U.S. DEPARTMENT OF JUSTICE
DRUG ENFORCEMENT ADMINISTRATION

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Drugs *of* Abuse

2011 EDITION ○ A DEA RESOURCE GUIDE

II. Controlled Substances Act

CONTROLLING DRUGS OR OTHER SUBSTANCES THROUGH FORMAL SCHEDULING

The Controlled Substances Act (CSA) places all substances which were in some manner regulated under existing federal law into one of five schedules. This placement is based upon the substance's medical use, potential for abuse, and safety or dependence liability. The Act also provides a mechanism for substances to be controlled (added to or transferred between schedules) or decontrolled (removed from control). The procedure for these actions is found in Section 201 of the Act (21 U.S.C. § 811).

Proceedings to add, delete, or change the schedule of a drug or other substance may be initiated by the Drug Enforcement Administration (DEA), the Department of Health and Human Services (HHS), or by petition from any interested party, including:

- The manufacturer of a drug
- A medical society or association
- A pharmacy association
- A public interest group concerned with drug abuse
- A state or local government agency
- An individual citizen

When a petition is received by the DEA, the agency begins its own investigation of the drug. The DEA also may begin an investigation of a drug at any time based upon information received from law enforcement laboratories, state and local law enforcement and regulatory agencies, or other sources of information.

Once the DEA has collected the necessary data, the DEA Administrator, by authority of the Attorney General, requests from HHS a scientific and medical evaluation and recommendation as to whether the drug or other substance should be controlled or removed from control. This request is sent to the Assistant Secretary for Health of HHS.

The Assistant Secretary, by authority of the Secretary, compiles the information and transmits back to the DEA: a medical and scientific evaluation regarding the drug or other substance, a recommendation as to whether the drug should be controlled, and in what schedule it should be placed.

The medical and scientific evaluations are binding on the DEA with respect to scientific and medical matters and form a part of the scheduling decision.

Once the DEA has received the scientific and medical evaluation from HHS, the Administrator will evaluate all available data and make a final decision whether to propose that a drug or other substance should be removed or controlled and into which schedule it should be placed.

If a drug does not have a potential for abuse, it cannot be controlled. Although the term "potential for abuse" is not defined in the CSA, there is much discussion of the term in the legislative history of the Act. The following items are indicators that a drug or other substance has a potential for abuse:

(1) There is evidence that individuals are taking the drug or other substance in amounts sufficient to create a hazard to their health or to the safety of other individuals or to the community.

(2) There is significant diversion of the drug or other substance from legitimate drug channels.

(3) Individuals are taking the drug or other substance on their own initiative rather than on the basis of medical advice from a practitioner.

(4) The drug is a new drug so related in its action to a drug or other substance already listed as having a potential for abuse to make it likely that the drug will have the same potential for abuse as such drugs, thus making it reasonable to assume that there may be significant diversions from legitimate channels, significant use contrary to or without medical advice, or that it has a substantial capability of creating hazards to the health of the user or to the safety of the community. Of course, evidence

of actual abuse of a substance is indicative that a drug has a potential for abuse.

In determining into which schedule a drug or other substance should be placed, or whether a substance should be decontrolled or rescheduled, certain factors are required to be considered. These factors are listed in Section 201 (c), [21 U.S.C. § 811 (c)] of the CSA as follows:

(1) *The drug's actual or relative potential for abuse.*

(2) *Scientific evidence of the drug's pharmacological effect, if known.* The state of knowledge with respect to the effects of a specific drug is, of course, a major consideration. For example, it is vital to know whether or not a drug has a hallucinogenic effect if it is to be controlled due to that effect.

The best available knowledge of the pharmacological properties of a drug should be considered.

(3) *The state of current scientific knowledge regarding the substance.* Criteria (2) and (3) are closely related. However, (2) is primarily concerned with pharmacological effects and (3) deals with all scientific knowledge with respect to the substance.

(4) *Its history and current pattern of abuse.* To determine whether or not a drug should be controlled, it is important to know the pattern of abuse of that substance.

(5) *The scope, duration, and significance of abuse.* In evaluating existing abuse, the DEA Administrator must know not only the pattern of abuse, but whether the abuse is widespread.

(6) *What, if any, risk there is to the public health.* If a drug creates dangers to the public health, in addition to or because of its abuse potential, then these dangers must also be considered by the Administrator.

(7) *The drug's psychic or physiological dependence liability.* There must be an assessment of the extent to which a drug is physically addictive or psychologically habit forming.

(8) *Whether the substance is an immediate precursor of a substance already controlled.* The CSA allows inclusion of immediate precursors on this basis alone into the appropriate schedule and thus safeguards against possibilities of clandestine manufacture. After considering the above listed factors, the Administrator must make specific findings concerning the drug or other substance. This will determine into which schedule the drug or other substance will be placed. These schedules are established by the CSA. They are as follows:

Schedule I

- The drug or other substance has a high potential for abuse.
- The drug or other substance has no currently accepted medical use in treatment in the United States.
- There is a lack of accepted safety for use of the drug or other substance under medical supervision.
- Examples of Schedule I substances include heroin, gamma hydroxybutyric acid (GHB), lysergic acid diethylamide (LSD), marijuana, and methaqualone.

Schedule II

- The drug or other substance has a high potential for abuse.
- The drug or other substance has a currently accepted medical use in treatment in the United States or a currently accepted medical use with severe restrictions.
- Abuse of the drug or other substance may lead to severe psychological or physical dependence.
- Examples of Schedule II substances include morphine, phencyclidine (PCP), cocaine, methadone, hydrocodone, fentanyl, and methamphetamine.

Schedule III

- The drug or other substance has less potential for abuse than the drugs or other substances in Schedules I and II.
- The drug or other substance has a currently accepted medical use in treatment in the United States.
- Abuse of the drug or other substance may lead to moderate or low physical dependence or high psychological dependence.
- Anabolic steroids, codeine and hydrocodone products with aspirin or Tylenol®, and some barbiturates are examples of Schedule III substances.

Schedule IV

- The drug or other substance has a low potential for abuse relative to the drugs or other substances in Schedule III.
- The drug or other substance has a currently accepted medical use in treatment in the United States.
- Abuse of the drug or other substance may lead to limited physical dependence or psychological dependence relative to the drugs or other substances in Schedule III.
- Examples of drugs included in Schedule IV are alprazolam, clonazepam, and diazepam.

Schedule V

- The drug or other substance has a low potential for abuse relative to the drugs or other substances in Schedule IV.
- The drug or other substance has a currently accepted medical use in treatment in the United States.
- Abuse of the drug or other substances may lead to limited physical dependence or psychological dependence relative to the drugs or other substances in Schedule IV.
- Cough medicines with codeine are examples of Schedule V drugs.

When the DEA Administrator has determined that a drug or other substance should be controlled, decontrolled, or rescheduled, a proposal to take action is published in the Federal Register. The proposal invites all interested persons to file comments with the DEA and may also request a hearing with the DEA. If no hearing is requested, the DEA will evaluate all comments received and publish a final order in the Federal Register, controlling the drug as proposed or with modifications based upon the written comments filed. This order will set the effective dates for imposing the various requirements of the CSA.

