has resulted in increased profits for drug sellers, which have attracted other young people into selling as the exaggerated symbols of conspicuous consumption by dealers act as a siren's song for younger people (Fagan, 1992). The application of severe sentencing laws with a broad and non-discriminating reach have undermined rather than reinforced the moral authority of the law among many citizens and judges. In the next section, we apply these lessons to form drug policies that assign a strategic and complementary role for criminal law and for the Nation's legal institutions.

### **Policy Concepts**

The lessons of the past decade and the legacies of policies formed in preceding decades suggest principles for informed policy for the future. The burden on the criminal justice system created by reliance on criminal sanctions for drug offenses, together with the general consensus among criminal justice policymakers and practitioners that this policy has not accomplished its goals, suggest that new approaches must be considered and encouraged. First, we encourage policies that focus on reducing the risks and harmful consequences of drug use with an emphasis on demand-side policies to shrink illegal drug markets. Policies should pursue realistic and attainable goals for reducing the harms that accrue from drug use. Criminal penalties should be part of a broader policy framework that recognizes the scale of drug problems. This policy approach does not necessarily mean that enforcement efforts should be ignored or downplayed. Instead, a bifurcated drug policy is needed that distinguishes

among offenders in terms of their drug involvement. Enforcement and prosecution should be used to disrupt middle- and upper-level trafficking, while treatment or alternative sentencing interventions should be used to reduce drug demand among low-level dealers with drug problems. Diversion and referrals should focus on reduction of drug use among offenders whose underlying drug problems have impelled their entry into the criminal justice system. Second, the inclusion of public health and other social policies will expand the forms of social control that can reinforce the goals of criminal justice interventions. There is an important role for criminal penalties, but the challenge is to use criminal penalties strategically and reciprocally with other interventions. Drug offenders are at high risk for infectious disease, so effective referral and intervention also becomes a public health issue. The high prevalence of HIV infection, tuberculosis, sexually transmitted diseases, and hepatitis among criminal offenders increases the urgency of fostering new policies that allow broader public health interventions at all stages of criminal justice processing. Two other key parts of the policy equation are education and prevention programs and increased economic opportunities, especially in poor urban areas. One policy implication of this approach is that we need to greatly improve current collaborations between criminal justice and alcohol and other drug (AOD) treatment systems. This includes both increased opportunities for collaboration as well as making such interactions more effective and meaningful. We recognize that important steps in this direction have already been taken, as illustrated by the recent development of treatment diversion drug courts. However, the number of drug-involved offenders entering drug courts is a very small proportion of those in need of AOD treatment. There is a growing need, already recognized by the U.S. Department of Justice and the U.S. Department of Health and Human Services, to seek collaborative efforts, multidisciplinary approaches, and meaningful community involvement to address long-term problems of crime and substance abuse with more effective solutions. This will require a shift in the allocation of criminal justice system resources away from harmful or counterproductive policies, such as the imprisonment of nonviolent drug abusers or low-level drug sellers, toward strategies with greater effectiveness and long-term impact on drug abuse. It will be necessary to implement sometimes politically sensitive shifts in resources in favor of such interventions as AOD treatment programs, diversion, and alternatives to incarceration and away from law enforcement, prison, and jail for drug-involved nonviolent offenders. Experience has shown that there is consistent, broad public support for AOD treatment for these types of offenders as well as strong support in the law enforcement and judicial communities. The cornerstone of a new drug policy that can more effectively break the drug-crime cycle is the increase in AOD treatment opportunities at all stages of the criminal justice system. Although some offenders can reduce or eliminate their drug use without treatment, most need some sort of external pressure to enter and remain in treatment. We know that sanctions in and of themselves will not reduce drug-related crime, nor will punitive sanctions deter drug sales or drug use. It is a basic principle of human behavior that punishment by itself will not change

behavior; opportunities and rewards for competing prosocial behaviors must be offered. Treatment drug courts recognize this principle, and this may account for their apparent success in channeling offenders into treatment. Finally, a realistic, effective, and balanced approach should not be hampered by inflexible and punitive laws that limit the ability of prosecutors and judges to allow treatment interventions. Accordingly, we recommend against mandatory minimum sentences for nonviolent drug-involved offenders with a concomitant increase in prosecutorial and judicial discretion.

## **Policy Options**

### **Demand Reduction Strategies**

Since 1980, drug laws have been used as the primary mechanism for demand reduction among drug users. Moral injunction and deterrence inform this perspective. However, the inelasticity of demand in the face of mass incarceration of drug offenders suggests that alternative methods of demand reduction be considered. One of the reasons for recommending a policy emphasis on demand reduction is the growing evidence that the marginal (formal) deterrence effects of criminal penalties are small. Instead, we recommend strategies that focus on the (informal) mechanisms by which individuals reduce their drug use.

### **Move ahead with experiments on drug courts.**

Continued experimentation with treatment-oriented drug courts should be encouraged. These courts arose out of local, grassroots frustration with the inability of prevailing punitive anti-drug policies to reduce drug-related crime. They are also part of important trends in the criminal courts: the shifting roles of court participants; a changing view of offenders as individuals requiring individual attention rather than simply as criminal cases; a multidisciplinary, case-management approach to responding to offenders; and increased community involvement and sensitivity toward community concerns in the court process. The drug courts reflect a broader, longer range approach to drug-related crime, emphasizing the solution of underlying problems rather than just the repeated punishment of criminal acts. They represent a potentially powerful model for linking the treatment and public health systems to the criminal justice process, and continued development and evaluation of their long-term effectiveness should be strongly encouraged by the Federal Government. One potential downside to treatment drug courts and other diversion or alternative sentencing programs is the risk of unnecessarily widening the net of social control. Like any intervention strategy, the focus should be on those individuals who will be most responsive to interventions. This risk can be minimized through appropriate eligibility and screening criteria along with comprehensive and clinically based assessment for underlying drug problems and jail-boundness.

**Minimize harm: Improve linkages with drug treatment and public health and make treatment the first resort.**

Access to AOD treatment and public health services should be encouraged at all stages of the criminal justice process. Accordingly, opportunities for effective treatment interventions during the pretrial period, probation-supervised treatment, treatment under a community corrections model, and prison- or jail-based treatment should be studied and encouraged. Finally, all criminal-justice-based treatment services should consider the provision of aftercare services to provide a continuum of treatment and other services following release from jail or prison after criminal justice supervision has ended.

**Capitalize on communities.**

There are strong conceptual and practical reasons to invest in communities as a form of drug control, and growing evidence that communities can effectively mobilize to disrupt drug markets and deter drug users (Currie, 1993).

Community policing has received much attention and support in recent years, and the police-community relationship is a critical issue in drug policy. There are many case studies that illustrate the benefits of community policing with respect to reducing the size and scope of drug markets, but few systematic studies.

Although evidence of its effect on reducing the demand for drugs and its impact on the criminal justice system is still not available, this approach seems to be more likely to support the linkage of treatment and public health services to law enforcement than traditional anti-drug enforcement approaches that rely on undercover narcotics officers to disrupt street drug markets.

**Get serious about prevention.**

More research is needed about how to make prevention and education effective. Prevention should be disaggregated for specific drugs and specific populations. Prevention strategies should be built from our understanding of the mechanisms through which individuals acquire information about drugs and make decisions about their use. Scary messages about the harms of drugs from non-credible sources are not effective for a heterogeneous population of current and would-be drug users. Instead, the lessons of drug epidemics since the 1960's are that: (1) information about the dangers and rules of drug use are spread informally from credible sources, (2) the dangers of drug use are learned from direct or indirect but social (not legal) experiences, and (3) normative changes in drug use patterns are influenced weakly by legal threats. Prevention experiments are sorely needed, as is the political "time" to see these experiments through to their conclusion. These should be disaggregated by age, social location, and type of drug.

**Expand drug treatment in prisons.**

The concentration of high-rate and high-risk drug use among a small segment of the population suggests that concentrated treatment efforts should be targeted at this population. Many high-rate, high-risk drug users are in prison, and their

criminality is closely (and perhaps causally) linked to drug problems. The cost arguments alone make treatment a necessary part of an overall strategy for drug control, but opportunities to reduce criminality together with drug problems makes in-prison treatment a strong candidate for funding. There is limited but growing evidence of potential gains from this approach. Serious experimentation and research are needed to build a social technology that relies on the “push” of criminal sanctions to make gains in treatment.

### **Fund alternatives to incarceration.**

Several governors and State legislatures, most notably New York and Florida, have started to rethink the policy of mandatory minimums for nonviolent drug offenders. Citing the need to alleviate overcrowding and prioritize prison space for violent offenders, they have recommended that penal code statutes permit the sentencing of nonviolent drug offenders to non-incarcerative punishments. However, judges are likely to resist non-incarcerative sentences when the alternatives are weak. That is the case as fiscal limits negate the expansion of alternatives to incarceration (ATI) beyond their current small scale. These vary widely and can meet the supervision and treatment needs of a wide range of drug offenders. Any serious effort to avoid the adverse (expensive) consequences of incarceration will need a network of viable alternative sentencing options. One way to achieve the shifting of funds to ATI programs is to provide incentives for local government to create and fill these programs. Subsidy programs, created decades ago as mechanisms to avoid “dumping” of offenders by local governments into State facilities, were successful in a number of jurisdictions that were intent on reducing their prison populations. States typically set a maximum for each county and awarded funds from a community corrections pool to localities on a prorated basis for the number of prison remands below the maximum. The subsidies often were used to establish community corrections programs or to enhance probation services. The same logic can be applied in the current context to support intensive supervision programs involving urinalysis, outpatient or residential drug treatment, and programs that address health or employment concerns. If the excessive use of incarceration for drug offenders is to be discontinued, incentives must be created to sustain the efforts of States to create and utilize alternatives to incarceration.

### **Reduce the harms from drug use.**

The focus on deterrence of drug use has left untouched spreading health harms caused by illegal drug use. Drug addiction is a chronic disease, albeit neither an infectious nor a contagious one. It should be treated from the perspective of chronic disease, helping us to achieve a set of realistic and attainable policy goals that focus on isolating causal dynamics and risk factors and to develop appropriate interventions. There is little evidence that drug addiction can be deterred through the threat of legal sanctions, and policies that make punishment the first resort set unrealistic and unachievable goals. An approach rooted in the reduction of the harms and public health risks of drug use will place legal

institutions in a role where they are no longer burdened with unachievable missions. Thus containment of the harms of drug use, while strategically intervening on problematic drug use, is the essence of a harm-reduction model that can become a framework for policy. Several communities with extensive heroin abuse problems have experimented successfully with needle exchanges to control the spread of HIV infection. Using careful criteria based on need, policies encouraging needle exchange help address the harms of drug use while providing opportunities to control use itself through referrals. Similarly, encouraging women users to seek medical care while pregnant (instead of threatening them with incarceration) will identify soon-to-be newborns at risk for low birth weight and other birth defects. These children, who grow up at risk for delinquency and violence, also are at risk for in utero addiction and addiction at birth. There are myriad other forms of harm that can be addressed by the selective application of criminal “pressure.” Examples include the diversion of users into treatment to encourage their eventual return to their families and employment to encourage users to pursue lower-risk forms of drug use that minimize health and social harms.

### **Supply reduction strategies.**

Drug laws also have been used to reduce the supply of illegal drugs to consumers, to increase their street price, and to limit their availability to the average consumer. Supply-side policies have been implemented at all levels of the distribution chain, from production in foreign countries through importation and distribution systems involving wholesalers and street retailers. Supply-side policy assumes that both prices and demand for illegal drugs are elastic. The set of strategies that make up supply-side policy attempts to achieve marginal reductions in the price and availability of drugs, and the effects of these efforts, are enough to discourage at least some drug use. The record from these efforts has been decidedly mixed. There have been successes either in reducing availability or increasing prices, but these gains have been short-lived. The reductions were temporary or small. For example, the number of heroin addicts in the United States has remained steady at about 250,000 people for nearly two decades after peaking at 500,000 people in the early 1970's. Drug epidemics come and go. There is little reliable evidence about street prices or the amount of drugs consumed to allow us to attribute drug-market behaviors to supply-side policies, but we should question the effectiveness of supply-side policies if drug consumption does not decline following their implementation (Moore, 1993). However, supply-side policy must continue to be part of drug policy. There are several policy questions to be addressed in determining how best to use policy options on this side. First is the decision about where on the supply chain market disruption tactics should be focused. If demand is inelastic relative to price, there can be little justification for supply-side policies, but this is a narrow view in many regards. While inelasticity claims may be true for addicts, they may not be true for irregular consumers whose market behavior is more rationally oriented. Inelasticity also suggests that there are purely econometric effects on prices and,

therefore, on consumer behavior. It is more likely that supply-side interventions will influence other dimensions of consumer behaviors and decisions, such as risk assessment and search time. We attend to these possibilities by suggesting the wise use of police resources to change market dynamics (apart from prices).

### **Where to intervene.**

Until recently, there was little differentiation in supply reduction policies regarding point of distribution. There is a complex and flexible distribution system for drugs that involves producers, transporters, importers, wholesalers, and local distribution networks. However, current efforts to interdict imports are indistinguishable in their priority from efforts to increase arrests of low-level drug dealers. This makes no sense, and priorities must be set.

Policies targeted toward producers outside the United States are high-cost, low-payoff ideas. The production of drugs is a political, economic phenomenon that is not easily amenable to intervention. Like domestic supply-side interventions, there are questions of scale that are not easily addressed through periodic crop destruction or disruption of remote processing facilities.<sup>8</sup> In this country, supply reduction tends to drive street prices slightly up. Because heroin and cocaine demand seems to be somewhat inelastic, supply reduction will cause an increase in street crimes (necessary to sustain drug consumption) and an increase in dealer revenues. A more lucrative market will continue to expand as newcomers are attracted to what appears to be a profitable market. Accordingly, policies that involve international interventions should receive a low priority.

Similarly, efforts to locate and convict various “Mr. Bigs” in cities throughout the United States have high costs relative to payoffs. Drug indicators suggest the intractability of imports and domestic supplies to such domestic interdictions, despite widely spaced, highly publicized seizures. So-called “kingpins” (and, increasingly, “queenpins”) are quickly replaced by individuals within their own organizations if not by competitors. Nevertheless, there is an important symbolic value in efforts to interdict supplies overseas, at the borders, and at the upper levels of the distribution chain. These efforts reinforce the illegality of drug use, express intolerance for drug dealing, and reassure a public still anxious about drugs that efforts continue to disrupt supply systems. *The priority assigned to international interventions and interdictions at the upper levels of the domestic distribution system should be low relative to point-of-sale efforts to reduce supplies available to users.* The principle driving the decision about where to focus supply-side policies should address the simultaneity of supply and demand factors. While interdictions tend to increase prices for a short period of time, demand remains constant even when prices fluctuate (Warner, 1993). Demand is inelastic with respect to price, but not with respect to other factors that we might call the “buying context.” We suggest instead that supply-side interventions focus on consumer markets and market interactions. This does not mean that we encourage street-level crackdowns aimed at jailing drug retailers. Crackdowns involving mass arrest have time-limited effects on drug selling (Vera Institute,

1992; Tonry, 1995). They simply shift buyers and sellers from neighborhood to neighborhood and clog the courts and compromise the quality of justice for both prosecution and defense. Often, crackdowns may simply drive markets indoors, out of the public eye, but with little lasting effect on consumer behavior. *Supply-side strategies should focus on interactions between buyers and sellers, making drug purchases more difficult by increasing search time for buyers and decreasing revenues for sellers.* We suggest that supply-side strategies focus on disrupting local markets, ensuring that they do not become institutionalized so that customers can regard them as a consumer convenience. When drugs are part of the marketplace where consumer interactions take place, the markets enjoy the ordinary economic protections of consumer behavior. Demand is constant and encourages a supply chain. But when markets are disrupted and unstable, consumers must endure a variety of inconveniences that increase the intangible costs of drugs. Strategies that encourage local market disruption should focus less on criminal enforcement than on using police to establish obstacles to consumers wishing to make purchases. This requires a detailed knowledge of the features of drug markets that encourage or discourage buying and which of these features can be modified to reduce harmful consequences if not actual use. This strategy is highly localized, with immediate payoffs focused on supplier-consumer interactions.

### **Who should intervene?**

The second question concerns the allocation between Federal and local policing in carrying out supply-side drug controls. The key issues involve the allocation of responsibility for setting policy, paying for it, and carrying it out. These decisions also occur in the context of political concerns about the extent of government in local crime control policy and about how to effectively spend a shrinking supply of Federal dollars. Large-scale Federal block grant programs have short lives and ultimately few lasting effects on policy, programs, or the problems they are intended to resolve. Their impacts are diffuse and uneven. One of their primary failings is that they do not create cumulative knowledge that can lead to informed and well-evaluated policies or strategies. However, the creation of a policy infrastructure with carefully defined missions can influence policy in a lasting way (Zimring and Hawkins, 1992). Despite the current talk about block grants to diversify and localize funding decisions, history is clear that block grants come and go, and they have had shorter and shorter half-lives since the 1960's. The lessons of the Law Enforcement Assistance Administration teach us much about the limits of block grants, whether to States or localities. *The responsibility for enforcement and funding of drug policy should be shifted downward to the States. The development of knowledge, technology, data, and information should be organized within a policy infrastructure at the Federal level.*

Laws are enforced locally, drug users are treated locally, and health problems are addressed locally. There is diversity in the nature of drug problems within and across States. This suggests a shifting of responsibility downward together with funding. What then should the Federal Government do? The Government should

conduct test marketing of ideas and strategies through experimentation, disseminate systematic knowledge, coordinate technology, and ensure that information is standardized, accurate, and up-to-date. From this foundation of knowledge, effective policies can be fashioned.