If a hearing is requested, the DEA will enter into discussions with the party or parties requesting a hearing in an attempt to narrow the issue for litigation. If necessary, a hearing will then be held before an Administrative Law Judge. The judge will take evidence on factual issues and hear arguments on legal questions regarding the control of the drug. Depending on the scope and complexity of the issues, the hearing may be brief or quite extensive. The Administrative Law Judge, at the close of the hearing, prepares findings of fact and conclusions of law and a recommended decision that is submitted to the DEA Administrator. The DEA Administrator will review these documents, as well as the underlying material, and prepare his/her own findings of fact and conclusions of law (which may or may not be the same as those drafted by the Administrative Law Judge). The DEA Administrator then publishes a final order in the Federal Register either scheduling the drug or other substance or declining to do so.

Once the final order is published in the Federal Register, interested parties have 30 days to appeal to a U.S. Court of Appeals to challenge the order. Findings of fact by the Administrator are deemed conclusive if supported by "substantial evidence." The order imposing controls is not stayed during the appeal, however, unless so ordered by the Court.

Emergency or Temporary Scheduling

The CSA was amended by the Comprehensive Crime Control Act of 1984. This Act included a provision which allows the DEA Administrator to place a substance, on a temporary basis, into Schedule I, when necessary, to avoid an imminent hazard to the public safety.

This emergency scheduling authority permits the scheduling of a substance which is not currently controlled, is being abused, and is a risk to the public health while the formal rulemaking procedures described in the CSA are being conducted. This emergency scheduling applies only to substances with no accepted medical use.

A temporary scheduling order may be issued for one year with a possible extension of up to six months if formal scheduling procedures have been initiated. The notice of intent and order are published in the Federal Register, as are the proposals and orders for formal scheduling. [21 U.S.C. § 811 (h)]

Controlled Substance Analogues

A new class of substances was created by the Anti-Drug Abuse Act of 1986. Controlled substance analogues are substances that are not controlled substances, but may be found in illicit trafficking. They are structurally or pharmacologically similar to Schedule I or II controlled substances and have no legitimate medical use. A substance that meets the definition of a controlled substance analogue and is intended for human consumption is treated under the CSA as if it were a controlled substance in Schedule I. [21 U.S.C. § 802(32), 21 U.S.C. § 813]

International Treaty Obligations

United States treaty obligations may require that a drug or other substance be controlled under the CSA, or rescheduled if existing controls are less stringent than those required by a treaty. The procedures for these scheduling actions are found in Section 201 (d) of the Act. [21 U.S.C. § 811 (d)]

The United States is a party to the Single Convention on Narcotic Drugs of 1961, which was designed to establish effective control over international and domestic traffic in narcotics, coca leaf, cocaine, and cannabis. A second treaty, the Convention on Psychotropic Substances of 1971, which entered into force in 1976 and was ratified by Congress in 1980, is designed to establish comparable control over stimulants, depressants, and hallucinogens.

REGULATION

The CSA creates a closed system of distribution for controlled substances.

The cornerstone of this system is the registration of all those authorized by DEA to handle controlled substances. All individuals and firms that are registered are required to maintain complete and accurate inventories, and records of all transactions involving controlled substances, as well as security for the storage of controlled substances.

Registration

Any person who handles or intends to handle controlled substances must obtain a registration issued by DEA. A unique number is assigned to each legitimate handler of controlled drugs such as importer, exporter, manufacturer, distributor, hospital, pharmacy, practitioner, and researcher.

This number must be made available to the supplier by the customer prior to the purchase of a controlled substance. Thus, the opportunity for unauthorized transactions is greatly diminished.

Recordkeeping and Reporting

The CSA requires that complete and accurate records be kept of all quantities of controlled substances manufactured, purchased, and sold. Each substance must be inventoried every two years. Some limited exceptions to the recordkeeping requirements may apply to certain categories of registrants.

From these records it is possible to trace the flow of any drug from the time it is first imported or manufactured, through the distribution level, to the pharmacy or hospital that dispensed it, and then to the actual patient who received the drug. The mere existence of this requirement is sufficient to discourage many forms of diversion. It actually serves large drug corporations as an internal check to uncover diversion, such as pilferage by employees.

There is one distinction between scheduled items for record keeping requirements. Records for Schedule I and II drugs must be kept separate from all other records maintained by the registrant. Records for Schedule III, IV, and V substances must be kept in a "readily retrievable" form, or maintained separately from all other records.

Distribution

Maintaining records is required for distribution of a controlled substance from one manufacturer to another, from manufacturer to distributor, and from distributor to dispenser. In the case of Schedule I and II drugs, the supplier must have a special order form from the customer. This order form (DEA Form 222) is issued by DEA only to persons who are properly registered to handle Schedule I and II controlled substances.

The form is preprinted with the name and address of the customer. The drugs must be shipped to this name and address. The use of this form is a special reinforcement of the registration requirement; it ensures that only authorized individuals may obtain Schedule I and II drugs.

Controlled Substance Ordering System (CSOS) – Electronic Order Forms

Any registrant permitted to order Schedule II controlled substances may do so electronically via the DEA Controlled Substance Ordering System (CSOS). The use of electronic orders is optional; registrants may continue to issue orders on a paper DEA Form 222. CSOS allows for secure electronic transmission of controlled substance orders without the supporting paper DEA Form 222. The adoption of the CSOS standards is the only allowance for the electronic transmission of Schedule II controlled substance orders between controlled substance manufacturers, distributors, pharmacies, and other DEA authorized entities. CSOS uses Public Key Infrastructure (PKI) technology, which requires CSOS users to obtain a CSOS digital certificate for electronic ordering. The electronic orders must be signed using a digital signature issued by a Certification Authority (CA) operated by DEA.

Digital certificates can be obtained only by registrants and individuals granted power of attorney by registrants to sign orders. A registrant must appoint a CSOS coordinator who will serve as that registrant's recognized agent regarding issues pertaining to issuance of, revocation of, and changes to, digital certificates issued under that registrant's DEA registration. A CSOS digital certificate will be valid until the DEA registration under which it is issued expires or until the CSOS CA is notified that the certificate should be revoked. Certificates will be revoked if the certificate holder is no longer authorized to sign Schedule II orders for the registrant, if the information on which the certificate is based changes, or if the digital certificate used to sign electronic orders has been compromised, stolen, or lost.

Another benefit of the form is the special monitoring it permits. The form is issued in triplicate: the customer keeps one copy; two copies go to the supplier, who, after filling the order, keeps a copy and forwards the third copy to the nearest DEA office. For drugs in Schedules III, IV, and V, no order form is necessary. The supplier in each case, however, is under an obligation to verify the authenticity of the customer. The supplier is held fully accountable for any drugs that are shipped to a purchaser who does not have a valid registration. Manufacturers must submit periodic reports of the Schedule I and II controlled substances they produce in bulk and dosage forms.