## Source of Course Information

Most of the information in this course has been taken from a series of publications produced by *THE OFFICE OF NATIONAL DRUG CONTROL POLICY* in late 2009, *CRITICAL CRIMINAL JUSTICE ISSUES: TASK FORCE REPORT FROM THE AMERICAN SOCIETY OF CRIMINOLOGY*. National Institute of Justice, 1994, "Drug Policy Issues: Lessons from Three Epidemics," and *DRUGS AND CRIME FACTS*, U.S. Department of Justice, Washington, D.C., 2005.

# Inhalants Facts & Figures

## Overview

Inhalants are volatile substances that produce chemical vapors that can be inhaled to induce a psychoactive, or mind-altering, effect. Inhalants include a broad range of chemicals found in hundreds of different products that may have different pharmacological effects. There are four general categories of inhalants:

- Volatile solvents are liquids that vaporize at room temperature and are found in products such as paint thinners/removers, dry-cleaning fluids, gasoline, correction fluids, and felt-tip marker fluids.
- Aerosols are sprays that contain propellants and solvents and include spray paints, deodorant and hair sprays, vegetable oil sprays for cooking, and fabric protector sprays.
- Gases used as inhalants include medical anesthetics (ether, chloroform, and nitrous oxide) as well as gases used in household or commercial products (butane lighters, propane tanks, whipped cream dispensers, and refrigerants).
- Nitrites include cyclohexyl nitrite, isoamyl (amyl) nitrite, and isobutyl (butyl) nitrite, and are commonly known as "poppers" or "snappers."

## **Extent of Use**

According to the 2008 National Survey on Drug Use and Health (NSDUH), approximately 22.3 million Americans aged 12 or older reported using inhalants at least once during their lifetimes, representing 8.9% of the population aged 12 or older. Approximately 2 million (0.8%) reported past year inhalant use and 640,000 (0.3%) reported past month inhalant use.

In 2008, there were 729,000 persons aged 12 or older who had used inhalants for the first time within the past 12 months; 70.4% were under age 18 when they first used. There was no significant difference in the number of inhalant initiates between 2007 and 2008, but the 2008 estimate was significantly below the number in 2003 (871,000), 2004 (857,000), and 2005 (877,000). However, there was a significant decrease in the average age at first use among recent initiates aged 12 to 49 from 2007 (17.1 years) to 2008 (15.9 years).

Among students surveyed as part of the 2008 Monitoring the Future study, 15.7% of eighth graders, 12.8% of tenth graders, and 9.9% of twelfth graders reported lifetime use of inhalants.

### **Percent of Students Reporting Inhalant Use, 2008**

	<b>8th Grade</b>	<b>10th Grade</b>	<b>12th Grade</b>
<b>Past month</b>	4.1%	2.1%	1.4%
<b>Past year</b>	8.9	5.9	3.8
<b>Lifetime</b>	15.7	12.8	9.9

Approximately 33.9% of eighth graders and 41.2% of tenth graders surveyed in 2008 reported that trying inhalants once or twice was a “great risk.”

The [Centers for Disease Control and Prevention \(CDC\)](#) also conducts a survey of high school students throughout the United States called the [Youth Risk Behavior Surveillance System \(YRBSS\)](#). Among students surveyed for the 2007 YRBSS, 13.3% reported using inhalants at least one time during their lifetimes.

Percent of Students Reporting Lifetime Inhalant Use, 2003–2007

	<b>2003</b>	<b>2005</b>	<b>2007</b>
<b>9th grade</b>	13.6%	14.1%	15.0%
<b>10th grade</b>	11.1	13.2	14.6
<b>11th grade</b>	11.0	11.4	12.5
<b>12th grade</b>	11.8	10.1	10.2
<b>Total</b>	12.1	12.4	13.3

Approximately 6.3% of college students and 9.1% of young adults (ages 19–28) surveyed in 2007 reported lifetime use of inhalants.

Percent of College Students/Young Adults Reporting Inhalant Use, 2006–2007

	<b>College Students</b>		<b>Young Adults</b>	
	<b>2006</b>	<b>2007</b>	<b>2006</b>	<b>2007</b>
<b>Past month</b>	0.4%	0.1%	0.3%	0.2%
<b>Past year</b>	1.5	1.5	1.3	0.8
<b>Lifetime</b>	7.4	6.3	10.9	9.1

According to data from the Bureau of Justice Statistics, approximately 13.6% of State prisoners and 7.5% of Federal prisoners surveyed in 2004 indicated that they used inhalants at some point in their lives.

Percent of Prisoners Reporting Inhalant Use, 1997 and 2004

	<b>State Prisoners</b>		<b>Federal Prisoners</b>	
	<b>1997</b>	<b>2004</b>	<b>1997</b>	<b>2004</b>
<b>In month before offense</b>	1.0%	1.0%	0.5%	0.8%
<b>Regularly*</b>	5.4	4.5	2.6	3.0
<b>Ever in lifetime</b>	14.4	13.6	7.7	7.5
* Used drugs at least once a week for at least a month.				

## **Health Effects**

Most inhalants act directly on the central nervous system (CNS) to produce psychoactive, or mind-altering, effects. They have short-term effects similar to anesthetics, which slow the body's functions.

Most inhalants produce a rapid high that resembles alcohol intoxication with initial excitation, then drowsiness, dis-inhibition, lightheadedness, and agitation. If sufficient amounts are inhaled, nearly all solvents and gases produce anesthesia, a loss of sensation, and even loss of consciousness.

Prolonged sniffing of the highly concentrated chemicals in solvents or aerosol sprays can induce irregular and rapid heart rhythms and lead to heart failure and death within minutes of a session of prolonged sniffing. This syndrome, known as "sudden sniffing death," can result from a single session of inhalant use. Chronic exposure to inhalants can produce significant, sometimes irreversible, damage to the heart, lungs, liver, and kidneys.

A strong need to continue using inhalants has been reported among many individuals, particularly those who abuse inhalants for prolonged periods over many days. Compulsive use and a mild withdrawal syndrome can occur with long-term inhalant abuse. Additional symptoms exhibited by long-term inhalant abusers include weight loss, muscle weakness, disorientation, inattentiveness, lack of coordination, irritability, and depression.

Of an estimated 113 million emergency department (ED) visits in the U.S. during 2006, the [Drug Abuse Warning Network \(DAWN\)](#) estimates that 1,742,887 were drug-related. DAWN data indicate that inhalants were involved in 5,643 ED visits.

## **Treatment**

From 1997 to 2007, the number of admissions to treatment in which inhalants was the primary drug of abuse decreased from 1,819 in 1997 to 992 in 2007. Inhalant admissions represented 0.1% of the total drug/alcohol admissions to treatment during both 1997 and 2007.

Those admitted to treatment for inhalants during 2007 were primarily male (63.9%) and white (64%). Approximately 50% of the inhalant admissions in 2007 involved clients under the age of 20.

## **Legislation**

Although not regulated under the Controlled Substances Act (CSA), many State legislatures have attempted to deter youth who buy legal products to get high by placing

restrictions on the sale of these products to minors. As reported by the National Conference of State Legislatures, by 2000, 38 States had adopted laws preventing the sale, use, and/or distribution to minors of various products commonly abused as inhalants. Some States have introduced fines, incarceration, or mandatory treatment for the sale, distribution, use, and/or possession of inhalable chemicals.

## Street Terms

Common terms Associated with Inhalants

Term	Definition	Term	Definition
<b>Air Blast</b>	Inhalants	<b>Bagging</b>	Using Inhalants
<b>Buzz Bomb</b>	Nitrous Oxide	<b>Climax</b>	Isobutyl Nitrate
<b>Glading</b>	Using Inhalants	<b>Gluey</b>	Sniffing or inhaling glue
<b>Huffer</b>	Inhalants abuser	<b>Poor Man's Pot</b>	Inhalants

## Heroin Facts & Figures

### Overview

Heroin is a highly addictive drug and is the most widely abused and most rapidly acting of the opiates. Heroin is processed from morphine, a naturally occurring substance extracted from the seed pod of certain varieties of poppy plants.

Pure heroin, which is a white powder with a bitter taste, is rarely sold on the streets. Most illicit heroin is a powder varying in color from white to dark brown. The differences in color are due to impurities left from the manufacturing process or the presence of additives. Another form of heroin, "black tar" heroin, is primarily available in the western and southwestern U.S. This heroin, which is produced in Mexico, may be sticky like roofing tar or hard like coal, with its color varying from dark brown to black.<sup>2</sup>

Heroin can be injected, smoked, or sniffed/snorted. Injection is the most efficient way to administer low-purity heroin. The availability of high-purity heroin, however, and the fear of infection by sharing needles has made snorting and smoking the drug more

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common. National Institute on Drug Abuse (NIDA) researchers have confirmed that all forms of heroin administration are addictive.

## **Extent of Use**

According to the 2008 National Survey on Drug Use and Health (NSDUH), approximately 3.8 million Americans aged 12 or older reported trying heroin at least once during their lifetimes, representing 1.5% of the population aged 12 or older. Approximately 453,000 (0.2%) reported past year heroin use and 213,000 (0.1%) reported past month heroin use.

In 2008, there were 114,000 persons aged 12 or older who had used heroin for the first time within the past 12 months. The average age at first use among recent initiates aged 12 to 49 was 23.4 years in 2008. There were no significant changes in the number of initiates or in the average age at first use from 2007 to 2008. The number of heroin initiates was not significantly different from the number in 2002 (117,000).

Among students surveyed as part of the 2008 Monitoring the Future study, 1.4% of eighth graders, 1.2% of tenth graders, and 1.3% of twelfth graders reported lifetime use of heroin.

### **Percent of Students Reporting Heroin Use, 2008**

	<b>8th Grade</b>	<b>10th Grade</b>	<b>12th Grade</b>
<b>Past month use</b>	0.4%	0.4%	0.4%
<b>Past year use</b>	0.9	0.8	0.7
<b>Lifetime use</b>	1.4	1.2	1.3

Approximately 75.5% of eighth graders, 83.1% of tenth graders, and 73.2% of twelfth graders surveyed in 2008 reported that using heroin occasionally without a needle was a “great risk.” Additionally, approximately 86.4% of twelfth graders surveyed in 2008 reported that using heroin regularly was a “great risk.”

### **Percent of Students Reporting Risk of Using Heroin, 2008**

<b>Percent Saying “Great Risk”</b>	<b>8th Grade</b>	<b>10th Grade</b>	<b>12th Grade</b>
<b>Try once/twice w/o needle</b>	60.8%	70.8%	60.8%
<b>Use occasionally w/o needle</b>	75.5	83.1	73.2

Regarding the ease by which one can obtain heroin, 13.3% of eighth graders, 17.2% of tenth graders, and 25.4% of twelfth graders surveyed in 2008 reported that heroin was "fairly easy" or "very easy" to obtain.

The [Centers for Disease Control and Prevention \(CDC\)](#) also conducts a survey of high school students throughout the United States called the [Youth Risk Behavior Surveillance System \(YRBSS\)](#). Among students surveyed for the 2007 YRBSS, 2.3% reported using heroin at least one time during their lifetimes.

Percent of Students Reporting Lifetime Heroin Use, 2003-2007

	<b>2003</b>	<b>2005</b>	<b>2007</b>
<b>9th grade</b>	3.5%	2.8%	2.6%
<b>10th grade</b>	2.9	2.5	1.8
<b>11th grade</b>	3.0	1.8	1.8
<b>12th grade</b>	2.9	2.0	2.6
<b>Total</b>	3.3	2.4	2.3

Approximately 0.5% of college students and 1.6% of young adults (ages 19-28) surveyed in 2007 reported lifetime use of heroin.

Percent of College Students/Young Adults Reporting Heroin Use, 2006–2007

	<b>College Students</b>		<b>Young Adults</b>	
	<b>2006</b>	<b>2007</b>	<b>2006</b>	<b>2007</b>
<b>Past month</b>	0.2%	0.1%	0.2%	0.1%
<b>Past year</b>	0.3	0.2	0.4	0.3
<b>Lifetime</b>	0.7	0.5	1.9	1.6

According to data from the Bureau of Justice Statistics, approximately 23.4% of State prisoners and 17.9% of Federal prisoners surveyed in 2004 indicated that they used heroin/opiate at some point in their lives.

Percent of Prisoners Reporting Heroin/Opiate Use, 1997 and 2004

	State Prisoners		Federal Prisoners	
	1997	2004	1997	2004
<b>At time of offense</b>	5.6%	4.4%	3.0	3.2
<b>In month before offense</b>	9.2	8.2	5.4	5.8
<b>Regularly*</b>	15.0	13.1	8.9	9.2
<b>Ever in lifetime</b>	24.5	23.4	16.1	17.9
* Used drugs at least once a week for at least a month.				

## **Health Effects**

The short-term effects of heroin abuse appear soon after taking the drug. Intravenous injection provides the greatest intensity and most rapid onset of the initial rush that users experience. Intravenous users typically experience the rush within 7 to 8 seconds after injection, while intramuscular injection produces a slower onset of this euphoric feeling, taking 5 to 8 minutes. When heroin is sniffed or smoked, the peak effects of the drug are usually felt within 10 to 15 minutes.

In addition to the initial feeling of euphoria, the short-term effects of heroin include a warm flushing of the skin, dry mouth, and heavy extremities. After the initial euphoric feeling, the user experiences an alternately wakeful and drowsy state. Due to the depression of the central nervous system, mental functioning becomes clouded. Additionally, breathing may be slowed to the point of respiratory failure.

After repeatedly using heroin for a period of time, the long-term effects of the substance begin to appear in the user. Chronic users may develop collapsed veins, infection of the heart lining and valves, abscesses, and liver disease. Additionally, pulmonary complications, including various types of pneumonia, may also result in the user.

One of the most significant effects of heroin use is addiction. With regular heroin use, tolerance to the drug develops. Once this happens, the abuser must use more heroin to achieve the same intensity or effect that they are seeking. As higher doses of the drug are used over time, physical dependence and addiction to the drug develop.

Within a few hours after the last administration of heroin, withdrawal may occur. This withdrawal can produce effects such as drug craving, restlessness, muscle and bone pain,

and vomiting. Major withdrawal symptoms peak between 48 and 72 hours after the last dose and subside after about a week.

In addition to the effects of the drug itself, users who inject heroin also put themselves at risk for contracting HIV, hepatitis C (HCV), and other infectious diseases. Approximately 70–80% of the new HCV infections in the U.S. each year are among injection drug users.

Street heroin is often mixed with various substances, including sugar, starch, quinine, and sometimes, strychnine or other poisons, causing an added danger to using heroin. Because heroin abusers do not know the actual strength of the drug or its true contents, they are at a great risk of overdose or death.

Of an estimated 113 million emergency department (ED) visits in the U.S. during 2006, the [Drug Abuse Warning Network \(DAWN\)](#) estimates that 1,742,887 were drug-related. DAWN data indicate that heroin was involved in 189,780 ED visits.

## **Treatment**

A variety of effective treatments are available for heroin addiction. For example, methadone, a synthetic opiate that blocks the effects of heroin and eliminates withdrawal symptoms, has proven successful for heroin addiction. Additionally, buprenorphine and many behavioral therapies are also used to treat heroin addiction.

From 1997 to 2007, the number of admissions to treatment in which heroin was the primary drug of abuse increased from 235,143 in 1997 to 246,871 in 2007. Heroin admissions represented 14.6% of the total drug/alcohol admissions to treatment during 1997 and 13.6% of the treatment admissions in 2007. The average age of those admitted to treatment for heroin during 2007 was 36 years.

## **Arrests & Sentencing**

During FY 2004, there were 32,980 Federal arrests for drug law violations, 1,881 of which were for heroin. Additionally, the Drug Enforcement Administration (DEA) reported 2,273 arrests for opiates in FY 2004.

During FY 2008, there were 1,476 Federal offenders sentenced for heroin-related charges in U.S. Courts. Approximately 97.3% of these cases involved trafficking and 0.8% of cases involved simple possession.

The Arrestee Drug Abuse Monitoring (ADAM) II program is designed to gather information on drug use and related matters from adult male offenders within 48 hours of arrest. ADAM II serves as a critical source of data for estimating trends in drug use in local areas, understanding the relationship between drugs and crime, and describing drug

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market activity in the adult male arrestee population in 10 U.S. sites during 2008. Self-report data on recent use show a consistently high frequency of use among arrestees who use heroin. In 7 of the 10 sites arrestees who admit heroin use report that they use it 15 or more days out of the month.

Percent of Adult Arrestees Reporting Heroin Use, by City, 2008

	<b>Past 30 Day Use</b>	<b>Past Year Use</b>
<b>Atlanta, GA</b>	0.5%	1.5%
<b>Charlotte, NC</b>	0.6	2.2
<b>Chicago, IL</b>	24.8	26.7
<b>Denver, CO</b>	1.5	2.0
<b>Indianapolis, IN</b>	1.2	1.8
<b>Minneapolis, MN</b>	2.9	4.0
<b>New York, NY</b>	5.5	7.6
<b>Portland, OR</b>	7.7	10.2
<b>Sacramento, CA</b>	2.1	2.9
<b>Washington, DC</b>	4.4	4.3

## **Production & Trafficking**

The U.S. heroin market is supplied entirely from foreign sources of opium. Heroin available in the U.S. is produced in four distinct geographical areas: South America (Colombia), Southeast Asia (primarily Burma), Mexico, and Southwest Asia (principally Afghanistan).

Much of the heroin used in the United States comes from poppies grown in Colombia and Mexico, though opium gum production in these countries accounts for less than 4% of the world's total production and Colombian production has been cut by 60% since 2001. Mexico supplies most of the heroin found in the western United States while Colombia supplies most of the heroin east of the Mississippi. Colombian law enforcement eradicated 375 hectares of opium poppy in 2007, while the Government of Mexico (GOM) reported eradicating 7,784 hectares of opium poppy.