They also report the manufactured quantity and form of each narcotic substance listed in Schedule III. Distributors of controlled substances must report the quantity and form of all their transactions of controlled drugs listed in Schedules I and II, narcotics listed in Schedule III, and GHB. Both manufacturers and distributors are required to provide reports of their annual inventories of these controlled substances. This data is entered into a system called the Automated Reports and Consolidated Orders System (ARCOS). It enables the DEA to monitor the distribution of controlled substances throughout the country, and to identify retail level registrants that receive unusual quantities of controlled substances.

Dispensing to Patients

The dispensing of a controlled substance is the delivery by a practitioner of the controlled substance to the ultimate user, who may be a patient or research subject. Special control mechanisms operate here as well. Schedule I drugs are those that have no currently accepted medical use in the United States; therefore, they may be used in the United States only in research situations. They generally are supplied by only a limited number of firms to properly registered and qualified researchers. Controlled substances may be dispensed by a practitioner by direct administration, by prescription, or by dispensing.

Records must be maintained by the practitioner of all dispensing of controlled substances and of certain administrations. The CSA does not require the practitioner to maintain copies of prescriptions, unless, such substances are prescribed in the course of maintenance or detoxification treatment of an individual. Certain states require the use of multiple-copy prescriptions for Schedule II and other specified controlled substances.

The determination to place drugs on prescription is within the jurisdiction of the FDA. Unlike other prescription drugs, however, controlled substances are subject to additional restrictions. Schedule II prescription orders must be written and signed by the practitioner; they may not be telephoned into the pharmacy except in an emergency. In addition, a prescription for a Schedule II drug may not be refilled. For Schedule III and IV drugs, the prescription order may be either written or oral (that is, by telephone to the pharmacy). In addition, the patient may (if authorized by the practitioner) have the prescription refilled up to five times and at anytime within six months from the date the prescription was issued.

Schedule V includes some prescription drugs and many narcotic preparations, including antitussives and antidiarrheals. Even here, however, the law imposes restrictions beyond those normally required for the over-the-counter sales; for example, the patient must be at least 18 years of age, must offer some form of identification, and have his or her name entered into a special log maintained by the pharmacist as part of a special record.

Electronic Prescriptions

On March 31, 2010, DEA published in the Federal Register the *Electronic Prescriptions for Controlled Substances* interim final rule which became effective June 1, 2010. The rule provides practitioners with the option of writing prescriptions for controlled substances electronically and also permits pharmacies to receive, dispense, and archive these electronic prescriptions.

Persons who wish to dispense controlled substances using electronic prescriptions must select software that meets the requirements of this rule. As of June 1, 2010, only those electronic applications that comply with all of DEA's requirements as set forth in 21 C.F.R. §1311 may be used to electronically create, transmit, receive/archive controlled substances prescriptions, and dispense controlled substances based on those prescriptions.

Ryan Haight Online Pharmacy Consumer Protection Act of 2008

On October 15, 2008, the President signed into law the *Ryan Haight Online Pharmacy Consumer Protection Act of 2008*, often referred to as the *Ryan Haight Act*. This law amends the CSA by adding a series of new regulatory requirements and criminal provisions designed to combat the proliferation of so-called "rogue Internet sites" that unlawfully dispense controlled substances by means of the Internet. The *Ryan Haight Act* applies to all controlled substances in all schedules. An online pharmacy is a person, entity, or Internet

site, whether in the United States or abroad, that knowingly or intentionally delivers, distributes, or dispenses, or offers or attempts to deliver, distribute, or dispense, a controlled substance by means of the Internet.

This law became effective April 13, 2009. As of that date, it is illegal under federal law to deliver, distribute, or dispense a controlled substance by means of the Internet unless the online pharmacy holds a modification of DEA registration authorizing it to operate as an online pharmacy.

Quotas

DEA limits the quantity of Schedule I and II controlled substances that may be produced in the United States in any given calendar year. By utilizing available data on sales and inventories of these controlled substances, and taking into account estimates of drug usage provided by the FDA, the DEA establishes annual aggregate production quotas for Schedule I and II controlled substances.

The aggregate production quota is allocated among the various manufacturers who are registered to manufacture the specific drug. DEA also allocates the amount of bulk drug that may be procured by those companies that prepare the drug into dosage units.

Security

DEA registrants are required by regulation to maintain certain security for the storage and distribution of controlled substances. Manufacturers and distributors of Schedule I and II substances must store controlled substances in specially constructed vaults or highly rated safes, and maintain electronic security for all storage areas. Lesser physical security requirements apply to retail level registrants such as hospitals and pharmacies. All registrants are required to make every effort to ensure that controlled substances in their possession are not diverted into the illicit market. This requires operational as well as physical security. For example, registrants are responsible for ensuring that controlled substances are distributed only to other registrants that are authorized to receive them, or to legitimate patients.

Controlled Substance Theft or Significant Loss

Should a theft or significant loss of any controlled substance occur, a registrant must implement the following procedures within one business day of the discovery of the theft or loss.

A. Notify DEA and Local Police

The theft of controlled substances from a registrant is a criminal act and a source of diversion that requires notification to DEA.

A pharmacy must notify in writing the local DEA Diversion Field Office within one business day of discovery of a theft or significant loss of a controlled substance. Although not specifically required by federal law or regulations, the registrant should also notify local law enforcement and state regulatory agencies. Prompt notification to enforcement agencies will allow them to investigate the incident and prosecute those responsible for the diversion. If there is a question as to whether a theft has occurred or a loss is significant, a registrant should err on the side of caution and report it to DEA and local law enforcement authorities.

DEA must be notified directly. This requirement is not satisfied by reporting the theft or significant loss in any other manner. For example, a corporation which owns or operates multiple registered sites and wishes to channel all notifications through corporate management or any other internal department responsible for security, must still provide notice directly to DEA in writing within one business day upon discovery and keep a copy of that notice for its records. The notice must be signed by an authorized individual of the registrant.

B. Complete DEA Form 106

A pharmacy must also complete a DEA Form 106 (Report of Theft or Loss of Controlled Substances) which can be found online at www.DEAdiversion.usdoj.gov under the Quick Links section. The DEA Form 106 is used to document the actual circumstances of the theft or significant loss and the quantities of controlled substances involved. A paper version of the form may also be obtained by writing to the Drug Enforcement Administration. If completing the paper version, the pharmacy should send the original DEA Form 106 to the local DEA Diversion Field Office and keep a copy for its records.

PENALTIES

The CSA provides penalties for unlawful manufacturing, distribution, and dispensing of controlled substances. The penalties are basically determined by the schedule of the drug or other substance, and sometimes are specified by drug name, as in the case of marijuana. As the statute has been amended since its initial passage in 1970, the penalties have been altered by Congress. The following charts are an overview of the penalties for trafficking or unlawful distribution of controlled substances. This is not inclusive of the penalties provided under the CSA.