According to 2006 Federal-wide Drug Seizure System (FDSS) data, Federal agencies seized 1,774 kilograms of heroin. FDSS contains information about drug seizures made within the jurisdiction of the United States by the DEA, Federal Bureau of Investigation, U.S. Customs Service, U.S. Border Patrol, and U.S. Coast Guard.

## Legislation

Heroin was first synthesized from morphine in 1874 and became widely used in medicine in the early 1900s. At that time, physicians were unaware of heroin's potential for addiction. The first comprehensive control of heroin in the U.S. occurred with the Harrison Narcotic Act of 1914. Heroin currently falls into Schedule I of the Controlled Substances Act based on its potential for abuse and its lack of accepted medical use.

## Street Terms

Common Terms Associated with Heroin

Term	Definition	Term	Definition
<b>A-bomb</b>	Marijuana mixed w/heroin	<b>Hell dust</b>	Heroin
<b>Big H</b>	Heroin	<b>Nose drops</b>	Liquefied heroin
<b>Dragon rock</b>	Heroin mixed w/cocaine	<b>Smack</b>	Heroin

## Hallucinogens Facts & Figures

### Overview

Hallucinogenic substances are characterized by their ability to cause changes in a person's perception of reality. Persons using hallucinogenic drugs often report seeing images, hearing sounds, and feeling sensations that seem real, but do not exist. In the past, plants and fungi that contained hallucinogenic substances were abused. Currently, these hallucinogenic substances are produced synthetically to provide a higher potency.

LSD (lysergic acid diethylamide) is one of the major drugs making up the hallucinogen class of drugs. It was discovered in 1938 and is manufactured from lysergic acid, which is found in ergot, a fungus that grows on rye and other grains.

PCP (phencyclidine) was developed in the 1950s as an intravenous anesthetic, but its use in humans was discontinued in 1965, because patients often became agitated, delusional, and irrational while recovering from its anesthetic effects. PCP is now being illegally manufactured in laboratories. It is a white crystalline powder that is readily soluble in

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water or alcohol. It has a distinctive bitter chemical taste. PCP can be mixed easily with dyes and turns up on the illicit drug market in a variety of tablets, capsules, and colored powders. It can be snorted, smoked, or ingested. For smoking, PCP is often applied to a leafy material such as mint, parsley, oregano, or marijuana.

Psilocybin is obtained from certain mushrooms found in South America, Mexico, and the U.S, although the substance can also be produced synthetically. Mushrooms containing psilocybin are available fresh or dried with long, narrow stems topped by caps with dark gills on the underside. These mushrooms are usually ingested orally, but can also be brewed in a tea or added to food to mask the bitter flavor. Once ingested, psilocybin is broken down in the user's body to produce psilocyn, another hallucinogenic substance.

Mescaline is the active hallucinogenic ingredient in peyote. Peyote is a small, spineless cactus historically used by natives in Mexico and the southwestern U.S. as part of religious rites. Mescaline can also be produced synthetically.

DMT is found in a number of plants and seeds, but can also be produced synthetically. DMT is usually ingested by snorting, smoking, or injecting the drug. DMT is not effective in producing hallucinogenic effects when ingested by itself and is therefore used in conjunction with another drug that inhibits its metabolism.

Foxy, also known as Foxy Methoxy, is available in powder, capsule, and tablet form and is usually ingested orally (although it can be snorted or smoked). Foxy capsules and tablets vary in color and logos sometimes appear on tablets. AMT is often found in tablet and capsule form

Dextromethorphan (sometimes called "DXM" or "robo") is a cough-suppressing ingredient in a variety of over-the-counter cold and cough medications. At the doses recommended for treating coughs, the drug is safe and effective. At much higher doses, dextromethorphan produces dissociative effects similar to those of PCP and ketamine.

## **Extent of Use**

According to the 2008 National Survey on Drug Use and Health (NSDUH), approximately 36 million Americans aged 12 or older reported trying hallucinogens at least once during their lifetimes, representing 14.4% of the population in that age group. Approximately 3.7 million (1.5% of the population) reported past year hallucinogen use and approximately 1.1 million (0.4%) reported past month use of hallucinogens.

The 2008 NSDUH also provides specific survey results for LSD and PCP use. Regarding LSD use, 23.5 million Americans (9.4% of the population aged 12 or older) reported lifetime use, 802,000 (0.3%) reported past year use, and 154,000 (0.1%) reported past month use. Concerning PCP use, 6.6 million (2.7%) reported lifetime use, 99,000 (0.0%) reported past year use, and 24,000 (0.0%) reported past month use.

Results of the 2008 [Monitoring the Future](#) survey indicate that 3.3% of eighth graders, 5.5% of tenth graders, and 8.7% of twelfth graders reported lifetime use of hallucinogens. In 2007, these percentages were 3.1%, 6.4%, and 8.4%, respectively.

**Percent of Students Reporting Hallucinogen Use, 2007–2008**

	8th Grade		10th Grade		12th Grade	
	2007	2008	2007	2008	2007	2008
<b>Past month</b>	1.0%	0.9%	1.7%	1.3%	1.7%	2.2%
<b>Past year</b>	1.9	2.1	4.4	3.9	5.4	5.9
<b>Lifetime</b>	3.1	3.3	6.4	5.5	8.4	8.7

Approximately 1.9% of eighth graders, 2.6% of tenth graders, and 4.0% of twelfth graders surveyed in 2008 reported lifetime use of LSD.

**Percent of Students Reporting LSD Use, 2007–2008**

	8th Grade		10th Grade		12th Grade	
	2007	2008	2007	2008	2007	2008
<b>Past month</b>	0.5%	0.5%	0.7%	0.7%	0.6%	1.1%
<b>Past year</b>	1.1	1.3	1.9	1.8	2.1	2.7
<b>Lifetime</b>	1.6	1.9	3.0	2.6	3.4	4.0

Among high school seniors surveyed in 2008, 1.8% reported lifetime use of PCP (PCP use among eighth and tenth graders is not captured by the Monitoring the Future study).

**Percent of Twelfth Graders Reporting PCP Use, 2007–2008**

	2007	2008
<b>Past month</b>	0.5%	0.6%
<b>Past year</b>	0.9	1.1
<b>Lifetime</b>	2.1	1.8

Approximately 38.5% of eighth graders, 56.8% of tenth graders, and 67.3% of twelfth graders surveyed in 2007 reported that taking LSD regularly was a "great risk."

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**Percent of Students Reporting Risk of Using LSD, 2008**

<b>Say "great risk" to:</b>	<b>8th Grade</b>	<b>10th Grade</b>	<b>12th Grade</b>
<b>Take LSD once/twice</b>	21.9%	34.6%	33.9%
<b>Take LSD regularly</b>	36.9	55.7	63.6

Approximately 9.1% of college students and 16.0% of young adults (ages 19-28) surveyed in 2007 reported lifetime use of hallucinogens.

**Percent of College Students/Young Adults Using Hallucinogens, 2006–2007**

	<b>College Students</b>		<b>Young Adults</b>	
	<b>2006</b>	<b>2007</b>	<b>2006</b>	<b>2007</b>
<b>Past month</b>	0.9%	1.3%	0.7%	0.9%
<b>Past year</b>	5.6	4.9	4.1	3.8
<b>Lifetime</b>	10.6	9.1	17.2	16.0

According to data from the Bureau of Justice Statistics, approximately 32.9% of State prisoners and 25.9% of Federal prisoners surveyed in 2004 indicated that they used hallucinogens (includes LSD, PCP, and ecstasy) at some point in their lives.

**Percent of Prisoners Reporting Hallucinogen Use, 1997 and 2004**

	<b>State Prisoners</b>		<b>Federal Prisoners</b>	
	<b>1997</b>	<b>2004</b>	<b>1997</b>	<b>2004</b>
<b>At time of offense</b>	1.8%	2.0%	0.8%	1.9%
<b>In month before offense</b>	4.0	5.9	1.7	5.8
<b>Regularly*</b>	11.3	13.3	6.4	11.9
<b>Ever in lifetime</b>	28.7	32.9	19.0	25.9

\* Used drugs at least once a week for at least a month.

## Health Effects

Hallucinogens can produce physiological effects including elevated heart rate, increased blood pressure, and dilated pupils. These drugs are often unpredictable and a user may experience different effects compared to other users or past usage. Users often experience changes in perception, thought, and mood.

The effects of LSD are unpredictable. They depend on the amount of the drug taken; the user's personality, mood, and expectations; and the surroundings in which the drug is used. Usually, the user feels the first effects of the drug within 30 to 90 minutes of ingestion. These experiences last for extended periods of time and typically begin to clear after about 12 hours. The physical effects include dilated pupils, higher body temperature, increased heart rate and blood pressure, sweating, loss of appetite, sleeplessness, dry mouth, and tremors. Sensations may seem to "crossover" for the user, giving the feeling of hearing colors and seeing sounds. If taken in a large enough dose, the drug produces delusions and visual hallucinations.

The effects of PCP use are unpredictable, can be felt within minutes of ingestion, and can last for many hours. Physical effects can include shallow, rapid breathing; increased blood pressure; elevated heart rate; and increased temperature. Nausea, blurred vision, dizziness, and decreased awareness can also occur. High doses of PCP can cause convulsions, coma, hyperthermia, and death. PCP is an addictive drug that can cause psychological dependence, cravings, and compulsive drug seeking behaviors.

Physical effects of psilocybin are usually experienced within 20 minutes of ingestion and can last for 6 hours. Negative physical symptoms of psilocybin use can include vomiting, muscle weakness, drowsiness, and panic reactions. Frequent use of this drug can result in the development of a tolerance.

AMT and Foxy share many chemical and pharmacological characteristics with other Schedule I hallucinogens and produce similar effects.

Dextromethorphan users describe a set of distinct dose-dependent "plateaus" ranging from a mild stimulant effect with distorted visual perceptions at low (approximately 2-ounce) doses to a sense of complete dissociation from one's body at doses of 10 ounces or more. The effects typically last for 6 hours.

Of an estimated 113 million emergency department (ED) visits in the U.S. during 2006, the Drug Abuse Warning Network (DAWN) estimates that 1,742,887 were drug-related. DAWN data indicate that LSD was involved in 4,002 ED visits; PCP was involved in 21,960 visits; and miscellaneous hallucinogens were involved in 3,898 visits.

## **Treatment**

From 1997 to 2007, the number of admissions to treatment in which hallucinogens (LSD, DMT, STP, mescaline, peyote, etc.) were reported as the primary drugs of abuse decreased from 2,672 in 1997 to 1,502 in 2007. The hallucinogens admissions represented 0.2% of the total drug/alcohol admissions to treatment during 1997 and 0.1% of the treatment admissions in 2007.

Admissions for PCP increased over the same time period from 1,896 admissions in 1997 to 3,124 admissions in 2007, representing 0.1% and 0.2%, respectively, of all treatment admissions during 1997 and 2007.

## **Arrests and Sentencing**

On March 31, 2003, William Leonard Pickard and Clyde Apperson were found guilty of one count of conspiracy to manufacture and distribute more than 10 grams of LSD from August 1999 to November 2000 and one count of possession with the intent to distribute more than 10 grams of LSD on November 6, 2000. The case involving these two individuals included the largest LSD lab seizure ever made by the DEA. Agents seized 41.3 kilograms of LSD and 23.6 kilograms of iso-LSD, a by-product from the manufacture of LSD. In the history of the DEA, there have only been 4 seizures of complete LSD labs. Three of these seizures involved Pickard and Apperson.

The Drug Enforcement Administration (DEA) reported 25 LSD-related arrests during 2006. This is up from 2005, when the DEA reported 8 LSD-related arrests. The DEA also reported 60 PCP-related arrests during 2006, which is up slightly from 57 in 2005.

## **Production and Trafficking**

PCP production and distribution is limited and based primarily in southern California. PCP laboratory seizure data indicate that domestic PCP production is relatively low and decreasing. From January through October 12, 2007, authorities reported 2 LSD lab seizures. During full year 2006, authorities reported 5 such seizures.

The availability of LSD has declined to very low levels since the seizure of a large LSD laboratory in Kansas and the arrest of its operators in late 2000. From January 1, 2006 through October 12, 2007, authorities reported no seizures of LSD labs.

A gram of AMT or Foxy, in bulk powder form, costs less than \$150 and can be obtained via the Internet. Dealers have tried to capitalize on the club drug trend and are selling non-controlled synthetic substances in raves and nightclubs.

## Legislative History

LSD is a Schedule I substance under the Controlled Substances Act (CSA), meaning it has a high potential for abuse, there is no currently accepted medical use in treatment in the United States, and there is a lack of accepted safety for use of the substance under medical supervision.

PCP is a Schedule II substance under the CSA. Schedule II substances indicate that the drug has a high potential for abuse, is currently accepted for medical use in treatment in the United States, and may lead to severe psychological or physical dependence.

Psilocybin and psilocyn are both Schedule I substances under the CSA although mushrooms are not scheduled under the CSA. Mescaline, peyote, and DMT are also Schedule I substances under the CSA.

In April 2003, the DEA temporarily designated Foxy as a Schedule I substance under the CSA. AMT was also placed under a temporary designation as a Schedule I substance by the DEA in 2003.

## Street Terminology

Term	Definition	Term	Definition
<b>Acid</b>	LSD	<b>Angel Dust</b>	PCP
<b>Blotter</b>	LSD	<b>Boat</b>	PCP
<b>Dots</b>	LSD	<b>Magic mushrooms</b>	Psilocybin
<b>Mellow yellow</b>	LSD	<b>Musk</b>	Psilocybin
<b>Shrooms</b>	Psilocybin	<b>Tic tac</b>	PCP
<b>Widow pane</b>	LSD	<b>Zoom</b>	PCP

# Marijuana Facts & Figures

## Overview

Marijuana is a green, brown, or gray mixture of dried, shredded leaves, stems, seeds, and flowers of the hemp plant (*Cannabis sativa*). Cannabis is a term that refers to marijuana and other drugs made from the same plant. Other forms of cannabis include sinsemilla, hashish, and hash oil. All forms of cannabis are mind-altering (psychoactive) drugs.

The main active chemical in marijuana is THC (delta-9-tetrahydrocannabinol). Short-term effects of marijuana use include problems with memory and learning, distorted perception, difficulty in thinking and problem solving, loss of coordination, increased heart rate, and anxiety.

Marijuana is usually smoked as a cigarette (called a joint) or in a pipe or bong. Marijuana has also appeared in blunts, which are cigars that have been emptied of tobacco and refilled with marijuana, sometimes in combination with another drug, such as crack. It can also be mixed into foods or used to brew a tea.

## Extent of Use

Marijuana is the most commonly used illicit drug. According to the 2008 National Survey on Drug Use and Health (NSDUH), an estimated 102 million Americans aged 12 or older have tried marijuana at least once in their lifetimes, representing 41% of the U.S. population in that age group. The number of past year marijuana users in 2008 was approximately 25.8 million (10.3% of the population aged 12 or older) and the number of past month marijuana users was 15.2 million (6.1%).

Among 12-17 year olds surveyed as part of the 2008 NSDUH, 6.7% reported past month marijuana use. Additional NSDUH results indicate that 16.5% of 18-25 year olds and 4.2% of those aged 26 or older reported past month use of marijuana.

In 2008, there were 2.2 million persons aged 12 or older who had used marijuana for the first time within the past 12 months; this averages to about 6,000 initiates per day. This estimate was about the same as the estimate in 2007 (2.1 million) and 2002 (2.2 million).

A 2002 SAMHSA report, *Initiation of Marijuana Use: Trends, Patterns and Implications*, concludes that the younger children are when they first use marijuana, the more likely they are to use cocaine and heroin and become dependent on drugs as adults. The report found that 62% of adults age 26 or older who initiated marijuana before they were 15 years old reported that they had used cocaine in their lifetime. More than 9% reported they had used heroin and 53.9% reported non-medical use of psychotherapeutics. This compares to a 0.6% rate of lifetime use of cocaine, a 0.1% rate

of lifetime use of heroin and a 5.1% rate of lifetime non-medical use of psychotherapeutics for those who never used marijuana. Increases in the likelihood of cocaine and heroin use and drug dependence are also apparent for those who initiate use of marijuana at any later age.

Results of the 2008 [Monitoring the Future](#) survey indicate that 14.6% of eighth graders, 29.9% of tenth graders, and 42.6% of twelfth graders reported lifetime use of marijuana. In 2007, these percentages were 14.2%, 31.0%, and 41.8%, respectively.

**Percent of Students Reporting Marijuana Use, 2007–2008**

	8th Grade		10th Grade		12th Grade	
	2007	2008	2007	2008	2007	2008
<b>Past month</b>	5.7%	5.8%	14.2%	13.8%	18.8%	19.4%
<b>Past year</b>	10.3	10.9	24.6	23.9	31.7	32.4
<b>Lifetime</b>	14.2	14.6	31.0	29.9	41.8	42.6

Approximately 72.0% of eighth graders, 64.8% of tenth graders, and 51.7% of twelfth graders surveyed in 2008 reported that smoking marijuana regularly was a "great risk."<sup>7</sup>

**Percent of Students Reporting Risk of Using Marijuana, 2008**

Say "great risk" to:	8th Grade	10th Grade	12th Grade
<b>Try marijuana once/twice</b>	32.8%	22.2%	18.6%
<b>Smoke marijuana occasionally</b>	50.2	35.6	27.1
<b>Smoke marijuana regularly</b>	74.3	64.5	54.8

The [Youth Risk Behavior Surveillance System \(YRBSS\)](#) study by the [Centers for Disease Control and Prevention \(CDC\)](#) surveys high school students on several risk factors including drug and alcohol use. Results of the 2007 survey indicate that 38.1% of high school students reported using marijuana at some point in their lifetimes. Additional YRBSS results indicate that 19.7% of students surveyed in 2007 reported current (past month) use of marijuana.

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Percent of Students Reporting Marijuana Use, 2003–2007

	<b>2003</b>	<b>2005</b>	<b>2007</b>
<b>Current use</b>	22.4%	20.2%	19.7%
<b>Lifetime use</b>	40.2	38.4	38.1

Approximately 47.5% of college students and 56.7% of young adults (ages 19–28) surveyed in 2007 reported lifetime use of marijuana.

Percent of College Students/Young Adults Using Marijuana, 2006–2007

	<b>College Students</b>		<b>Young Adults</b>	
	<b>2006</b>	<b>2007</b>	<b>2006</b>	<b>2007</b>
<b>Past month</b>	16.7%	16.8%	15.7%	16.0%
<b>Past year</b>	30.2	31.8	27.7	28.5
<b>Lifetime</b>	46.9	47.5	56.7	56.7

According to data from the Bureau of Justice Statistics, approximately 77.6% of State prisoners and 71.2% of Federal prisoners surveyed in 2004 indicated that they used marijuana/hashish at some point in their lives.

Percent of Prisoners Reporting Marijuana Use, 1997 and 2004

	<b>State Prisoners</b>		<b>Federal Prisoners</b>	
	<b>1997</b>	<b>2004</b>	<b>1997</b>	<b>2004</b>
<b>At time of offense</b>	15.1%	15.4%	10.8%	14.0%
<b>In month before offense</b>	39.2	40.3	30.4	36.2
<b>Regularly*</b>	58.3	59.0	46.6	53.0
<b>Ever in lifetime</b>	77.0	77.6	65.2	71.2

\* Used drugs at least once a week for at least a month.

## **Health Effects**

Marijuana abuse is associated with many detrimental health effects. These effects can include respiratory illnesses, problems with learning and memory, increased heart rate, and impaired coordination. A number of studies have also shown an association between chronic marijuana use and increased rates of anxiety, depression, suicidal ideation, and schizophrenia. Long-term marijuana abuse can lead to addiction. Studies conducted on both people and animals suggest marijuana abuse can cause physical dependence. Withdrawal symptoms may include irritability, sleeplessness, decreased appetite, anxiety, and drug craving.

Someone who smokes marijuana regularly may have many of the same respiratory problems that tobacco smokers do, such as daily cough and phlegm production, more frequent acute chest illnesses, a heightened risk of lung infections, and a greater tendency toward obstructed airways. Cancer of the respiratory tract and lungs may also be promoted by marijuana smoke. Marijuana has the potential to promote cancer of the lungs and other parts of the respiratory tract because marijuana smoke contains 50 percent to 70 percent more carcinogenic hydrocarbons than does tobacco smoke.

Marijuana's damage to short-term memory seems to occur because THC alters the way in which information is processed by the hippocampus, a brain area responsible for memory formation. In one study, researchers compared marijuana smoking and nonsmoking 12th-graders' scores on standardized tests of verbal and mathematical skills. Although all of the students had scored equally well in 4th grade, those who were heavy marijuana smokers, i.e., those who used marijuana seven or more times per week, scored significantly lower in 12th grade than nonsmokers. Another study of 129 college students found that among heavy users of marijuana critical skills related to attention, memory, and learning were significantly impaired, even after they had not used the drug for at least 24 hours.

Of an estimated 113 million emergency department (ED) visits in the U.S. during 2006, the Drug Abuse Warning Network (DAWN) estimates that 1,742,887 were drug-related. DAWN data indicate that marijuana was involved in 290,563 ED visits.

## **Treatment**

From 1997 to 2007, the number of admissions to treatment in which marijuana was the primary drug of abuse increased from 197,840 in 1997 to 287,933 in 2007. The marijuana admissions represented 12.3% of the total drug/alcohol admissions to treatment during 1997 and 15.8% of the treatment admissions in 2007. The average age of those admitted to treatment for marijuana during 2007 was 24 years.

## **Arrests & Sentencing**

According to the Federal Bureau of Investigation's Uniform Crime Reporting Program, there were an estimated total of 1,841,182 state and local arrests for drug abuse violations in the United States during 2007. Of these drug abuse violation arrests, 5.3% were for the sale/manufacture of marijuana and 42.1% were for marijuana possession.

According to the National Drug Intelligence Center there were 5,039 Federal marijuana-related arrests during 2006. This is down from the 5,599 such arrests during 2005.

According to a 2004 Bureau of Justice Statistics survey of state and Federal prisoners, approximately 12.7% of state prisoners and 12.4% of Federal prisoners were serving time for a marijuana-related offense. This is a decrease from 1997 when the figures were 12.9% and 18.9%, respectively.

During FY 2008, there were 6,337 Federal offenders sentenced for marijuana-related charges in U.S. Courts. Approximately 97.8% of these cases involved trafficking and 1.6% of cases involved simple possession.

The Arrestee Drug Abuse Monitoring (ADAM) II program is designed to gather information on drug use and related matters from adult male offenders within 48 hours of arrest. ADAM II serves as a critical source of data for estimating trends in drug use in local areas, understanding the relationship between drugs and crime, and describing drug market activity in the adult male arrestee population in 10 U.S. sites during 2008. In 9 out of the 10 sites, 45% or more of the arrestees reported using marijuana within the past year.

Percent of Adult Arrestees Reporting Marijuana Use, by City, 2008

	<b>Past 30 Day Use</b>	<b>Past Year Use</b>
<b>Atlanta, GA</b>	41.4%	47.0%
<b>Charlotte, NC</b>	47.2	54.8
<b>Chicago, IL</b>	51.9	58.6
<b>Denver, CO</b>	44.6	49.3
<b>Indianapolis, IN</b>	43.0	51.0
<b>Minneapolis, MN</b>	45.7	51.8
<b>New York, NY</b>	40.2	44.7
<b>Portland, OR</b>	42.3	51.5
<b>Sacramento, CA</b>	45.4	51.3
<b>Washington, DC</b>	34.2	37.9

## Production & Trafficking

The threat associated with marijuana trafficking and abuse is rising, which is largely the result of a growing demand for high-potency marijuana and a related increase in the drug's availability. An increase in domestic cannabis cultivation by drug trafficking organizations contributes to this threat, particularly the recent expansion of cultivation operations by Mexican, Asian and Cuban organizations.

Most foreign-source marijuana smuggled into the United States enters through or between points of entry at the U.S.-Mexico border. During 2006, 1,115,710 kilograms of marijuana were seized along the Southwest Border. Cannabis cultivation in Mexico remains high and most of the marijuana produced in that country is destined for U.S. drug markets.

Domestic Cannabis Eradication/Suppression Program (DCE/SP) data indicate that a total of 5,231,658 marijuana plants were seized in the U.S. during 2006. This is up from 4,209,086 plants seized during 2005. The recent increases in cannabis cultivation and marijuana production within the United States coincide with the continued flow of marijuana from foreign sources, which may lead to market saturation in major markets. This saturation could reduce the price of the drug significantly.

According to combined 2002, 2003 and 2004 NSDUH data, more than three fourths (78.2%) of the past year marijuana users aged 18 to 25 bought their most recently used marijuana from a friend. The majority (56.0%) of past year marijuana users aged 18 to 25 bought their most recently used marijuana inside a home, apartment or dormitory.

## Legislation

Marijuana is a Schedule I substance under the Controlled Substances Act ([CSA](#)). Schedule I drugs are classified as having a high potential for abuse, no currently accepted medical use in treatment in the United States, and a lack of accepted safety for use of the drug or other substance under medical supervision.

In the case of *United States v. Oakland Cannabis Club* the U.S. Supreme Court ruled that marijuana has no medical value as determined by Congress. The opinion of the court stated that: "In the case of the Controlled Substances Act, the statute reflects a determination that marijuana has no medical benefits worthy of an exception outside the confines of a government-approved research project." The case reached the U.S. Supreme Court after the federal government sought an injunction in 1998 against the Oakland Cannabis Buyers Cooperative and five other marijuana distributors in California.

The United States Court of Appeals for the District of Columbia Circuit issued a ruling on May 24, 2002, upholding DEA's determination that marijuana must remain a schedule I controlled substance. The Court of Appeals rejected an appeal that contended that

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marijuana does not meet the legal criteria for classification in schedule I, the most restrictive schedule under the Controlled Substances Act.

## **Street Terms**

"Grass," "pot," and "weed" are common street terms for marijuana. Other terms include:

### Marijuana Street Terms

<b>Term</b>	<b>Definition</b>	<b>Term</b>	<b>Definition</b>
<b>420</b>	Marijuana use	<b>Homegrown</b>	Marijuana
<b>BC bud</b>	High-grade marijuana from Canada	<b>Hydro</b>	Marijuana grown in water (hydroponic)
<b>Bud</b>	Marijuana	<b>Indo</b>	Marijuana term from Northern CA
<b>Chronic</b>	Marijuana	<b>Kind bud</b>	High quality marijuana
<b>Dope</b>	Marijuana	<b>Mary Jane</b>	Marijuana
<b>Ganja</b>	Marijuana; term from Jamaica	<b>Shake</b>	Marijuana
<b>Herb</b>	Marijuana	<b>Sinsemilla</b>	Potent Marijuana

# Methamphetamine Facts & Figures

## Overview

Methamphetamine is a highly addictive central nervous system stimulant that can be injected, snorted, smoked, or ingested orally. Methamphetamine users feel a short yet intense "rush" when the drug is initially administered. The immediate effects of methamphetamine include increased activity and decreased appetite. The drug has limited medical uses for the treatment of narcolepsy, attention deficit disorders, and obesity.

Most amphetamines distributed to the black market are produced in clandestine laboratories. Methamphetamine laboratories are, by far, the most frequently encountered clandestine laboratories in the United States. The ease of clandestine synthesis, combined with tremendous profits, has resulted in significant availability of illicit methamphetamine. Large amounts of methamphetamine are also illicitly smuggled into the United States from Mexico.

## Extent of Use

According to the 2008 National Survey on Drug Use and Health (NSDUH), approximately 12.6 million Americans aged 12 or older reported using methamphetamine at least once during their lifetimes, representing 5% of the population aged 12 or older. Approximately 850,000 (0.3%) reported past year methamphetamine use and 314,000 (0.1%) reported past month methamphetamine use.

The number of recent new users of methamphetamine among persons aged 12 or older was 95,000 in 2008. This estimate was significantly lower than the estimate in 2002 (299,000), 2003 (260,000), 2004 (318,000), 2005 (192,000), 2006 (259,000), and 2007 (157,000). The average age of new methamphetamine users aged 12 to 49 in 2008 was 19.2 years, which was not significantly different from the average ages between 2002 and 2007.

Results of the 2008 [Monitoring the Future](#) survey indicate that 1.8% of eighth graders, 2.8% of tenth graders, and 3.0% of twelfth graders reported lifetime use of methamphetamine. In 2006, these percentages were 2.7%, 3.2%, and 4.4%, respectively.

**Percent of Students Reporting Methamphetamine Use, 2007–2008**

	8th Grade		10th Grade		12th Grade	
	2007	2008	2007	2008	2007	2008
<b>Past month</b>	0.6%	0.7%	0.4%	0.7%	0.6%	0.6%
<b>Past year</b>	1.1	1.2	1.6	1.5	1.7	1.2
<b>Lifetime</b>	1.8	2.3	2.8	2.4	3.0	2.8

The [Youth Risk Behavior Surveillance System \(YRBSS\)](#) study by the [Centers for Disease Control and Prevention \(CDC\)](#) surveys high school students on several risk factors including drug and alcohol use. Results of the 2007 survey indicate that 4.4% of high school students reported using methamphetamine at some point in their lifetimes. This is down from 6.2% in 2005 and 7.6% in 2003.

**Percent of Students Reporting Lifetime Meth Use, 2003–2007**

	2003	2005	2007
<b>9th grade</b>	6.7%	5.7%	3.6%
<b>10th grade</b>	7.5	5.9	4.1
<b>11th grade</b>	8.0	6.7	5.4
<b>12th grade</b>	8.0	6.4	4.5
<b>Total</b>	7.6	6.2	4.4

Approximately 1.9% of college students and 6.7% of young adults (ages 19-28) surveyed in 2007 reported lifetime use of methamphetamine.

**Percent of College Students/Young Adults Using Methamphetamine, 2006–2007**

	College Students		Young Adults	
	2006	2007	2006	2007
<b>Past month</b>	0.2%	0.1%	0.5%	0.6%
<b>Past year</b>	1.2	0.4	1.9	1.5
<b>Lifetime</b>	2.9	1.9	7.3	6.7

According to data from the Bureau of Justice Statistics, approximately 23.5% of State prisoners and 17.9% of Federal prisoners surveyed in 2004 indicated that they used methamphetamine at some point in their lives.

## Percent of Prisoners Reporting Methamphetamine Use, 1997 and 2004

	State Prisoners		Federal Prisoners	
	1997	2004	1997	2004
<b>At time of offense</b>	3.5%	6.1%	3.7%	7.2%
<b>In month before offense</b>	6.9	10.8	6.5	10.1
<b>Regularly*</b>	11.2	14.9	9.6	12.8
<b>Ever in lifetime</b>	19.4	23.5	15.1	17.9
* Used drugs at least once a week for at least a month.				

## Health Effects

Long-term methamphetamine abuse can cause addiction, anxiety, insomnia, mood disturbances, and violent behavior. Additionally, psychotic symptoms such as paranoia, hallucinations, and delusions (such as the sensation of bugs crawling under the user's skin) can occur. The psychotic symptoms can last for months or years after methamphetamine use has ceased.

Of an estimated 113 million emergency department (ED) visits in the U.S. during 2006, the Drug Abuse Warning Network (DAWN) estimates that 1,742,887 were drug-related. DAWN data indicate that methamphetamine was involved in 79,924 ED visits.

## Treatment

From 1997 to 2007, the number of admissions to treatment in which methamphetamine was the primary drug of abuse increased from 53,694 in 1997 to 137,154 in 2007. Methamphetamine admissions represented 3.3% of the total drug/alcohol admissions to treatment during 1997 and 7.5% of the treatment admissions in 2007. The average age of those admitted to treatment for methamphetamine/amphetamine during 2007 was 32 years.

## Arrests & Sentencing

The National Drug Intelligence Center reported 2,597 Federal methamphetamine-related arrests during 2006. This is down from 6,090 such arrests during 2006.

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During FY 2008, there were 4,347 Federal defendants sentenced for methamphetamine-related charges in U.S. Courts. Approximately 97.5% of the cases involved methamphetamine trafficking and 1.4% of cases involved simple possession.

The Arrestee Drug Abuse Monitoring (ADAM) II program is designed to gather information on drug use and related matters from adult male offenders within 48 hours of arrest. ADAM II serves as a critical source of data for estimating trends in drug use in local areas, understanding the relationship between drugs and crime, and describing drug market activity in the adult male arrestee population in 10 U.S. sites during 2008. During 2008, the ADAM II program collected data on methamphetamine use in 9 of its 10 sites. ADAM II data indicate that methamphetamine use remains primarily a regional phenomenon. Self reported methamphetamine use is significantly higher in Sacramento, CA and Portland, OR when compared to other sites.

Percent of Adult Arrestees Reporting Meth Use, by City, 2008

	<b>Past 30 Day Use</b>	<b>Past Year Use</b>
<b>Atlanta, GA</b>	0.1%	0.6%
<b>Charlotte, NC</b>	0.4	0.8
<b>Chicago, IL</b>	0.0	0.3
<b>Denver, CO</b>	3.0	4.8
<b>Indianapolis, IN</b>	1.0	2.5
<b>Minneapolis, MN</b>	3.0	4.3
<b>New York, NY</b>	0.2	0.5
<b>Portland, OR</b>	13.7	19.2
<b>Sacramento, CA</b>	25.6	29.5
<b>Washington, DC</b>	n/a	n/a

## **Production & Trafficking**

Decreased domestic methamphetamine production is reducing wholesale supplies of domestically produced methamphetamine. The decreased production is a result of law enforcement pressure, public awareness campaigns and increased regulation of the sale and use of precursor and essential chemicals used in methamphetamine production. However, decreases in domestic methamphetamine production have been offset by increased production in Mexico.

Methamphetamine is easily produced in clandestine laboratories or meth labs using a variety of ingredients available in stores. The manufacturing of methamphetamine is called "cooking". Cooking a batch of meth can be very dangerous due to the fact that the

chemicals used are volatile and the by-products are very toxic. Meth labs present a danger to the meth cook, the community surrounding the lab, and the law enforcement personnel who discover the lab.

The Hazardous Substances Emergency Events Surveillance ([HSEES](#)) system collects and analyzes data about the public health consequences (e.g., morbidity, mortality, and evacuations) of acute hazardous substance—release events. Of the 40,349 events reported to the HSEES system during January 1, 2000—June 30, 2004, a total of 1,791 (4%) were associated with illicit meth production. Meth events consistently had a higher percentage of persons with injuries than did nonmeth events. Of the 1,791 meth events, 558 (31%) resulted in a total of 947 injured persons.

Law enforcement reporting indicates that methamphetamine laboratories have been discovered on Federal lands throughout the United States. Methamphetamine laboratories often are discovered in or near caves, cabins, recreational areas, abandoned mines and private vehicles located on or adjacent to Federal lands.

State and Federal precursor chemical restrictions, combined with sustained law enforcement pressure, have reduced domestic methamphetamine production over the past several years. Reported methamphetamine laboratory seizures have decreased sharply each year since 2004; the year that states began implementing strong, retail-level sales restrictions of ephedrine and pseudoephedrine products. Moreover, in September 2006 the Federal Combat Methamphetamine Epidemic Act of 2005 became effective nationwide, setting restrictions on the retail sale of pseudoephedrine and ephedrine products. This Act appears to be contributing to continued decreases in domestic methamphetamine production.