User Accountability/Personal Use Penalties

On November 19, 1988, Congress passed the Anti-Drug Abuse Act of 1988, P. L. 100-690. Two sections of this Act represent the U.S. Government's attempt to reduce drug abuse by dealing not just with the person who sells the illegal drug, but also with the person who buys it. The first new section is titled "User Accountability," and is codified at 21 U.S.C. § 862 and various sections of Title 42, U.S.C. The second involves "personal use amounts" of illegal drugs, and is codified at 21 U.S.C. § 844a.

User Accountability

The purpose of User Accountability is to not only make the public aware of the Federal Government's position on drug abuse, but to describe new programs intended to decrease drug abuse by holding drug abusers personally responsible for their illegal activities, and imposing civil penalties on those who violate drug laws.

It is important to remember that these penalties are in addition to the criminal penalties drug abusers are already given, and do not replace those criminal penalties.

The new User Accountability programs call for more instruction in schools, kindergarten through senior high, to educate children on the dangers of drug abuse. These programs will include participation by students, parents, teachers, local businesses and the local, state, and Federal Government.

User Accountability also targets businesses interested in doing business with the Federal Government. This program requires those businesses to maintain a drug-free workplace, principally through educating employees on the dangers of drug abuse, and by informing employees of the penalties they face if they engage in illegal drug activity on company property. There is also a provision in the law that makes public housing projects drug-free by evicting those residents who allow their units to be used for illegal drug activity, and denies federal benefits, such as housing assistance and student loans, to individuals convicted of illegal drug activity. Depending on the offense, an individual may be prohibited from ever receiving any benefit provided by the Federal Government.

Personal Use Amounts

This section of the 1988 Act allows the government to punish minor drug offenders without giving the offender a criminal record if the offender is in possession of only a small amount of drugs. This law is designed to impact the "user" of illicit drugs, while simultaneously saving the government the costs of a full-blown criminal investigation. Under this section, the government has the option of imposing only a civil fine on individuals possessing only a small quantity of an illegal drug. Possession of this small quantity, identified as a "personal use amount," carries a civil fine of up to $10,000.

In determining the amount of the fine in a particular case, the drug offender's income and assets will be considered. This is accomplished through an administrative proceeding rather than a criminal trial, thus reducing the exposure of the offender to the entire criminal justice system, and reducing the costs to the offender and the government.

The value of this section is that it allows the government to punish a minor drug offender, gives the drug offender the opportunity to fully redeem himself or herself, and have all public record of the proceeding destroyed. If this was the drug offender's first offense, and the offender has paid all fines, can pass a drug test, and has not been convicted of a crime after three years, the offender can request that all proceedings be dismissed.

If the proceeding is dismissed, the drug offender can lawfully say he or she had never been prosecuted, either criminally or civilly, for a drug offense.

Congress has imposed two limitations on this section's use. It may not be used if (1) the drug offender has been previously convicted of a Federal or state drug offense; or (2) the offender has already been fined twice under this section.

SCHEDULE I

SUBSTANCE	DEA NUMBER	NARCOTIC	OTHER NAMES
Racemoramide	9645	Y	
Tetrahydrocannabinols	7370	N	THC, Delta-8 THC, Delta-9 THC, dronabinol and others
Thebacon	9315	Y	Acetylhydrocodone, Acedicon, Thebacetyl
Thiofentanyl	9835	Y	Chine white, fentanyl
Tilidine	9750	Y	Tilidate, Valoron, Kitadol, Lak, Tilsa
Trimeperidine	9646	Y	Promedolum

SCHEDULE II

SUBSTANCE	DEA NUMBER	NARCOTIC	OTHER NAMES
1-Phenylcyclohexylamine	7460	N	Precusor of PCP
1-Piperidinocyclohexanecarbonitrile	8603	N	PCC, precusor of PCP
4-Anilino-N-phenethyl-4-piperidine (ANPP)	8333	N	ANPP
Alfentanil	9737	Y	Alfenta
Alphaprodine	9010	Y	Nisentil
Amobarbital	2125	N	Amytal, Tuinal
Amphetamine	1100	N	Dexedrine, Adderall, Obetrol
Anileridine	9020	Y	Leritine
Benzoylecgonine	9180	Y	Cocaine metabolite
Bezitramide	9800	Y	Burgodin
Carfentanil	9743	Y	Wildnil
Coca Leaves	9040	Y	
Cocaine	9041	Y	Methyl benzoylecgonine, Crack
Codeine	9050	Y	Morphine methyl ester, methyl morphine
Dextropropoxyphene, bulk (non-dosage forms)	9273	Y	Propoxyphene
Dihydrocodeine	9120	Y	Didrate, Parzone
Dihydroetorphine	9334	Y	DHE
Diphenoxylate	9170	Y	
Diprenorphine	9058	Y	M50-50
Ecgonine	9180	Y	Cocaine precursor, in Coca leaves
Ethylmorphine	9190	Y	Dionin
Etorphine	9059	Y	M 99
Fentanyl	9801	Y	Duragesic, Oralet, Actiq, Sublimaze, Innovar
Glutethimide	2550	N	Doriden, Dorimide
Hydrocodone	9193	Y	dihydrocodeinone
Hydromorphone	9150	Y	Dilaudid, dihydromorphinone
Isomethadone	9226	Y	Isoamidone
Levo-alphacetylmethadol	9648	Y	LAAM, long acting methadone, levomethadyl acetate

SCHEDULE II

SUBSTANCE	DEA NUMBER	NARCOTIC	OTHER NAMES
Levomethorphan	9210	Y	
Levorphanol	9220	Y	Levo-Dromoran
Lisdexamfetamine	1205	N	Vyvans
Meperidine	9230	Y	Demerol, Mepergan, pethidine
Meperidine intermediate-A	9232	Y	Meperidine precursor
Meperidine intermediate-B	9233	Y	Meperidine precursor, normeperidine
Meperidine intermediate-C	9234	Y	Meperidine precursor
Metazocine	9240	Y	
Methadone	9250	Y	Dolophine, Methadose, Amidone
Methadone intermediate	9254	Y	Methadone precursor
Methamphetamine	1105	N	Desoxyn, D-desoxyephedrine, ICE, Crank, Speed
Methylphenidate	1724	N	Concerta, Ritalin, Methylin
Metopon	9260	Y	
Moramide-intermediate	9802	Y	
Morphine	9300	Y	MS Contin, Roxanol, Oramorph, RMS, MSIR
Nabilone	7379	N	Cesamet
Opium extracts	9610	Y	
Opium fluid extract	9620	Y	
Opium poppy	9650	Y	Papaver somniferum
Opium tincture	9630	Y	Laudanum
Opium, granulated	9640	Y	Granulated opium
Opium, powdered	9639	Y	Powdered Opium
Opium, raw	9600	Y	Raw opium, gum opium
Oripavine	9330	Y	
Oxycodone	9143	Y	OxyContin, Percocet, Endocet, Roxicodone, Roxicet
Oxymorphone	9652	Y	Numorphan
Pentobarbital	2270	N	Nembutal
Phenazocine	9715	Y	Narphen, Prinadol
Phencyclidine	7471	N	PCP, Sernylan
Phenmetrazine	1631	N	Preludin
Phenylacetone	8501	N	P2P, phenyl-2-propanone, benzyl methyl ketone
Piminodine	9730	Y	
Poppy Straw	9650	Y	Opium poppy capsules, poppy heads
Poppy Straw Concentrate	9670	Y	Concentrate of Poppy Straw, CPS
Racemethorphan	9732	Y	
Racemorphan	9733	Y	Dromoran
Remifentanil	9739	Y	Ultiva
Secobarbital	2315	N	Seconal, Tuinal
Sufentanil	9740	Y	Sufenta
Tapentadol	9780	Y	
Thebaine	9333	Y	Precursor of many narcotics