Number of Reported Methamphetamine Laboratory Seizures, 2003-October 11, 2007

	<b>Methamphetamine Laboratory Seizures</b>
<b>Full Year 2002</b>	9,208
<b>Full Year 2003</b>	10,094
<b>Full Year 2004</b>	9,935
<b>Full Year 2005</b>	5,935
<b>Full Year 2006</b>	4,002
<b>Jan.-Oct 11, 2007</b>	1,802

Although intelligence indicates a decrease in domestic methamphetamine production, Mexican methamphetamine distribution networks are expanding in many U.S. drug markets and have supplanted many local midlevel and retail dealers in areas of the Great Lakes, Pacific, Southeast, Southwest and West Central Regions of the country. Mexico is

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the primary source of methamphetamine within the United States and methamphetamine production in that country remains high. Moreover, large-scale production of methamphetamine has increased significantly in Canada as outlaw motorcycle gangs and Asian drug trafficking organizations expand their position with respect to methamphetamine production in Canada.

## **Legislation**

Methamphetamine is a Schedule II narcotic under the Controlled Substances Act (CSA), Title II of the Comprehensive Drug Abuse Prevention and Control Act of 1970. The chemicals that are used to produce methamphetamine are also controlled under the Comprehensive Methamphetamine Control Act of 1996 (MCA). This legislation broadened the controls on listed chemicals used in the production of methamphetamine, increased penalties for the trafficking and manufacturing of methamphetamine and listed chemicals, and expanded the controls of products containing the licit chemicals ephedrine, pseudoephedrine and phenylpropanolamine (PPA).

Signed in October 2000, the Children's Health Act of 2000 includes provisions dealing with methamphetamine prevention, production, enforcement, treatment and abuse.

On March 9, 2006, President Bush signed the USA PATRIOT Improvement and Reauthorization Act of 2005, which includes provisions to strengthen Federal, state, and local efforts to combat the spread of methamphetamine.

## **Street Terms**

Bikers Coffee	Methlies Quick
Chalk	Poor Man's Cocaine
Chicken Feed	Shabu
Crank	Speed
Crystal Meth	Stove Top
Glass	Trash
Go-Fast	Yellow Bam
Ice	

# Prescription Drugs Facts & Figures

## Overview

The non-medical use or abuse of prescription drugs remains a serious public health concern. According to the National Institute on Drug Abuse's (NIDA) research report [\*Prescription Drugs: Abuse and Addiction\*](#), there are three classes of prescription drugs that are most commonly abused:

- opioids, which are most often prescribed to treat pain—examples include: codeine, oxycodone (OxyContin and Percocet), and morphine (Kadian and Avinza);
- central nervous system (CNS) depressants, which are used to treat anxiety and sleep disorders—examples include: barbiturates (Mebaral and Nembutal) and benzodiazepines (Valium and Xanax);
- stimulants, which are prescribed to treat the sleep disorder narcolepsy, attention-deficit hyperactivity disorder (ADHD), and obesity—examples include: dextroamphetamine (Dexedrine and Adderall) and methylphenidate (Ritalin and Concerta).

Many Americans benefit from the appropriate use of prescription pain killers, but, when abused, they can be as addictive and dangerous as illegal drugs. Prescription drugs should only be taken exactly as directed by a medical professional.

The *Synthetic Drug Control Strategy* addresses the extent of and problems associated with prescription drug abuse. Prescription drugs account for the second most commonly abused category of drugs, behind marijuana and ahead of cocaine, heroin, methamphetamine, and other drugs. Prescription drug abuse poses a unique challenge because of the need to balance prevention, education, and enforcement, with the need for legitimate access to controlled substance prescription drugs.

## Extent of Use

Data from the National Drug Intelligence Center's 2006 National Drug Threat Survey (NDTS) reveal that 78.8% of state and local law enforcement agencies reported either high or moderate availability of illegally diverted pharmaceuticals.

According to the 2008 National Survey on Drug Use and Health (NSDUH), approximately 52 million Americans aged 12 or older reported non-medical use of any psychotherapeutic at some point in their lifetimes, representing 20.8% of the population aged 12 or older. Approximately 6.2 million Americans aged 12 or older reported current (past month) use of psychotherapeutic drugs for non-medical purposes, representing 2.5%

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of the population. In this report, psychotherapeutics include any prescription-type pain reliever, tranquilizer, stimulant, or sedative but do not include over-the-counter drugs.

### **Percent of U.S. Household Population 12 and Older Reporting Past Month Non-Medical Use of Psychotherapeutics, 2008, by Age**

	<b>12-17</b>	<b>18-25</b>	<b>26 or older</b>	<b>12 or older</b>
<b>Non-medical use of psychother.</b>	2.9%	5.9%	1.9%	2.5%
<b>Pain relievers</b>	2.3	4.6	1.4	1.9
<b>OxyContin</b>	0.2	0.4	0.1	0.2
<b>Tranquilizers</b>	0.6	1.7	0.6	0.7
<b>Stimulants</b>	0.5	1.1	0.2	0.4
<b>Sedatives</b>	0.1	0.2	0.1	0.1

Additional data from the 2008 NSDUH show that there were 2.5 million persons aged 12 or older who used psychotherapeutics nonmedically for the first time within the past year, which averages out to around 7,000 initiates per day. This annual estimate of the initiates of psychotherapeutics was significantly lower than the 2004 estimate (2.8 million).

Each year, the [Monitoring the Future \(MTF\)](#) study asks drug use and related questions of 8th, 10th, and 12th graders nationwide. MTF provides usage estimates for alcohol, tobacco, illegal drugs, and substances that are only legally available by prescription. The study includes data for the non-medical use of amphetamines, stimulants including Ritalin, and sedatives (barbiturates) including: methaqualone, tranquilizers, the narcotic pain relievers Vicodin and OxyContin, as well as GHB, Ketamine, and Rohypnol, which is not legal for prescription in the United States. Survey respondents were asked to exclude from their responses any use of prescription drugs that occurred under medical supervision.

MTF data for 2008 show that lifetime prevalence rates for amphetamine use without a doctor's orders were 6.8% for 8th graders, 9.0% for 10th graders, and 10.5% for 12th graders.

**Percent of Students Reporting Lifetime Non-Medical Use of Psychotherapeutics, 2008**

<b>Drug</b>	<b>8th Grade</b>	<b>10th Grade</b>	<b>12th Grade</b>
<b>Amphetamines</b>	6.8%	9.0%	10.5%
<b>Sedatives</b>	n/a	n/a	8.5
<b>Methaqualone</b>	n/a	n/a	0.8
<b>Tranquilizers</b>	3.9	6.8	8.9

Approximately 9.7% of 12th graders surveyed in 2008 reported annual (past year) use of Vicodin without a doctor's orders.

**Percent of Students Reporting Annual Non-Medical Use of Prescriptions, 2008**

<b>Drug</b>	<b>8th Grade</b>	<b>10th Grade</b>	<b>12th Grade</b>
<b>OxyContin</b>	2.1%	3.9%	4.7%
<b>Vicodin</b>	2.9	6.7	9.7
<b>Amphetamines</b>	4.5	6.4	6.8
<b>Ritalin</b>	1.6	2.9	3.4
<b>Sedatives</b>	n/a	n/a	5.8
<b>Methaqualone</b>	n/a	n/a	0.5
<b>Tranquilizers</b>	2.4	4.6	6.2

According to data from the Bureau of Justice Statistics, approximately 21.3% of State prisoners and 16.9% of Federal prisoners surveyed in 2004 indicated that they abused depressants at some point in their lives. For this report, depressants were defined to include barbiturates, tranquilizers and Quaalude.

### **Percent of State and Federal Prisoners Reporting Abuse of Depressants, 1997 and 2004**

	<b>State Prisoners</b>		<b>Federal Prisoners</b>	
	<b>1997</b>	<b>2004</b>	<b>1997</b>	<b>2004</b>
<b>At time of offense</b>	1.8%	2.0%	1.0%	1.4%
<b>In month before offense</b>	5.1	5.4	3.2	4.4
<b>Regularly*</b>	11.3	9.9	8.0	8.6
<b>Ever in lifetime</b>	23.7	21.3	16.5	16.9
* Used drugs at least once a week for at least a month.				

## **Health Effects**

The health risks associated with prescription drug abuse vary depending on the drug. For example, abuse of opioids, narcotics and pain relievers can slow or stop breathing. The abuse of depressants, including benzodiazepines and other tranquilizers, barbiturates and other sedatives, can result in seizure, respiratory depression and decreased heart rate. Stimulant abuse can lead to high body temperature, irregular heart rate, cardiovascular system failure and seizure. Inappropriate use of prescription drugs, including use without a prescription or medical supervision, or using in a manner other than exactly as prescribed, can lead to addiction in some cases.

The [Drug Abuse Warning Network \(DAWN\)](#) receives reports of emergency department (ED) episodes involving the non-medical use of legal drugs. These can involve the deliberate abuse of prescribed or legally obtained over-the-counter (OTC) medications or of pharmaceuticals diverted for abuse. Accidental overdoses or adverse reactions to OTC or prescription drugs taken as directed are not reportable to DAWN unless they are present in combination with an illicit drug.

During 2006, there were an estimated 741,425 ED visits that involved non-medical use of prescription or OTC pharmaceuticals or dietary supplements. CNS agents were involved in an estimated 373,138 ED visits and psychotherapeutic agents were involved in an estimated 323,999 visits.

## Number of ED Drug Mentions, Non-Medical Use of Selected Psychotherapeutics, 2006

Drug	Mentions
<b>Psychotherapeutic agents</b>	323,999
<b>Antidepressants</b>	79,682
<b>Antipsychotics</b>	44,733
<b>Antiolitics, sedatives, and hypnotics</b>	233,875
<b>CNS stimulants</b>	13,892
<b>CNS agents</b>	373,138
<b>Analgesics</b>	323,579
<b>Respiratory agents</b>	28,867
<b>Cardiovascular agents</b>	36,343

## Treatment

There is no single type of treatment which is appropriate for individuals addicted to prescription drugs. Treatment options must take into account the specific type of drug used along with the needs of the individual.

Several options are available for effectively treating addiction to prescription opioids and are drawn from research regarding the treatment of heroin addiction. Options include medications, such as naltrexone, methadone, and buprenorphine, as well as behavioral counseling.

Patients addicted to barbiturates or benzodiazepines should not attempt to stop taking the drugs on their own, as withdrawal from these drugs can be problematic, and in the case of certain CNS depressants, potentially life-threatening. Patients addicted to these medications should undergo medically supervised detoxification because the treatment dose must be gradually tapered. Inpatient or outpatient counseling can help the individual during this process. Cognitive-behavioral therapy has also successfully been used to help individuals adapt to the removal from benzodiazepines.

Treatment of addiction to prescription stimulants is often based on behavioral therapies that have proven effective in treating cocaine or methamphetamine addiction. Depending on the patient's situation, the first steps in treating prescription stimulant addiction may be tapering off the drug's dose and attempting to treat withdrawal symptoms. The detoxification process could then be followed by one of many behavioral therapies.

## *Retraining and Updating on Currently Abused Drugs*

According to the Treatment Episode Data Set (TEDS), opiates other than heroin (“other opiates/synthetics”) accounted for 5% of the total TEDS admissions in 2007 (90,516 admissions). These drugs include codeine, hydrocodone, hydromorphone, meperidine, morphine, opium, oxycodone, pentazocine, propoxyphene, tramadol, and any other drug with morphine-like effects.

### **Number of Admissions for Prescription-Type Substances, 2005-2007**

<b>Drug</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>
<b>Other opiates/synthetics</b>	70,268	80,131	90,516
<b>Non-Rx methadone</b>	4,070	4,706	5,094
<b>Other opiates/synthetics</b>	66,198	75,425	85,422
<b>Tranquilizers</b>	8,458	9,334	9,949
<b>Benzodiazepine</b>	7,928	8,846	9,491
<b>Other tranquilizers</b>	530	488	458
<b>Sedatives/hypnotics</b>	4,456	4,003	4,210
<b>Barbiturates</b>	1,380	1,046	1,013
<b>Other sedatives/hypnotics</b>	3,076	2,957	3,197
<b>Total all drugs</b>	1,885,507	1,893,425	1,817,577

## **Arrests and Sentencing**

There are a variety of responses to prescription fraud that can be used by police, pharmacists, and others to try to prevent and address this crime:

- improve pharmacists' screening of prescriptions and patients
- employ security measures (for example, use tamper-resistant prescription pads)
- prescribe drugs electronically
- create a database of customers
- use police crackdowns to target specific doctors/pharmacies

Some states have developed prescription monitoring programs, which can help prevent and detect the diversion and abuse of pharmaceutical controlled substances. Through the Bureau of Justice Assistance's [Harold Rogers Prescription Drug Monitoring Program](#), funds are available to develop and enhance such programs.

The illegal sale of pharmaceutical drugs using the Internet or e-mails advertising the sale of drugs can be reported to the following agencies:

- [Internet Crime Complaint Center](#)
- [DEA Diversion Control Program](#)
- [Food and Drug Administration \(FDA\)](#)

The DEA has also launched a toll-free international hotline (1-877-RxAbuse) to report the illegal sale and abuse of pharmaceutical drugs. Using the hotline, anonymous tips can be provided about the diversion of prescription drugs into the illegal market by individuals and suspicious Internet pharmacies.

During FY 2004, there were 5,556 Federal drug arrests for "other" drugs. This category of drugs includes barbiturates, hallucinogens, opiates other than heroin, and synthetic drugs.

According to the Drug Enforcement Administration (DEA), there were 237 Federal arrests involving Oxycodone during 2006. During 2005, there were 236 such arrests.

#### **Number of Federal Drug-Related Arrests, Pharmaceuticals, 2004-2006**

<b>Drug</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>
<b>Oxycodone</b>	137	236	237
<b>Hydrocodone</b>	111	186	242
<b>Hydromorphone</b>	28	11	12
<b>Benzodiazepines</b>	23	26	30
<b>Methylphenidate</b>	1	2	4

The Arrestee Drug Abuse Monitoring (ADAM) II program is designed to gather information on drug use and related matters from adult male offenders within 48 hours of arrest. ADAM II serves as a critical source of data for estimating trends in drug use in local areas, understanding the relationship between drugs and crime, and describing drug market activity in the adult male arrestee population in 10 U.S. sites during 2008. Approximately 10% of adult arrestees reported the use of opiate painkillers in four ADAM data collection sites (Indianapolis, IN; Minneapolis, MN; Portland, OR; and Sacramento, CA).

**Percent of Adult Arrestees Reporting Rx Use, Select Categories, in the Past 3 Days, by City, 2008**

	<b>Methadone</b>	<b>Tranquilizers</b>	<b>Opiate Painkillers</b>	<b>Anti-Depressants</b>
<b>Atlanta, GA</b>	n/a	n/a	3.6%	1.5%
<b>Charlotte, NC</b>	n/a	4.7	5.4	2.7
<b>Chicago, IL</b>	2.2	3.1	8.8	2.0
<b>Denver, CO</b>	1.3	2.1	6.8	1.9
<b>Indianapolis, IN</b>	0.7	9.4	10.7	4.9
<b>Minneapolis, MN</b>	1.5	3.4	10.1	7.7
<b>New York, NY</b>	5.9	4.3	3.1	1.6
<b>Portland, OR</b>	2.0	2.9	10.2	3.8
<b>Sacramento, CA</b>	0.5	3.4	10.9	4.5
<b>Washington, DC</b>	n/a	n/a	5.8	n/a

## **Production & Trafficking**

Individuals illegally obtain prescription drugs through a variety of means, such as:

- Doctor shopping or other prescription fraud
- Illegal online pharmacies
- Theft and burglary (from residences, pharmacies, etc.)
- Receiving/purchasing from friends or family
- Overprescribing (negligent or occasionally even intentional overprescribing by physicians or other prescribers)

A research study was conducted in 2007 on behalf of the National Center on Addiction and Substance Abuse (CASA) at Columbia University. A total of 210 hours was devoted to documenting the number of Internet sites dispensing selected prescription drugs. Using Internet search engines and e-mail advertisements, researchers discovered that of the 187 Internet sites found to be selling controlled prescription drugs during this period, 157 (84%) did not require any prescription. Of these sites, 52 (33%) clearly stated that no

prescription was needed, 83 (53%) offered an “online consultation” and 22 (14%) made no mention of a prescription.

Only 30 of the 187 Internet sites found during the 2007 study required a prescription. Of these, 17 (57%) only required patients to fax a prescription, 4 (13%) required that a patient mail the prescription and 9 (30%) indicated that a doctor would be contacted prior to dispensing the drug.

## Street Terms

<b>Term</b>	<b>Definition</b>
<b>80</b>	OxyContin pill
<b>Doctor shopping</b>	Going from doctor to doctor to fraudulently obtain prescriptions
<b>Murder 8</b>	Fentanyl
<b>Pharming</b>	Consuming a mixture of prescription substances
<b>Ritz and Ts</b>	Combination of Ritalin and Talwin injected

# Steroids Facts & Figures

## Overview

Anabolic steroids were developed in the late 1930s primarily to treat hypogonadism, a condition in which the testes do not produce sufficient testosterone for normal growth, development, and sexual functioning. The primary medical uses of these compounds are to treat delayed puberty, some types of impotence, and wasting of the body caused by HIV infection or other diseases.

During the 1930s, scientists discovered that anabolic steroids could facilitate the growth of skeletal muscle in laboratory animals. This led to abuse of these compounds by bodybuilders and weightlifters and then by athletes in other sports.

Anabolic steroids can be taken orally, injected intramuscularly, or rubbed on the skin when in the form of gels or creams. These drugs are often used in patterns called cycling, which involves taking multiple doses of steroids over a specific period of time, stopping for a period, and starting again. Users also frequently combine several different types of steroids in a process known as stacking. By doing this, users believe that the different steroids will interact to produce an effect on muscle size that is greater than the effects of using each drug individually.

Another mode of steroid use is "pyramiding." This is a process in which users slowly escalate steroid use (increasing the number of drugs used at one time and/or the dose and frequency of one or more steroids) reaching a peak amount at mid-cycle and gradually tapering the dose toward the end of the cycle.

## Extent of Use

Results from the 2008 Monitoring the Future Study, which surveys students in eighth, tenth, and twelfth grades, show that 1.4% of eighth graders, 1.4% of tenth graders, and 2.2% of twelfth graders reported using steroids at least once in their lifetimes.

### Percent of Students Reporting Steroid Drug Use, 2007-2008

	8th Grade		10th Grade		12th Grade	
	2007	2008	2007	2008	2007	2008
<b>Past month</b>	0.4%	0.5%	0.5%	0.5%	1.0%	1.0
<b>Past year</b>	0.8	0.9	1.1	0.9	1.4	1.5
<b>Lifetime</b>	1.5	1.4	1.8	1.4	2.2	2.2

Regarding the ease by which one can obtain steroids, 16.8% of eighth graders, 24.5% of tenth graders, and 35.2% of twelfth graders surveyed in 2008 reported that steroids were "fairly easy" or "very easy" to obtain. Furthermore, 60.8% of twelfth graders surveyed reported that using steroids was a "great risk."

The [Centers for Disease Control and Prevention \(CDC\)](#) also conducts a survey of high school students throughout the United States, the [Youth Risk Behavior Surveillance System \(YRBSS\)](#). Nearly 4% of all high school students surveyed by CDC in 2007 reported lifetime use of steroid pills/shots without a doctor's prescription.

Percent of Students Reporting Lifetime Steroid Use, 2003–2007

	<b>2003</b>	<b>2005</b>	<b>2007</b>
<b>9th grade</b>	7.1%	4.8%	4.8%
<b>10th grade</b>	6.1	3.9	3.7
<b>11th grade</b>	5.6	3.7	3.1
<b>12th grade</b>	4.9	3.3	3.8
<b>Total</b>	6.1	4.0	3.9

Approximately 0.6% of college students and 1.7% of young adults (ages 19–28) surveyed in 2007 reported lifetime use of steroids.

Percent of College Students/Young Adults Reporting Steroid Use, 2006–2007

	<b>College Students</b>		<b>Young Adults</b>	
	<b>2006</b>	<b>2007</b>	<b>2006</b>	<b>2007</b>
<b>Past month</b>	<0.05%	0.1%	0.1%	0.4%
<b>Past year</b>	0.8	0.6	0.3	0.7
<b>Lifetime</b>	1.9	0.6	1.8	1.7

## Health Effects

Anabolic steroid abuse has been associated with a wide range of adverse side effects ranging from some that are physically unattractive, such as acne and breast development in men, to others that are life threatening. Most of the effects are reversible if the abuser stops taking the drug, but some can be permanent. In addition to the physical effects, anabolic steroids can also cause increased irritability and aggression. Some of the health consequences that can occur in both males and females include liver cancer, heart attacks, and elevated cholesterol levels. In addition to this, steroid use among adolescents may prematurely stop the lengthening of bones resulting in stunted growth.

## *Retraining and Updating on Currently Abused Drugs*

People who inject steroids also run the risk of contracting or transmitting hepatitis or HIV. Some steroid abusers experience withdrawal symptoms when they stop taking the drug. These withdrawal symptoms include mood swings, fatigue, restlessness, loss of appetite, insomnia, reduced sex drive, and depression. This depression can lead to suicide attempts, and if left untreated, can persist for a year or more after the abuser stops taking the drugs.

## **Production & Trafficking**

Illicit anabolic steroids are often sold at gyms, competitions, and through mail operations after being smuggled into this country. The most common sources for obtaining steroids for illegal use are Internet purchases and smuggling them into the U.S. from other countries such as Mexico and European countries. These countries do not require a prescription for the purchase of steroids, making it easier to smuggle them. In addition to this, steroids are also illegally diverted from U.S. pharmacies or synthesized in clandestine laboratories.

## **Legislation**

Concerns over a growing illicit market and prevalence of abuse combined with the possibility of harmful long-term effects of steroid use led Congress to place anabolic steroids into Schedule III of the Controlled Substances Act (CSA) in 1991. It is therefore illegal to possess or sell anabolic steroids without a valid prescription. Some States have also implemented additional fines and penalties for illegal use of anabolic steroids. The International Olympic Committee, National Collegiate Athletic Association and many professional sports leagues (including the Major League Baseball, National Basketball Association, National Football League, and National Hockey League), have banned the use of steroids by athletes due to their potentially dangerous side effects and because they give the user an unfair advantage.

## **Street Terms**

<b>Street/Slang Terms for Steroids</b>
Arnolds
Gym Candy
Juice
Pumpers
Stackers
Weight Trainers

# Club Drugs Facts & Figures

## Overview

Club drugs are a pharmacologically heterogeneous group of psychoactive compounds that tend to be abused by teens and young adults at a nightclub, bar, rave, or trance scene. Gamma hydroxybutyrate (GHB), Rohypnol, ketamine, MDMA (ecstasy) and methamphetamine are some of the drugs in this group.

MDMA is a synthetic, psychoactive drug chemically similar to the stimulant methamphetamine and the hallucinogen mescaline.

The tasteless and odorless depressants Rohypnol and GHB are often used in the commission of sexual assaults due to their ability to sedate and intoxicate unsuspecting victims. Rohypnol, a sedative/tranquilizer, is legally available for prescription in over 50 countries outside of the U.S. and is widely available in Mexico, Colombia, and Europe.<sup>3</sup> Although usually taken orally in pill form, reports have shown that some users grind Rohypnol into a powder and snort the drug.

GHB, available in an odorless, colorless liquid form or as a white powder material, is taken orally, and is frequently combined with alcohol. In addition to being used to incapacitate individuals for the commission of sexual assault/rape, GHB is also sometimes used by body builders for its alleged anabolic effects.

The abuse of ketamine, a tranquilizer most often used on animals, became popular in the 1980s, when it was realized that large doses cause reactions similar to those associated with the use of PCP, such as dream-like states and hallucinations. The liquid form of ketamine can be injected, consumed in drinks, or added to smokable materials. The powder form can also be added to drinks, smoked, or dissolved and then injected. In some cases, ketamine is being injected intramuscularly.

## Extent of Use

According to the 2008 National Survey on Drug Use and Health (NSDUH), an estimated 12.9 million Americans aged 12 or older tried ecstasy at least once in their lifetimes, representing 5.2% of the U.S. population in that age group. The estimated number of past year ecstasy users in 2008 was approximately 2.1 million (0.9% of the population aged 12 or older) and the number of past month ecstasy users was 555,000 (0.2%).

Among 12–17 year olds surveyed as part of the 2008 NSDUH, 0.4% reported past month ecstasy use. Additional NSDUH results indicate that 0.9% of 18–25 year olds and 0.1% of those aged 26 or older reported past month use of ecstasy.

## Retraining and Updating on Currently Abused Drugs

Results of the 2008 [Monitoring the Future](#) survey indicate that 2.4% of eighth graders, 4.3% of tenth graders, and 6.2% of twelfth graders reported lifetime use of MDMA. In 2007, these percentages were 2.3%, 5.2%, and 6.5%, respectively.

### Percent of Students Reporting MDMA Use, 2007–2008

	8th Grade		10th Grade		12th Grade	
	2007	2008	2007	2008	2007	2008
<b>Past month</b>	0.6%	0.6%	1.2%	1.1%	1.6%	1.8%
<b>Past year</b>	1.5	1.5	3.5	2.9	4.5	4.3
<b>Lifetime</b>	2.3	2.4	5.2	4.3	6.5	6.2

Approximately 28.6% of eighth graders, 43.2% of tenth graders, and 57.0% of twelfth graders surveyed in 2008 reported that trying MDMA once or twice was a "great risk."

### Percent of Students Reporting Risk of Using MDMA, 2008

<b>Say "great risk" to:</b>	<b>8th Grade</b>	<b>10th Grade</b>	<b>12th Grade</b>
<b>Try MDMA once/twice</b>	28.6%	43.2%	57.0%
<b>Use MDMA occasionally</b>	46.8	66.4	n/a

Approximately 0.7% of eighth graders and 0.9% of tenth graders surveyed in 2008 reported lifetime use of Rohypnol (twelfth grade data are not available for Rohypnol).

### Percent of Students Reporting Rohypnol Use, 2007–2008

	8th Grade		10th Grade		12th Grade	
	2007	2008	2007	2008	2007	2008
<b>Past month</b>	0.3%	0.1%	0.2%	0.2%	n/a	n/a
<b>Past year</b>	0.7	0.5	0.7	0.4	1.0	1.3
<b>Lifetime</b>	1.0	0.7	1.3	0.9	n/a	n/a

Additional Monitoring the Future results for 2008 indicate that 1.1% of eighth graders, 0.5% of tenth graders, and 1.2% of twelfth graders reported past year use of GHB. Data

showing past month and lifetime use of GHB and ketamine were not captured in the study.

**Percent of Students Reporting Past Year GHB/Ketamine Use, 2007–2008**

	8th Grade		10th Grade		12th Grade	
	2007	2008	2007	2008	2007	2008
<b>GHB</b>	0.7%	1.1%	0.6%	0.5%	0.9%	1.2%
<b>Ketamine</b>	1.0	1.2	0.8	1.0	1.3	1.5

The [Youth Risk Behavior Surveillance \(YRBS\)](#) study by the [Centers for Disease Control and Prevention \(CDC\)](#) surveys high school students on several risk factors including drug and alcohol use. Results of the 2007 survey indicate that 5.8% of high school students reported using ecstasy at some point in their lifetimes. During 2005, 6.3% of high school students reported lifetime use of ecstasy.

**Percent of Students Reporting Lifetime MDMA Use, 2003–2007**

	2003	2005	2007
<b>9th grade</b>	10.9%	5.8%	4.6%
<b>10th grade</b>	9.0	6.0	5.3
<b>11th grade</b>	11.4	6.5	5.6
<b>12th grade</b>	12.8	6.7	7.6
<b>Total</b>	11.1	6.3	5.8

**Health Effects**

In high doses, MDMA can interfere with the body's ability to regulate temperature, sometimes leading to a sharp increase in body temperature (hyperthermia), resulting in liver, kidney, and cardiovascular system failure, and death. MDMA users also risk increases in heart rate and blood pressure, and symptoms such as muscle tension, involuntary teeth clenching, nausea, blurred vision, faintness, and chills or sweating. Psychological effects of MDMA use can include confusion, depression, sleep problems, drug craving, and severe anxiety. Additionally, these problems can occur during as well as sometimes days or weeks after using the drug.

Rohypnol, GHB, and ketamine are all central nervous system depressants. Lower doses of Rohypnol can cause muscle relaxation and can produce general sedative and hypnotic effects. In higher doses, Rohypnol causes a loss of muscle control, loss of consciousness,

## *Retraining and Updating on Currently Abused Drugs*

and partial amnesia. When combined with alcohol, the toxic effects of Rohypnol can be aggravated.

The sedative effects of GHB may result in sleep, coma, or death. Other effects of GHB use can include seizures, along with nausea and breathing difficulties when combined with alcohol. GHB has increasingly become involved in poisonings, overdoses, date rapes, and fatalities.

The use of ketamine produces effects similar to PCP and LSD, causing distorted perceptions of sight and sound and making the user feel disconnected and out of control. The overt hallucinatory effects of ketamine are relatively short-acting, lasting approximately one hour or less. However, the user's senses, judgement, and coordination may be affected for up to 24 hours after the initial use of the drug. Use of this drug can also bring about respiratory depression, heart rate abnormalities, and a withdrawal syndrome.

Of an estimated 113 million emergency department (ED) visits in the U.S. during 2006, the Drug Abuse Warning Network (DAWN) estimates that 1,742,887 were drug-related. DAWN data indicate that MDMA was involved in 16,749 ED visits; GHB was involved in 1,084 visits; and ketamine was involved in 270 visits.

## **Arrests & Sentencing**

During 2006, Federal authorities made 690 arrests related to MDMA. This is down from: 764 in 2005; 937 in 2004; 1,023 in 2003; and 1,506 in 2002. There were also 2 Federal arrests for GHB in the U.S. during 2006, which is down from 19 in 2005 and 20 in 2004.

In response to the Ecstasy Anti-Proliferation Act of 2000, the [U.S. Sentencing Commission](#) increased the guideline sentence for trafficking MDMA. The new amendment, enacted on November 1, 2001, increases the sentence for trafficking 800 MDMA pills by 300%, from 15 months to 5 years. It also increases the penalty for trafficking 8,000 pills by nearly 200%, from 41 months to 10 years.

The Arrestee Drug Abuse Monitoring (ADAM) II program is designed to gather information on drug use and related matters from adult male offenders within 48 hours of arrest. ADAM II serves as a critical source of data for estimating trends in drug use in local areas, understanding the relationship between drugs and crime, and describing drug market activity in the adult male arrestee population in 10 U.S. sites during 2008. Arrestees in Washington, DC reported a significantly higher rate of ecstasy/MDMA use in the past 3 days compared to arrestees in the 9 other ADAM II sites.

**Percent of Adult Arrestees Reporting Ecstasy/MDMA Use in the Past 3 Days, by City, 2008**

	<b>Ecstasy / MDMA Use</b>
<b>Atlanta, GA</b>	3.3%
<b>Charlotte, NC</b>	3.1
<b>Chicago, IL</b>	0.4
<b>Denver, CO</b>	0.8
<b>Indianapolis, IN</b>	0.9
<b>Minneapolis, MN</b>	2.2
<b>New York, NY</b>	1.8
<b>Portland, OR</b>	1.1
<b>Sacramento, CA</b>	1.8
<b>Washington, DC</b>	36.7%

## **Production & Trafficking**

MDMA production by Asian drug trafficking organizations (DTOs) in Canada has increased significantly since 2004, fueling MDMA distribution by Canada-based Asian DTOs in U.S. drug markets. According to the Royal Canadian Mounted Police (RCMP), while the number of MDMA lab seizures have remained relatively stable since 2004, the capacity of the labs has increased greatly.

Domestic production of MDMA is limited and is expected to remain at low levels in the near future. Since 2000, only 85 domestic MDMA laboratories have been seized. National seizure data show that 53% of the MDMA labs seized in the U.S. since 2000 were small operations not capable of producing more than 2 ounces per production cycle.

GHB trafficking has declined to a low level since its apparent peak during 2000. National seizure data reveal that domestic production of GHB is limited, with only 86 laboratories seized in the U.S. since 2000.

## **Legislation**

MDMA, GHB, Rohypnol, and ketamine have all been scheduled under the Controlled Substance Act (CSA), Title II of the Comprehensive Drug Abuse Prevention and Control Act of 1970. The Schedules of the club drugs are as follows:

- MDMA—Schedule I as of 1998
- GHB—Schedule I as of 2000

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- Rohypnol—Schedule IV as of 1984
- Ketamine—Schedule III as of 1999

## **Street Terms**

<b>GHB</b>	<b>Ketamine</b>	<b>MDMA</b>	<b>Rohypnol</b>
Goop	Cat valium	Disco biscuit	Forget me drug
Grievous bodily harm	K	Hug drug	Mexican valium
Max	Jet	Go	Roaches
Soap	Super acid	XTC	Roofies

# Cocaine Facts & Figures

## Overview

Pure cocaine was first used in the 1880s in eye, nose, and throat surgeries as an anesthetic and for its ability to constrict blood vessels and limit bleeding. However, many of its therapeutic applications are now obsolete because of the development of safer drugs.

Cocaine is the most potent stimulant of natural origin. This substance can be snorted, smoked, or injected. When snorted, cocaine powder is inhaled through the nose where it is absorbed into the bloodstream through the nasal tissues. When injected, the user uses a needle to release the drug directly into the bloodstream. Smoking involves inhaling cocaine vapor or smoke into the lungs where absorption into the bloodstream is as rapid as by injection. Each of these methods of administration pose great risks to the user.

Crack is cocaine base that has not been neutralized by an acid to make the hydrochloride salt. This form of cocaine comes in a rock crystal that is heated to produce vapors, which are smoked. The term “crack” refers to the crackling sound produced by the rock as it is heated.

## Extent of Use

According to the 2008 National Survey on Drug Use and Health, approximately 36.8 million Americans aged 12 and older had tried cocaine at least once in their lifetimes, representing 14.7% of the population aged 12 and older. Approximately 5.3 million (2.1%) has used cocaine in the past year and 1.9 million (0.7%) had used cocaine within the past month.

In 2008, there were 722,000 persons aged 12 or older who had used cocaine for the first time within the past 12 months; this averages to approximately 2,000 initiates per day. This estimate was significantly lower than the number in 2007 (906,000). The annual number of cocaine initiates declined from 1.0 million in 2002 to 722,000 in 2008.

Among students surveyed as part of the 2008 [Monitoring the Future](#) study, 3.0% of eighth graders, 4.5% of tenth graders, and 7.2% of twelfth graders reported lifetime use of cocaine. In 2007, these percentages were 3.1%, 5.3%, and 7.8%, respectively.

## *Retraining and Updating on Currently Abused Drugs*

### **Percent of Students Reporting Cocaine Use, 2007–2008**

	<b>8th Grade</b>		<b>10th Grade</b>		<b>12th Grade</b>	
	<b>2007</b>	<b>2008</b>	<b>2007</b>	<b>2008</b>	<b>2007</b>	<b>2008</b>
<b>Past month</b>	0.9%	0.8%	1.3%	1.2%	2.0%	1.9%
<b>Past year</b>	2.0	1.8	3.4	3.0	5.2	4.4
<b>Lifetime</b>	3.1	3.0	5.3	4.5	7.8	7.2

Approximately 62.7% of eighth graders, 71.1% of tenth graders, and 61.6% of twelfth graders surveyed in 2008 reported that taking powder cocaine occasionally was a “great risk.” Additionally, approximately 82.5% of 12th graders surveyed in 2008 reported that using powder cocaine regularly was a “great risk.”