IV. Introduction to Drug Classes

The Controlled Substances Act (CSA) regulates five classes of drugs:

- ➔ Narcotics
- ➔ Depressants
- ➔ Stimulants
- ➔ Hallucinogens
- ➔ Anabolic steroids

Each class has distinguishing properties, and drugs within each class often produce similar effects. However, all controlled substances, regardless of class, share a number of common features. This introduction will familiarize you with these shared features and define the terms frequently associated with these drugs.

All controlled substances have abuse potential or are immediate precursors to substances with abuse potential. With the exception of anabolic steroids, controlled substances are abused to alter mood, thought, and feeling through their actions on the central nervous system (brain and spinal cord). Some of these drugs alleviate pain, anxiety, or depression. Some induce sleep and others energize.

Though some controlled substances are therapeutically useful, the "feel good" effects of these drugs contribute to their abuse. The extent to which a substance is reliably capable of producing intensely pleasurable feelings (euphoria) increases the likelihood of that substance being abused.

DRUG ABUSE

When drugs are used in a manner or amount inconsistent with the medical or social patterns of a culture, it is called drug abuse. The non-sanctioned use of substances controlled in Schedules I through V of the CSA is considered drug abuse. While legal pharmaceuticals placed under control in the CSA are prescribed and used by patients for medical treatment, the use of these same pharmaceuticals outside the scope of sound medical practice is drug abuse.

DEPENDENCE

In addition to having abuse potential, most controlled substances are capable of producing dependence, either physical or psychological.

Physical Dependence

Physical dependence refers to the changes that have occurred in the body after repeated use of a drug that necessitates the continued administration of the drug to prevent a withdrawal syndrome. This withdrawal syndrome can range from mildly unpleasant to life-threatening and is dependent on a number of factors, such as:

- ➔ The drug being used
- ➔ The dose and route of administration
- ➔ Concurrent use of other drugs
- ➔ Frequency and duration of drug use
- ➔ The age, sex, health, and genetic makeup of the user

Psychological Dependence

Psychological dependence refers to the perceived "need" or "craving" for a drug. Individuals who are psychologically dependent on a particular substance often feel that they cannot function without continued use of that substance. While physical dependence disappears within days or weeks after drug use stops, psychological dependence can last much longer and is one of the primary reasons for relapse (initiation of drug use after a period of abstinence).

Contrary to common belief, physical dependence is not addiction. While addicts are usually physically dependent on the drug they are abusing, physical dependence can exist without addiction. For example, patients who take narcotics for chronic

pain management or benzodiazepines to treat anxiety are likely to be physically dependent on that medication.

ADDICTION

Addiction is defined as compulsive drug-seeking behavior where acquiring and using a drug becomes the most important activity in the user's life. This definition implies a loss of control regarding drug use, and the addict will continue to use a drug despite serious medical and/or social consequences. In 2009, an estimated 21.8 million Americans aged 12 or older were current (past month) illicit drug users, meaning they had used an illicit drug during the month prior to the survey interview. This estimate represents 8.7 percent of the population aged 12 or older. Illicit drugs include marijuana/hashish, cocaine (including crack), heroin, hallucinogens, inhalants, or prescription-type psychotherapeutics used nonmedically. [1]

Drugs within a class are often compared with each other with terms like potency and efficacy. Potency refers to the amount of a drug that must be taken to produce a certain effect, while efficacy refers to whether or not a drug is capable of producing a given effect regardless of dose. Both the strength and the ability of a substance to produce certain effects play a role in whether that drug is selected by the drug abuser.

It is important to keep in mind that the effects produced by any drug can vary significantly and is largely dependent on the dose and route of administration. Concurrent use of other drugs can enhance or block an effect, and substance abusers often take more than one drug to boost the desired effects or counter unwanted side effects. The risks associated with drug abuse cannot be accurately predicted because each user has his/her own unique sensitivity to a drug. There are a number of theories that attempt to explain these differences, and it is clear that a genetic component may predispose an individual to certain toxicities or even addictive behavior.

Youth are especially vulnerable to drug abuse. According to NIDA, young Americans engaged in extraordinary levels of illicit drug use in the last third of the twentieth century. Today, about 47% of young people have used an illicit drug by the time they leave high school and about 16 percent of eighth, tenth, and twelfth graders are current (within the past month) users. [2]

The behaviors associated with teen and preteen drug use often result in tragic consequences with untold harm to others, themselves, and their families. For example, an analysis of data from the National Survey on Drug Use and Health indicates that youth between the ages of 12 and 17 who had engaged in fighting or other delinquent behaviors were more likely than other youths to have used illicit drugs in the past month. For example, in 2009, past-month illicit drug use was reported by 18.8 percent of youths who had gotten into a serious fight at school or work in the past year, compared with 7.7 percent of those who had not engaged in fighting, and by 38.3 percent of those who had stolen or tried to steal something worth over $50 in the past year compared with 8.7 percent of those who had not attempted or engaged in such theft. [3]

In the sections that follow, each of the five classes of drugs is reviewed and various drugs within each class are profiled. Although marijuana is classified in the CSA as a hallucinogen, a separate section is dedicated to that topic. There are also a number of substances that are abused but not regulated under the CSA. Alcohol and tobacco, for example, are specifically exempt from control by the CSA. In addition, a whole group of substances called inhalants are commonly available and widely abused by children. Control of these substances under the CSA would not only impede legitimate commerce, but also would likely have little effect on the abuse of these substances by youngsters. An energetic campaign aimed at educating both adults and youth about inhalants is more likely to prevent their abuse. To that end, a section is dedicated to providing information on inhalants.

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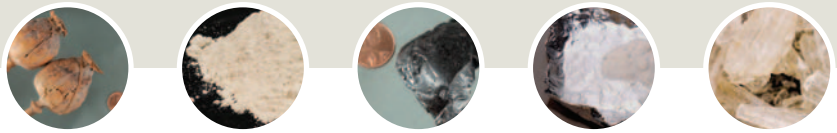
[1] *Results from the 2009 National Survey on Drug Use and Health: Volume I. Summary of National Findings; U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration*

[2] *Monitoring the Future Survey, 2009; National Institute on Drug Abuse, National Institutes of Health, U.S. Department of Health and Human Services*

[3] *National Survey on Drug Use and Health, 2009; U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration*



V. Narcotics

WHAT ARE NARCOTICS?