### **Percent of Students Reporting Risk of Using Cocaine, 2008**

<b>Say "great risk" to:</b>	<b>8th Grade</b>	<b>10th Grade</b>	<b>12th Grade</b>
<b>Try crack once/twice</b>	47.1%	56.5%	47.5%
<b>Take crack occasionally</b>	67.9	76.5	65.2
<b>Try powder cocaine once/twice</b>	42.7	49.8	45.1
<b>Take powder cocaine occasionally</b>	62.7	71.1	61.6

Regarding the ease by which one can obtain powder cocaine, 19.5% of eighth graders, 28.2% of tenth graders, and 38.9% of twelfth graders surveyed in 2008 reported that powder cocaine was "fairly easy" or "very easy" to obtain.

The [Centers for Disease Control and Prevention \(CDC\)](#) also conducts a survey of high school students throughout the United States, the [Youth Risk Behavior Surveillance System \(YRBSS\)](#). Among students surveyed in 2007, 7.2% reported using some form of cocaine at least one time during their life. 3.3% reported being current users of cocaine, meaning that they had used cocaine at least once during the past month.

Percent of Students Reporting Cocaine Use, 2003–2007

	<b>2003</b>	<b>2005</b>	<b>2007</b>
<b>Current use</b>	4.1%	3.4%	3.3%
<b>Lifetime use</b>	8.7	7.6	7.2

Approximately 8.5% of college students and 14.7% of young adults (ages 19–28) surveyed in 2007 reported lifetime use of cocaine.

Percent of College Students/Young Adults Reporting Cocaine Use, 2006–2007

	<b>College Students</b>		<b>Young Adults</b>	
	<b>2006</b>	<b>2007</b>	<b>2006</b>	<b>2007</b>
<b>Past month</b>	1.8%	1.7%	2.3%	2.1%
<b>Past year</b>	5.1	5.4	6.6	6.2
<b>Lifetime</b>	7.7	8.5	15.2	14.7

According to data from the Bureau of Justice Statistics, approximately 46.8% of State prisoners and 43.3% of Federal prisoners surveyed in 2004 indicated that they used cocaine/crack at some point in their lives.

Percent of Prisoners Reporting Cocaine/Crack Use, 1997 and 2004

	<b>State Prisoners</b>		<b>Federal Prisoners</b>	
	<b>1997</b>	<b>2004</b>	<b>1997</b>	<b>2004</b>
<b>At time of offense</b>	14.8%	11.8%	9.3%	7.4%
<b>In month before offense</b>	25.0	21.4	20.0	18.0
<b>Regularly*</b>	33.6	30.0	28.2	27.5
<b>Ever in lifetime</b>	49.2	46.8	44.8	43.3

\* Used drugs at least once a week for at least a month.

## **Health Effects**

Cocaine is a strong central nervous system stimulant. Physical effects of cocaine use include constricted blood vessels and increased temperature, heart rate, and blood pressure. Users may also experience feelings of restlessness, irritability, and anxiety.

Evidence suggests that users who smoke or inject cocaine may be at even greater risk of causing harm to themselves than those who snort the substance. For example, cocaine smokers also suffer from acute respiratory problems including coughing, shortness of breath, and severe chest pains with lung trauma and bleeding. A user who injects cocaine is at risk of transmitting or acquiring diseases if needles or other injection equipment are shared.

A tolerance to the cocaine high may be developed and many addicts report that they fail to achieve as much pleasure as they did from their first cocaine 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.

The duration of cocaine's immediate euphoric effects depends upon the route of administration. The faster the absorption, the more intense the high. Also, the faster the absorption, the shorter the duration of action. The high from snorting is relatively slow in onset, and may last 15 to 30 minutes, while that from smoking may last 5 to 10 minutes.

Cocaine continues to be the most frequently mentioned illicit substance reported to the Drug Abuse Warning Network (DAWN) by hospital emergency departments (ED) nationwide. During 2002, it was mentioned 199,198 times and was present in 30% of the ED drug episodes during the year. While cocaine ED mentions were statistically unchanged from 2001 to 2002, they have increased 47% since 1995 when there were 135,711 mentions.

Of an estimated 113 million emergency department (ED) visits in the U.S. during 2006, the [Drug Abuse Warning Network \(DAWN\)](#) estimates that 1,742,887 were drug-related. DAWN data indicate that cocaine was involved in 548,608 ED visits.

## **Treatment**

From 1997 to 2007, the number of admissions to treatment for cocaine decreased from 236,770 in 1997 to 234,772 in 2007. Cocaine admissions represented 14.7% of the total drug/alcohol admissions to treatment during 1997 and 12.9% of the treatment admissions in 2007.

Broken down by type of cocaine, the number of treatment admissions for non-smoked cocaine increased from 61,870 in 1997 to 66,858 in 2007 and admissions for smoked cocaine decreased from 174,900 in 1997 to 167,914 in 2007. The average age of those

admitted to treatment for cocaine in 2007 was 39 years for smoked cocaine, compared with 34 years for non-smoked cocaine admissions.

## Arrests & Sentencing

During FY 2004, cocaine was the primary drug involved in Federal drug arrests. There were 12,166 Federal drug arrests for cocaine in FY 2004. The Drug Enforcement Administration (DEA) made 7,082 arrests for powder cocaine and 3,921 arrests for crack cocaine during FY 2004.

During FY 2008, there were 5,889 Federal offenders sentenced for powder cocaine-related charges and 6,168 sentenced for crack cocaine charges in U.S. Courts. Approximately 98.0% of the powder cocaine cases and 95.9% of the crack cocaine cases involved trafficking. Approximately 0.5% of both powder and crack cocaine cases involved simple possession.

The Arrestee Drug Abuse Monitoring (ADAM) II program is designed to gather information on drug use and related matters from adult male offenders within 48 hours of arrest. ADAM II serves as a critical source of data for estimating trends in drug use in local areas, understanding the relationship between drugs and crime, and describing drug market activity in the adult male arrestee population in 10 U.S. sites during 2008. ADAM II self-report data indicate that crack cocaine use is higher in most sites when compared to powder cocaine use.

Percent of Adult Arrestees Reporting Cocaine Use, by City, 2008

	Powder Cocaine		Crack Cocaine	
	Past 30 Day Use	Past Year Use	Past 30 Day Use	Past Year Use
<b>Atlanta, GA</b>	8.2%	13.1%	23.4%	25.0%
<b>Charlotte, NC</b>	10.1	16.3	13.9	18.2
<b>Chicago, IL</b>	2.9	7.2	23.0	24.2
<b>Denver, CO</b>	10.4	17.6	16.7	20.3
<b>Indianapolis, IN</b>	3.2	9.0	10.6	14.2
<b>Minneapolis, MN</b>	6.0	10.2	14.7	15.5
<b>New York, NY</b>	7.2	11.1	7.2	9.1
<b>Portland, OR</b>	8.3	14.2	10.8	16.2
<b>Sacramento, CA</b>	4.7	7.4	8.9	10.7
<b>Washington, DC</b>	3.1	4.1	17.8	17.5

## **Production & Trafficking**

Cocaine is extracted from the leaves of the coca plant, which is indigenous to the Andean highlands of South America. Much of the cocaine available in the United States is transported from South American nations, particularly Colombia, through the Mexico-Central America Corridor. Despite increasingly aggressive coca eradication efforts, U.S. Government estimates of coca cultivation in South America indicate that cocaine producers potentially produced 970 metric tons of pure cocaine in 2006, a 7% increase from 910 metric tons in 2005 and the highest level since 2002.

During the spring of 2007 Federal, state and local law enforcement agencies in several U.S. drug markets reported that cocaine availability decreased and that cocaine shortages were apparent in their jurisdictions. Cocaine shortages were most evident in the Great Lakes, New England, and Mid-Atlantic Regions of the country, but some major drug markets outside these areas also reported indications of decreased cocaine availability. These markets include Atlanta, Los Angeles, Phoenix, and San Francisco.

Analysis of cocaine purchases submitted for forensic examination by the DEA corroborates intelligence regarding the decline in domestic cocaine availability. From January through June 2007, the average price per pure gram of all domestic cocaine purchases increased 24%, from \$95.89 to \$118.70, while purity fell 11%, from 67% to 59%.

Epidemiologic sources indicate that prices for powder cocaine range from \$20–\$30 per gram in New York to \$100 in Bangor (Maine), Cincinnati and Minneapolis and can cost as much as \$200 per gram in Baltimore and Honolulu. Crack cocaine tends to have a low end street price \$10 in such cities as Chicago, Baltimore, Boston and San Diego.

According to 2006 Federal-wide Drug Seizure System (FDSS) data, Federal agencies seized 150,738.7 kilograms of cocaine. FDSS contains information about drug seizures made within the jurisdiction of the United States by the DEA, Federal Bureau of Investigation, U.S. Customs Service, U.S. Border Patrol, and U.S. Coast Guard.

## **Legislation**

Cocaine was first Federally-regulated in December 1914 with the passage of the Harrison Act. This Act banned non-medical use of cocaine; prohibited its importation; imposed the same criminal penalties for cocaine users as for opium, morphine, and heroin users; and required a strict accounting of medical prescriptions for cocaine. As a result of the Harrison Act and the emergence of cheaper, legal substances such as amphetamines, cocaine became scarce in the U.S. However, use began to rise again in the 1960s, prompting Congress to classify it as a Schedule II substance in 1970. Schedule II substances have a high potential for abuse, a currently accepted medical use in treatment in the United States with severe restrictions, and may lead to severe psychological or

physical dependence Cocaine can currently be administered by a doctor for legitimate medical uses, such as a local anesthetic for some eye, ear, and throat surgeries.

## Street Terms

Common Terms Associated with Cocaine

<b>Term</b>	<b>Definition</b>	<b>Term</b>	<b>Definition</b>
<b>Blow</b>	Cocaine	<b>Bingers</b>	Crack addicts
<b>Horn</b>	To inhale cocaine	<b>Oolies</b>	Marijuana laced with crack
<b>Nose candy</b>	Cocaine	<b>Tornado</b>	Crack
<b>Snowball</b>	Cocaine and heroin	<b>Wicky stick</b>	PCP, marijuana, and crack

# Crack Facts & Figures

## Overview

Pure cocaine was first used in the 1880s as a local anesthetic in eye, nose, and throat surgeries because of its ability to provide anesthesia as well as to constrict blood vessels and limit bleeding. Many of its therapeutic applications are now obsolete due to the development of safer drugs.

Approximately 100 years after cocaine entered into use, a new variation of the substance emerged. This substance, crack, became enormously popular in the mid-1980s due in part to its almost immediate high and the fact that it is inexpensive to produce and buy.

Cocaine is a powerfully addictive stimulant drug. The powdered, hydrochloride salt form of the drug can be snorted or dissolved in water and injected. Crack is cocaine that has not been neutralized by an acid to make the hydrochloride salt. This form of cocaine comes in a rock crystal that can be heated and its vapors smoked. The term "crack" comes from the crackling sound made when it is heated.

## Extent of Use

According to the 2008 National Survey on Drug Use and Health (NSDUH), approximately 8.4 million Americans aged 12 or older reported trying crack cocaine at least once during their lifetimes, representing 3.4% of the population aged 12 or older. Additional 2008 NSDUH data indicate that approximately 1.1 million (0.4%) reported past year crack cocaine use and 359,000 (0.1%) reported past month crack cocaine use.

Results of the 2008 [Monitoring the Future](#) survey indicate that 2.1% of eighth graders, 2.3% of tenth graders, and 3.2% of twelfth graders reported lifetime use of crack cocaine. In 2006, these percentages were 2.3%, 2.2%, and 3.5%, respectively.

### Percent of Students Reporting Crack Cocaine Use, 2007–2008

	8th Grade		10th Grade		12th Grade	
	2007	2008	2007	2008	2007	2008
<b>Past month</b>	0.6%	0.5%	0.7%	0.5%	0.9%	0.8%
<b>Past year</b>	1.3	1.1	1.3	1.3	1.9	1.6
<b>Lifetime</b>	2.1	2.0	2.3	2.0	3.2	2.8

Approximately 67.9% of eighth graders, 76.5% of tenth graders, and 65.2% of twelfth graders surveyed in 2008 reported that taking crack cocaine occasionally was a "great risk."

### Percent of Students Reporting Risk of Using Crack Cocaine, 2008

Say "great risk" to:	8th Grade	10th Grade	12th Grade
Try crack once/twice	47.1%	56.5%	47.5%
Take crack occasionally	67.9	76.5	65.2

Approximately 1.3% of college students and 3.9% of young adults (ages 19-28) surveyed in 2007 reported lifetime use of crack cocaine.

### Percent of College Students/Young Adults Reporting Crack Use, 2006–2007

	College Students		Young Adults	
	2006	2007	2006	2007
Past month	<0.05%	0.1%	0.3%	0.3%
Past year	1.0	0.6	1.1	1.0
Lifetime	2.3	1.3	4.4	3.9

## Health Effects

Cocaine is a strong central nervous system stimulant. Physical effects of cocaine use, including crack use, include constricted blood vessels and increased temperature, heart rate, and blood pressure. Users may also experience feelings of restlessness, irritability, and anxiety.

In addition to the usual risks associated with cocaine use, crack users may experience acute respiratory problems, including coughing, shortness of breath, lung trauma, and bleeding. Crack cocaine smoking also can cause aggressive and paranoid behavior.

The duration of cocaine's immediate euphoric effects depends upon the route of administration. The faster the absorption, the more intense the high. Also, the faster the absorption, the shorter the duration of action. The high from snorting is relatively slow in onset, and may last 15 to 30 minutes, while that from smoking may last 5 to 10 minutes. Smoking crack delivers large quantities of the drug to the lungs, producing effects comparable to intravenous injection. These effects are felt almost immediately after smoking, are very intense, but do not last long.

## *Retraining and Updating on Currently Abused Drugs*

Cocaine is a powerfully addictive drug. A tolerance to the cocaine high may be developed and many addicts report that they fail to achieve as much pleasure as they did from their first cocaine exposure.

Of an estimated 113 million emergency department (ED) visits in the U.S. during 2006, the [Drug Abuse Warning Network \(DAWN\)](#) estimates that 1,742,887 were drug-related. DAWN data indicate that marijuana was involved in 290,563 ED visits.

## **Treatment**

From 1997 to 2007, the number of admissions to treatment in which crack was the primary drug of abuse decreased from 174,900 in 1997 to 167,914 in 2007. The average age of those admitted to treatment for crack cocaine during 2007 was 39 years.

## **Arrests & Sentencing**

During FY 2004, cocaine was the primary drug involved in Federal drug arrests. There were 12,166 Federal drug arrests for cocaine in FY 2004. The DEA made 7,082 arrests for powder cocaine and 3,921 arrests for crack cocaine during FY 2004.

During FY 2008, there were 6,168 Federal defendants sentenced for crack cocaine-related charges in U.S. Courts. Approximately 95.9% of these cases involved crack cocaine trafficking. Approximately 0.5% of the crack cocaine cases involved simple possession.

The Arrestee Drug Abuse Monitoring (ADAM) II program is designed to gather information on drug use and related matters from adult male offenders within 48 hours of arrest. ADAM II serves as a critical source of data for estimating trends in drug use in local areas, understanding the relationship between drugs and crime, and describing drug market activity in the adult male arrestee population in 10 U.S. sites during 2008. ADAM II self-report data indicate that crack cocaine use is highest in Atlanta and Chicago where approximately 23% of arrestees admit prior 30-day use and lowest in New York where approximately 7% of arrestees admit to prior 30-day use.

Percent of Adult Arrestees Reporting Cocaine Use, by City, 2008

	<b>Past 30 Day Use</b>	<b>Past Year Use</b>
<b>Atlanta, GA</b>	23.4%	25.0%
<b>Charlotte, NC</b>	13.9	18.2
<b>Chicago, IL</b>	23.0	24.2
<b>Denver, CO</b>	16.7	20.3
<b>Indianapolis, IN</b>	10.6	14.2
<b>Minneapolis, MN</b>	14.7	15.5
<b>New York, NY</b>	7.2	9.1
<b>Portland, OR</b>	10.8	16.2
<b>Sacramento, CA</b>	8.9	10.7
<b>Washington, DC</b>	17.8	17.5

## **Production & Trafficking**

Crack is cocaine that has been processed from cocaine hydrochloride to a free base for smoking. Crack cocaine is processed with ammonia or sodium bicarbonate (baking soda) and water. It is then heated to remove the hydrochloride producing a form of cocaine that can be smoked.

## **Legislation**

Cocaine (all forms) was first Federally-regulated in December 1914 with the passage of the Harrison Act. This Act banned the non-medical use of cocaine; prohibited its importation; imposed the same criminal penalties for cocaine users as for opium, morphine, and heroin users; and required a strict accounting of medical prescriptions for cocaine. As a result of the Harrison Act and the emergence of cheaper, legal substances such as amphetamines, cocaine became scarce in the U.S. However, use began to rise again in the 1960s, prompting Congress to classify it as a Schedule II substance in 1970.

Schedule II substances have a high potential for abuse, a currently accepted medical use in treatment in the United States with severe restrictions, and may lead to severe psychological or physical dependence. While cocaine can currently be administered by a doctor for legitimate medical uses, such as a local anesthetic for some eye, ear, and throat surgeries, there are currently no medical uses for crack cocaine.

## **Street Terms**

Common Terms Associated with Crack

<b>Term</b>	<b>Definition</b>	<b>Term</b>	<b>Definition</b>
<b>Bingers</b>	Crack addicts	<b>Oolies</b>	Marijuana laced with crack
<b>Geeker</b>	Crack user	<b>Rooster</b>	Crack
<b>Jelly beans</b>	Crack	<b>Tornado</b>	Crack
<b>Moonrock</b>	Crack mixed with heroin	<b>Wicky stick</b>	PCP, marijuana, and crack

## Appendix A: Post Test and Evaluation for the Course Title

**Directions:** To receive credits for this course, you are required to take a post test and receive a passing score. We have set a minimum standard of 80% as the passing score to assure the highest standard of knowledge retention and understanding. The test is comprised of multiple choice and/or true/false questions that will investigate your knowledge and understanding of the materials found in this CEU Matrix – The Institute for Addiction and Criminal Justice distance learning course.

After you complete your reading and review of this material, you will need to answer each of the test questions. Then, submit your test to us for processing. This can be done in any one of the following manners:

1. *Submit your test via the Internet.* All of our tests are posted electronically, allowing immediate test results and quicker processing. First, you may want to answer your post test questions using the answer sheet found at the end of this appendix. Then, return to your browser and go to the Student Center located at:

<http://www.ceumatrix.com/studentcenter>

Once there, log in as a Returning Customer using your Email Address and Password. Then click on 'Take Exam' and you will be presented with the electronic exam.

To take the exam, simply select from the choices of "a" through "e" for each multiple choice question. For true/false questions, select either "a" for true, or "b" for false. Once you are done, simply click on the submit button at the bottom of the page. Your exam will be graded and you will receive your results immediately. If your score is 80% or greater, you will receive a link to the course evaluation. , which is the final step in the process. Once you submit the evaluation, you will receive a link to the Certificate of Completion. This is the final step in the process, and you may save and / or print your Certificate of Completion.

If, however, you do not achieve a passing score of at least 80%, you will need to review the course material and return to the Student Center to resubmit your answers.

**OR**

2. *Submit your test by mail using the answer sheet found at the end of this package.* First, complete the cover page that will identify the course and provide us with the information that will be included in your Certificate of Completion. Then, answer each of the questions by selecting the best response available and marking your answers on the sheet. The final step is to complete the course evaluation (most certifying bodies require a course evaluation before certificates of completion can be issued). Once completed, mail the information, answer and evaluation sheets to this address:

**CEU Matrix - The Institute for Addiction and Criminal Justice Studies  
P.O. Box 2000  
Georgetown, TX 78627**

Once we receive your exam and evaluation sheets, we will grade your test and notify you of the results.

If successful, you will be able to access your Certificate of Completion and print it. Access your browser and go to the Student Center located at:

<http://www.ceumatrix.com/studentcenter>

Once there, log in as a Returning Customer using your Email Address and Password. Then click on 'Certificate' and you will be presented with a download of your Certificate of Completion that you may save / and or print. If you would rather have your Certificate of Completion mailed to you, please let us know when you mail your exam and evaluation sheets; or contact us at [ceumatrix@ceumatrix.com](mailto:ceumatrix@ceumatrix.com) or 800.421.4609.

If you do not obtain the required 80% score, we will provide you with feedback and instructions for retesting.

**OR**

3. *Submit your test by fax.* Simply follow the instructions above, but rather than mailing your sheets, fax them to us at ((512) 863-2231).

If you have any difficulty with this process, or need assistance, please e-mail us at [ceumatrix@ceumatrix.com](mailto:ceumatrix@ceumatrix.com) and ask for help.

**Answer the following questions by selecting the most appropriate response.**

Test Questions for Retraining and Updating on Currently Abused Drugs (RUCAD)

Part 2 Issues

1. The central doctrine in U. S. drug policy throughout a succession of crises has been:

- a. harm reduction
- b. social intervention
- c. prohibition
- d. legalism
- e. moralism

2. What has been the result of sharp increases in incarceration rates on the success of reducing the use or availability of drugs?

- a. profound success
- b. surprising success
- c. no success
- d. limited success
- e. striking success

3. Drug policy often has a \_\_\_\_\_ effect.

- a. pop-pop-pop
- b. push-down-pop-up
- c. push-up-pop-up
- d. pop-up-push down
- e. push-pop-push-pop

4. Drug policy debates have been competitions between supply-side \_\_\_\_\_ and demand reduction \_\_\_\_\_.

- a. eagles, owls
- b. doves, eagles
- c. hawks, doves
- d. paragons, phoenixes
- e. doves, raptors

*Retraining and Updating on Currently Abused Drugs*

5. Which of the following strategies of drug policy have not been successful in reducing drug use?
  - a. deterrence
  - b. harm reduction
  - c. public health
  - d. abhorrence
  - e. deterrent
  
6. One potential downside to treatment drug courts is the risk of \_\_\_\_\_.
  - a. leniency
  - b. gap widening
  - c. net narrowing
  - d. system widening
  - e. net widening
  
7. ATI stands for:
  - a. aggressive treatment initiatives
  - b. altruistic treatment interventions
  - c. assertive treatment in elasticity
  - d. alternatives to incarceration
  - e. assessing treatment initiatives
  
8. Drug epidemics:
  - a. tend to rage out of control
  - b. come and go
  - c. grow unchecked
  - d. dwindle away
  - e. steadily increase
  
9. Crackdowns involving mass arrest have \_\_\_\_\_ effect(s) on drug selling.
  - a. no
  - b. permanent
  - c. cost-limited
  - d. time-limited
  - e. effort-limited
  
10. The responsibility for enforcement and funding of drug policy should be shifted:
  - a. to the borders
  - b. away from local authorities
  - c. to the federal government
  - d. to international efforts
  - e. downward to the states

### Part 3 Inhalants

11. From 1997 to 2007, the number of admissions to treatment in which inhalants were the primary drug of abuse:
- increased by over 50 percent
  - decreased by 10 percent
  - decreased by over 50 percent
  - stayed the same
  - increased by about 25 percent
12. Death from a single session of inhalant use is termed:
- sudden brain death
  - sudden heart death
  - SIDS
  - SUDS
  - sudden sniffing death
13. The common term for nitrous oxide is:
- buzz bomb
  - water bomb
  - climax
  - atomic bomb
  - air burst

### Part 4 Heroin

14. The number of heroin initiates in 2008 was \_\_\_\_\_ than the number in 2002.
- significantly lower
  - not significantly different
  - significantly higher
  - insignificantly higher
  - insignificantly lower
15. What percent of state prisoners reported even using heroin in their lifetime?
- 3-4%
  - 8-9%
  - 4-5%
  - 10-15%
  - 23-24%

*Retraining and Updating on Currently Abused Drugs*

16. Of the 113 million ED visits in the U. S. during 2006, DAWN estimates that how many were involved with heroin?
- almost 2 million
  - 189 thousand
  - 500 thousand
  - one million
  - 689 thousand
17. The average age of individuals admitted to treatment for heroin during 2007 was \_\_\_\_\_ years.
- 26
  - 16
  - 22
  - 36
  - 46

Part 5

18. Which of the following is not a hallucinogen?
- PCP
  - LSD
  - ROXY
  - DMT
  - DXM
19. According to the 2008 NSDUH, how many Americans aged 12 or older reported trying hallucinogens at least once?
- 9%
  - 25%
  - 14%
  - 2%
  - 5%
20. According to the BJS what percent of state prisoners indicated they used hallucinogens at some point in their lives?
- 32
  - 22
  - 16
  - 10
  - 5

21. PCP lab seizure data indicate that PCP production is \_\_\_\_\_ and \_\_\_\_\_.
- a. low, staying the same
  - b. high, increasing
  - c. low, increasing
  - d. high, decreasing
  - e. low, decreasing

Part 6

22. What percent of the population, according to the NSDUH, aged 12 and older has tried marijuana?
- a. 33
  - b. 60
  - c. 10
  - d. 25
  - e. 41
23. Admissions to treatment for marijuana have:
- a. declined slightly
  - b. stayed the same
  - c. increased
  - d. doubled
  - e. tripled
24. According to ADAM, the city with the highest number of arrestees reporting marijuana use was:
- a. New York
  - b. Atlanta
  - c. Portland
  - d. Chicago
  - e. Washington, DC

Part 7

25. The number of new users of Meth aged 12 or older was \_\_\_\_\_ earlier years.
- a. slightly lower than
  - b. significantly higher than
  - c. significantly lower than
  - d. slightly higher than
  - e. the same as

*Retraining and Updating on Currently Abused Drugs*

26. Of federal defendants sentenced for meth-related charges, \_\_\_\_\_% were for trafficking and \_\_\_\_\_% were for simple possession.
- a. 50, 50
  - b. 25, 75
  - c. 75, 25
  - d. 97, 1
  - e. 10, 89
27. The city with the highest percent of adult arrestees reporting meth use in the past year was:
- a. Sacramento
  - b. Denver
  - c. Chicago
  - d. New York
  - e. Atlanta

Part 8

28. The drug with the highest use reported by 12<sup>th</sup> graders for non-medical use of prescriptions in 2008 was:
- a. ritalin
  - b. vicodin
  - c. oxycontin
  - d. methaqualone
  - e. sedatives
29. The percent of state prisoners reporting abuse of depressants regularly in 2004 was:
- a. 2
  - b. 15
  - c. 20
  - d. 5
  - e. 10
30. The drug with the highest number of drug-related arrests in 2006 was:
- a. oxycodone
  - b. hydrocodone
  - c. hydromorphone
  - d. benzodiazepines
  - e. methylphenidate

Part 9

31. Combining several different types of steroids is a process known as:
- laddering
  - racking
  - bumping
  - stacking
  - stringing
32. What percent of twelfth graders surveyed in 2008 indicated steroids were “fairly easy” or “very easy” to obtain?
- 25
  - 35
  - 10
  - 50
  - 15
33. Which of the following are street terms for steroids?
- Arnolds
  - gym candy
  - juice
  - pumpers
  - all of the above

Part 10

34. Rohypnol and GHB are often used in the commission of:
- shoplifting
  - fraud
  - burglary
  - robbery
  - sexual assault
35. The city with the highest percent of adult arrestees reporting ecstasy/MDMA use in the past 3 days was:
- Washington, DC
  - Atlanta
  - New York
  - Chicago
  - Denver

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36. According to the RCMP, the number of MDMA lab seizures have \_\_\_\_\_ since 2004, and the capacity has \_\_\_\_\_.
- remained stable, remained stable
  - increased, increased
  - remained stable, increased greatly
  - remained stable, decreased
  - decreased, decreased

Part 11

37. Crack users may experience acute respiratory problems, including coughing, lung trauma, and bleeding. Crack cocaine smoking can also cause aggressive and \_\_\_\_\_ behavior.
- post-hypnotic
  - phobic
  - PTSD
  - paranoid
  - psychotic
38. The city with the highest percent of adult arrestees reporting cocaine use in the past year was:
- Chicago
  - Atlanta
  - New York
  - Denver
  - Portland

Part 12

39. The city with the highest percent of arrestees reporting powder cocaine use in the past year was:
- Washington, DC
  - Atlanta
  - Portland
  - New York
  - Denver
40. Cocaine was first federally-regulated in:
- 1914
  - 1954
  - 1960
  - 1924
  - 1880





Fax/Mail Answer Sheet  
*CEU Matrix - The Institute for Addiction and Criminal Justice Studies*  
Coursework

Test results for the course “ \_\_\_\_\_ ”

If you submit your test results online, you do not need to return this form.

Name\*: \_\_\_\_\_  
(\* Please print your name as you want it to appear on your certificate)

Address: \_\_\_\_\_

City: \_\_\_\_\_

State: \_\_\_\_\_

Zip Code: \_\_\_\_\_

Social Security #\*: \_\_\_\_\_  
(\*Most certifying bodies require a personal identification number of some sort – last 4 digits or License is perfect.)

Phone Number: \_\_\_\_\_

Fax Number: \_\_\_\_\_

E-mail Address: \_\_\_\_\_

On the following sheet, mark your answers clearly. Once you have completed the test, please return this sheet and the answer sheet in one of the following ways:

1. Fax your answer sheets to the following phone number: (512) 863-2231. This fax machine is available 24 hours per day. **OR**
2. Send the answer sheet to:  
**CEU Matrix - The Institute for Addiction and Criminal Justice Studies**  
**P.O. Box 2000**  
**Georgetown, TX 78627**

You will receive notification of your score within 48 business hours of our receipt of the answer sheet. If you do not pass the exam, you will receive instructions at that time.



Name: \_\_\_\_\_

Course: \_\_\_\_\_

1. [A] [B] [C] [D] [E]

11. [A] [B] [C] [D] [E]

21. [A] [B] [C] [D] [E]

2. [A] [B] [C] [D] [E]

12. [A] [B] [C] [D] [E]

22. [A] [B] [C] [D] [E]

3. [A] [B] [C] [D] [E]

13. [A] [B] [C] [D] [E]

23. [A] [B] [C] [D] [E]

4. [A] [B] [C] [D] [E]

14. [A] [B] [C] [D] [E]

24. [A] [B] [C] [D] [E]

5. [A] [B] [C] [D] [E]

15. [A] [B] [C] [D] [E]

25. [A] [B] [C] [D] [E]

6. [A] [B] [C] [D] [E]

16. [A] [B] [C] [D] [E]

26. [A] [B] [C] [D] [E]

7. [A] [B] [C] [D] [E]

17. [A] [B] [C] [D] [E]

27. [A] [B] [C] [D] [E]

8. [A] [B] [C] [D] [E]

18. [A] [B] [C] [D] [E]

28. [A] [B] [C] [D] [E]

9. [A] [B] [C] [D] [E]

19. [A] [B] [C] [D] [E]

29. [A] [B] [C] [D] [E]

10. [A] [B] [C] [D] [E]

20. [A] [B] [C] [D] [E]

30. [A] [B] [C] [D] [E]

The final step in the process required to obtain your course certificate is to complete this course evaluation. These evaluations are used to assist us in making sure that the course content meets the needs and expectations of our students. Please fill in the information completely and include any comments in the spaces provided. Then, if mailing or faxing your test results, return this form along with your answer sheet for processing. **If you submit your evaluation online, you do not need to return this form.**

NAME: \_\_\_\_\_

COURSE TITLE: \_\_\_\_\_

DATE: \_\_\_\_\_

<b><u>COURSE CONTENT</u></b>		
<b>Information presented met the goals and objectives stated for this course</b>	<input type="checkbox"/> Start Over <input type="checkbox"/> Good <input type="checkbox"/> Excellent	<input type="checkbox"/> Needs work <input type="checkbox"/> Very Good
<b>Information was relevant</b>	<input type="checkbox"/> Start Over <input type="checkbox"/> Good <input type="checkbox"/> Excellent	<input type="checkbox"/> Needs work <input type="checkbox"/> Very Good
<b>Information was interesting</b>	<input type="checkbox"/> Start Over <input type="checkbox"/> Good <input type="checkbox"/> Excellent	<input type="checkbox"/> Needs work <input type="checkbox"/> Very Good
<b>Information will be useful in my work</b>	<input type="checkbox"/> Start Over <input type="checkbox"/> Good <input type="checkbox"/> Excellent	<input type="checkbox"/> Needs work <input type="checkbox"/> Very Good
<b>Format of course was clear</b>	<input type="checkbox"/> Start Over <input type="checkbox"/> Good <input type="checkbox"/> Excellent	<input type="checkbox"/> Needs work <input type="checkbox"/> Very Good
<b><u>POST TEST</u></b>		
<b>Questions covered course materials</b>	<input type="checkbox"/> Start Over <input type="checkbox"/> Good <input type="checkbox"/> Excellent	<input type="checkbox"/> Needs work <input type="checkbox"/> Very Good
<b>Questions were clear</b>	<input type="checkbox"/> Start Over <input type="checkbox"/> Good <input type="checkbox"/> Excellent	<input type="checkbox"/> Needs work <input type="checkbox"/> Very Good
<b>Answer sheet was easy to use</b>	<input type="checkbox"/> Start Over <input type="checkbox"/> Good <input type="checkbox"/> Excellent	<input type="checkbox"/> Needs work <input type="checkbox"/> Very Good

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**Course Evaluation – Page 2**

<b>COURSE MECHANICS</b>		
<b>Course materials were well organized</b>	<input type="checkbox"/> Start Over <input type="checkbox"/> Good <input type="checkbox"/> Excellent	<input type="checkbox"/> Needs work <input type="checkbox"/> Very Good
<b>Materials were received in a timely manner</b>	<input type="checkbox"/> Start Over <input type="checkbox"/> Good <input type="checkbox"/> Excellent	<input type="checkbox"/> Needs work <input type="checkbox"/> Very Good
<b>Cost of course was reasonable</b>	<input type="checkbox"/> Start Over <input type="checkbox"/> Good <input type="checkbox"/> Excellent	<input type="checkbox"/> Needs work <input type="checkbox"/> Very Good
<b>OVERALL RATING</b>		
<b>I give this distance learning course an overall rating of:</b>	<input type="checkbox"/> Start Over <input type="checkbox"/> Good <input type="checkbox"/> Excellent	<input type="checkbox"/> Needs work <input type="checkbox"/> Very Good
<b>FEEDBACK</b>		
<b>How did you hear about CEU Matrix?</b>	<input type="checkbox"/> Web Search Engine <input type="checkbox"/> Mailing <input type="checkbox"/> Telephone Contact <input type="checkbox"/> E-mail posting <input type="checkbox"/> Other Linkage <input type="checkbox"/> FMS Advertisement <input type="checkbox"/> Other: _____	
<b>What I liked BEST about this course:</b>		
<b>I would suggest the following IMPROVEMENTS:</b>		
<b>Please tell us how long it took you to complete the course, post-test and evaluation:</b>	_____ minutes were spent on this course.	
<b>Other COMMENTS:</b>		