Also known as "opioids," the term "narcotic" comes from the Greek word for "stupor" and originally referred to a variety of substances that dulled the senses and relieved pain. Though some people still refer to all drugs as "narcotics," today "narcotic" refers to opium, opium derivatives, and their semi-synthetic substitutes. A more current term for these drugs, with less uncertainty regarding its meaning, is "opioid." Examples include the illicit drug heroin and pharmaceutical drugs like OxyContin®, Vicodin®, codeine, morphine, methadone, and fentanyl.

WHAT IS THEIR ORIGIN?

The poppy papaver somniferum is the source for all natural opioids, whereas synthetic opioids are made entirely in a lab and include meperidine, fentanyl, and methadone. Semi-synthetic opioids are synthesized from naturally occurring opium products, such as morphine and codeine, and include heroin, oxycodone, hydrocodone, and hydromorphone. Teens can obtain narcotics from friends, family members, medicine cabinets, pharmacies, nursing homes, hospitals, hospices, doctors, and the Internet.

OxyContin® 160 mg tablet

Heroin

What are common street names?

Street names for various narcotics/opioids include:

➔ Smack, Horse, Mud, Brown Sugar, Junk, Black Tat, Big H, Paregoric, Dover's Powder, MPTP (New Heroin), Hilbilly Heroin, Lean or Purple Drank, OC, Ox, Oxy, Oxycotton, Sippin Syrup

What do they look like?

Narcotics/opioids come in various forms, including:

➔ Tablets, capsules, skin patches, powder, chunks in varying colors (from white to shades of brown and black), liquid form for oral use and injection, syrups, suppositories, and lollipops

How are they abused?

➔ Narcotics/opioids can be swallowed, smoked, sniffed, or injected.

What is their effect on the mind?

Besides their medical use, narcotics/opioids produce a general sense of well-being by reducing tension, anxiety, and aggression. These effects are helpful in a therapeutic setting but contribute to the drugs' abuse. Narcotic/opioid use comes with a variety of unwanted effects, including drowsiness, inability to concentrate, and apathy.

Psychological dependence

Use can create psychological dependence. Long after the physical need for the drug has passed, the addict may continue to think and talk about using drugs and feel overwhelmed coping with daily activities. Relapse is common if there are not changes to the physical environment or the behavioral motivators that prompted the abuse in the first place.

What is their effect on the body?

Narcotics/opioids are prescribed by doctors to treat pain, suppress cough, cure diarrhea, and put people to sleep. Effects depend heavily on the dose, how it's taken, and previous exposure to the drug. Negative effects include:

- ➔ Slowed physical activity, constriction of the pupils, flushing of the face and neck, constipation, nausea, vomiting, and slowed breathing

As the dose is increased, both the pain relief and the harmful effects become more pronounced. Some of these preparations are so potent that a single dose can be lethal to an inexperienced user. However, except in cases of extreme intoxication, there is no loss of motor coordination or slurred speech.

Physical dependence and withdrawal

Physical dependence is a consequence of chronic opioid use, and withdrawal takes place when drug use is discontinued. The intensity and character of the physical symptoms experienced during withdrawal are directly related to the particular drug used, the total daily dose, the interval between doses, the duration of use and the health and personality of the user. These symptoms usually appear shortly before the time of the next scheduled dose.

Early withdrawal symptoms often include:

- ➔ Watery eyes, runny nose, yawning, and sweating

As the withdrawal worsens, symptoms can include:

- ➔ Restlessness, irritability, loss of appetite, nausea, tremors, drug craving, severe depression, vomiting, increased heart rate and blood pressure, and chills alternating with flushing and excessive sweating

However, without intervention, the withdrawal usually runs its course, and most physical symptoms disappear within days or weeks, depending on the particular drug.

What are their overdose effects?

Overdoses of narcotics are not uncommon and can be fatal. Physical signs of narcotics/opioid overdose include:

- ➔ Constricted (pinpoint) pupils, cold clammy skin, confusion, convulsions, extreme drowsiness, and slowed breathing

Which drugs cause similar effects?

With the exception of pain relief and cough suppression, most central nervous system depressants (like barbiturates, benzodiazepines, and alcohol) have similar effects, including slowed breathing, tolerance, and dependence.

What is their legal status in the United States?

Narcotics/opioids are controlled substances that vary from Schedule I to Schedule V, depending on their medical usefulness, abuse potential, safety, and drug dependence profile. Schedule I narcotics, like heroin, have no medical use in the U.S. and are illegal to distribute, purchase, or use outside of medical research.

Heroin

WHAT IS HEROIN?

Heroin is a highly addictive drug and the most rapidly acting of the opiates.

WHAT IS ITS ORIGIN?

Heroin is processed from morphine, a naturally occurring substance extracted from the seed pod of certain varieties of poppy plants grown in:

- Southeast Asia (Thailand, Laos, and Myanmar (Burma)), Southwest Asia (Afghanistan and Pakistan), Mexico, and Colombia

It comes in several forms, the main one being "black tar" from Mexico (found primarily in the western United States) and white heroin from Colombia (primarily sold on the East Coast).

What are common street names?

Common street names for heroin include:

- Big H, Black Tar, Chiva, Hell Dust, Horse, Negra, Smack, and Thunder

What does it look like?

Heroin is typically sold as a white or brownish powder, or as the black sticky substance known on the streets as "black tar heroin." Although purer heroin is becoming more common, most street heroin is "cut" with other drugs or with substances such as sugar, starch, powdered milk, or quinine.

How is it abused?

Heroin can be injected, smoked, or sniffed/snorted. High purity heroin is usually snorted or smoked.

What is its effect on the mind?

Because it enters the brain so rapidly, heroin is particularly addictive, both psychologically and physically. Heroin abusers report feeling a surge of euphoria or "rush," followed by a twilight state of sleep and wakefulness.

Heroin

What is its effect on the body?

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. As higher doses of the drug are used over time, physical dependence and addiction to the drug develop.

Physical symptoms of heroin use include:

- Drowsiness, respiratory depression, constricted pupils, nausea, a warm flushing of the skin, dry mouth, and heavy extremities

What are its overdose effects?

Because heroin abusers do not know the actual strength of the drug or its true contents, they are at a high risk of overdose or death.

The effects of a heroin overdose are:

- Slow and shallow breathing, blue lips and fingernails, clammy skin, convulsions, coma, and possible death

Which drugs cause similar effects?

Other opioids such as OxyContin®, Vicodin®, codeine, morphine, methadone, and fentanyl can cause similar effects as heroin.

What is its legal status in the United States?

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

Hydromorphone

WHAT IS HYDROMORPHONE?

Hydromorphone belongs to a class of drugs called "opioids," which includes morphine. It has an analgesic potency of two to eight times that of morphine, but has a shorter duration of action and greater sedative properties.

WHAT IS ITS ORIGIN?

Hydromorphone is legally manufactured and distributed in the United States. However, abusers can obtain hydromorphone from forged prescriptions, "doctor-shopping," theft from pharmacies, and from friends and acquaintances.

What are the street names?

Common street names include:

➔ D, Dillies, Dust, Footballs, Juice, and Smack

What does it look like?

Hydromorphone comes in:

➔ Tablets, rectal suppositories, oral solutions, and injectable formulations

How is it abused?

Users may abuse hydromorphone tablets by ingesting them. Injectable solutions, as well as tablets that have been crushed and dissolved in a solution may be injected as a substitute for heroin.

What is its effect on the mind?

When used as a drug of abuse, and not under a doctor's supervision, hydromorphone is taken to produce feelings of euphoria, relaxation, sedation, and reduced anxiety. It may also cause mental clouding, changes in mood, nervousness, and restlessness. It works centrally (in the brain) to reduce pain and suppress cough. Hydromorphone use is associated with both physiological and psychological dependence.

What is its effect on the body?

Hydromorphone may cause:

➔ Constipation, pupillary constriction, urinary retention, nausea, vomiting, respiratory depression, dizziness, impaired coordination, loss of appetite, rash, slow or rapid heartbeat, and changes in blood pressure

What are its overdose effects?

Acute overdose of hydromorphone can produce:

➔ Severe respiratory depression, drowsiness progressing to stupor or coma, lack of skeletal muscle tone, cold and clammy skin, constricted pupils, and reduction in blood pressure and heart rate

Severe overdose may result in death due to respiratory depression.

Which drugs cause similar effects?

Drugs that have similar effects include:

➔ Heroin, morphine, hydrocodone, fentanyl, and oxycodone

What is its legal status in the United States?

Hydromorphone is a Schedule II drug under the Controlled Substances Act with an accepted medical use as a pain reliever. Hydromorphone has a high potential for abuse and use may lead to severe psychological or physical dependence.

Methadone

WHAT IS METHADONE?

Methadone is a synthetic (man-made) narcotic.

WHAT IS ITS ORIGIN?

German scientists synthesized methadone during World War II because of a shortage of morphine. Methadone was introduced into the United States in 1947 as an analgesic (Dolophinel).

What are common street names?

Common street names include:

➔ Amidone, Chocolate Chip Cookies, Fizzies, Maria, Pastora, Salvia, Street Methadone, and Wafer

What does it look like?

Methadone is available as a tablet, disc, oral solution, or injectable liquid. Tablets are available in 5 mg and 10 mg formulations. As of January 1, 2008, manufacturers of methadone hydrochloride tablets 40 mg (dispersible) have voluntarily agreed to restrict distribution of this formulation to only those facilities authorized for detoxification and maintenance treatment of opioid addiction, and hospitals. Manufacturers will instruct their wholesale distributors to discontinue supplying this formulation to any facility not meeting the above criteria.

How is it abused?

Methodone can be swallowed or injected.

What is its effect on the mind?

Abuse of methadone can lead to psychological dependence.

What is its effect on the body?

When an individual uses methadone, he/she may experience physical symptoms like sweating, itchy skin, or sleepiness. Individuals who abuse methadone risk becoming tolerant of and physically dependent on the drug.

When use is stopped, individuals may experience withdrawal symptoms including:

➔ Anxiety, muscle tremors, nausea, diarrhea, vomiting, and abdominal cramps

What are its overdose effects?

The effects of a methadone overdose are:

➔ Slow and shallow breathing, blue fingernails and lips, stomach spasms, clammy skin, convulsions, weak pulse, coma, and possible death

Which drugs cause similar effects?

Although chemically unlike morphine or heroin, methadone produces many of the same effects.

What is its legal status in the United States?

Methadone is a Schedule II drug under the Controlled Substances Act. While it may legally be used under a doctor's supervision, its non-medical use is illegal.

Methadone

Morphine

WHAT IS MORPHINE?

Morphine is a non-synthetic narcotic with a high potential for abuse and is the principal constituent of opium. It is one of the most effective drugs known for the relief of severe pain.

WHAT IS ITS ORIGIN?

In the United States, a small percentage of the morphine obtained from opium is used directly for pharmaceutical products. The remaining morphine is processed into codeine and other derivatives.

What are common street names?

Common street names include:

➔ Dreamer, Emsel, First Line, God's Drug, Hows, M.S., Mister Blue, Morf, Morpho, and Unkie

What does it look like?

Morphine is marketed under generic and brand name products, including:

➔ MS-Contin®, Oramorph SR®, MSIR®, Roxanol®, Kadian®, and RMS®

How is it abused?

Traditionally, morphine was almost exclusively used by injection, but the variety of pharmaceutical forms that it is marketed as today support its use by oral and other routes of administration.

Forms include:

➔ Oral solutions, immediate-and sustained-release tablets and capsules, suppositories, and injectable preparations

Those dependent on morphine prefer injection because the drug enters the blood stream more quickly.

What is its effect on the mind?

Morphine's effects include euphoria and relief of pain. Chronic use of morphine results in tolerance and physical and psychological dependence.

What is its effect on the body?

Morphine use results in relief from physical pain, decrease in hunger, and inhibition of the cough reflex.

What are its overdose effects?

Overdose effects include:

➔ Cold, clammy skin, lowered blood pressure, sleepiness, slowed breathing, slow pulse rate, coma, and possible death

Which drugs cause similar effects?

Drugs causing similar effects as morphine include:

➔ Opium, codeine, heroin, methadone, hydrocodone, fentanyl, and oxycodone

What is its legal status in the United States?

Morphine is a Schedule II narcotic under the Controlled Substances Act.

Poppy papaver somniferum, the source for all non-synthetic opioids

Opium

WHAT IS OPIUM?

Opium is a highly addictive non-synthetic narcotic that is extracted from the poppy plant, Papaver somniferum. The opium poppy is the key source for many narcotics, including morphine, codeine, and heroin.

WHAT IS ITS ORIGIN?

The poppy plant, Papaver somniferum, is the source of opium. It was grown in the Mediterranean region as early as 5,000 B.C., and has since been cultivated in a number of countries throughout the world. The milky fluid that seeps from its incisions in the unripe seed pod of this poppy has been scraped by hand and air-dried to produce what is known as opium.

A more modern method of harvesting for pharmaceutical use is by the industrial poppy straw process of extracting alkaloids from the mature dried plant (concentrate of poppy straw). All opium and poppy straw used for pharmaceutical products are imported into the United States from legitimate sources in regulated countries.

What are common street names?

Common street names include:

➔ Ah-pen-yen, Aunti, Aunti Emma, Big O, Black Pill, Chandoo, Chandu, Chinese Molasses, Chinese Tobacco, Dopium, Dover's Powder, Dream Gun, Dream Stick, Dreams, Easing Powder, Fi-do-nie, Gee, God's Medicine, Gondola, Goric, Great Tobacco, Guma, Hop/hops, Joy Plant, Midnight Oil, Mira, O, O.P., Ope, Pen Yan, Pin Gon, Pox, Skee, Toxy, Toys, When-shee, Ze, and Zero

What does it look like?

Opium can be a liquid, solid, or powder, but most poppy straw concentrate is available commercially as a fine brownish powder.

How is it abused?

Opium can be smoked, intravenously injected, or taken in pill form. Opium is also abused in combination with other drugs. For example, "Black" is a combination of marijuana, opium, and methamphetamine, and "Buddha" is potent marijuana spiked with opium.

What is its effect on the mind?

The intensity of opium's euphoric effects on the brain depends on the dose and route of administration. It works quickly when smoked because the opiate chemicals pass into the lungs, where they are quickly absorbed and then sent to the brain. An opium "high" is very similar to a heroin "high"; users experience a euphoric rush, followed by relaxation and the relief of physical pain.

What is its effect on the body?

Opium inhibits muscle movement in the bowels leading to constipation. It also can dry out the mouth and mucous membranes in the nose. Opium use leads to physical and psychological dependence, and can lead to overdose.

What are its overdose effects?

Overdose effects include:

➔ Slow breathing, seizures, dizziness, weakness, loss of consciousness, coma, and possible death

Which drugs cause similar effects?

Drugs that cause similar effects include:

➔ Morphine, codeine, heroin, methadone, hydroquinone, fentanyl, and oxycodone

What is its legal status in the United States?

Opium is a Schedule II drug under the Controlled Substances Act. Most opioids are Schedule II, III, IV, or V drugs. Some drugs that are derived from opium, such as heroin, are Schedule I drugs.

Oxycodone

WHAT IS OXYCODONE?

Oxycodone is a semi-synthetic narcotic analgesic and historically has been a popular drug of abuse among the narcotic abusing population.

WHAT IS ITS ORIGIN?

Oxycodone is synthesized from thebaine, a constituent of the poppy plant.

What are common street names?

Common street names for Oxycodone include:

➔ Hillbilly Heroin, Kicker, OC, Ox, Roxy, Perc, and Oxy

What does it look like?

Oxycodone is marketed alone as OxyContin® in 10, 20, 40 and 80 mg controlled-release tablets and other immediate-release capsules like 5 mg OxyIR®. It is also marketed in combination products with aspirin such as Percodan® or acetaminophen such as Roxicet®.

How is it abused?

Oxycodone is abused orally or intravenously. The tablets are crushed and sniffed or dissolved in water and injected. Others heat a tablet that has been placed on a piece of foil then inhale the vapors.

What is its effect on the mind?

Euphoria and feelings of relaxation are the most common effects of oxycodone on the brain, which explains its high potential for abuse.

What is its effect on the body?

Physiological effects of oxycodone include:

➔ Pain relief, sedation, respiratory depression, constipation, papillary constriction, and cough suppression. Extended or chronic use of oxycodone containing acetaminophen may cause severe liver damage.

What are its overdose effects?

Overdose effects include:

➔ Extreme drowsiness, muscle weakness, confusion, cold and clammy skin, pinpoint pupils, shallow breathing, slow heart rate, fainting, coma, and possible death

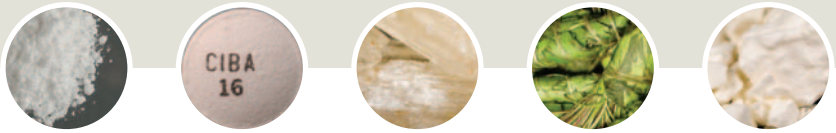
Which drugs cause similar effects?

Drugs that cause similar effects to Oxycodone include:

➔ Opium, codeine, heroin, methadone, hydrocodone, fentanyl, and morphine

What is its legal status in the United States?

Oxycodone products are in Schedule II of the federal Controlled Substances Act of 1970.



VI. Stimulants

WHAT ARE STIMULANTS?

Stimulants speed up the body's systems. This class of drugs includes:

➔ Prescription drugs such as amphetamines [Adderall® and Dexedrine®], methylphenidate [Concerta® and Ritalin®], diet aids [such as Didrex®, Bontril®, Preludin®, Fastin®, Adipex P®, Ionomin®, and Meridia®] and illicitly produced drugs such as methamphetamine, cocaine, and methcathinone.

WHAT IS THEIR ORIGIN?

Stimulants are diverted from legitimate channels and clandestinely manufactured exclusively for the illicit market.

Ritalin® SR 20mg tablet

Crack Cocaine

What are common street names?

Common street names include:

➔ Bennies, Black Beauties, Cat, Coke, Crank, Crystal, Flake, Ice, Pellets, R-Ball, Skippy, Snow, Speed, Uppers, and Vitamin R

What do they look like?

Stimulants come in the form of:

➔ Pills, powder, rocks, and injectable liquids

How are they abused?

Stimulants can be pills or capsules that are swallowed. Smoking, snorting, or injecting stimulants produces a sudden sensation known as a "rush" or a "flash."

Abuse is often associated with a pattern of binge use — sporadically consuming large doses of stimulants over a short period of time. Heavy users may inject themselves

every few hours, continuing until they have depleted their drug supply or reached a point of delirium, psychosis, and physical exhaustion. During heavy use, all other interests become secondary to recreating the initial euphoric rush.

What is their effect on the mind?

When used as drugs of abuse and not under a doctor's supervision, stimulants are frequently taken to:

- ➔ Produce a sense of exhilaration, enhance self esteem, improve mental and physical performance, increase activity, reduce appetite, extend wakefulness for prolonged period, and "get high"

Chronic, high-dose use is frequently associated with agitation, hostility, panic, aggression, and suicidal or homicidal tendencies.

Paranoia, sometimes accompanied by both auditory and visual hallucinations, may also occur.

Tolerance, in which more and more drug is needed to produce the usual effects, can develop rapidly, and psychological dependence occurs. In fact, the strongest psychological dependence observed occurs with the more potent stimulants, such as amphetamine, methylphenidate, methamphetamine, cocaine and methcathinone.

Abrupt cessation is commonly followed by depression, anxiety, drug craving, and extreme fatigue, known as a "crash."

What is their effect on the body?

Stimulants are sometimes referred to as uppers and reverse the effects of fatigue on both mental and physical tasks. Therapeutic levels of stimulants can produce exhilaration, extended wakefulness, and loss of appetite. These effects are greatly intensified when large doses of stimulants are taken.

Taking too large a dose at one time or taking large doses over an extended period of time may cause such physical side effects as:

- ➔ Dizziness, tremors, headache, flushed skin, chest pain with palpitations, excessive sweating, vomiting, and abdominal cramps

What are their overdose effects?

In overdose, unless there is medical intervention, high fever, convulsions, and cardiovascular collapse may precede death. Because accidental death is partially due to the effects of stimulants on the body's cardiovascular and temperature-regulating systems, physical exertion increases the hazards of stimulant use.

Which drugs cause similar effects?

Some hallucinogenic substances, such as Ecstasy, have a stimulant component to their activity.

What is their legal status in the United States?

Many stimulants have a legitimate medical use for the treatment of conditions such as obesity, narcolepsy, and attention deficit and hyperactivity disorder. Such stimulants vary in their level of control from Schedules II to IV, depending on their potential for abuse and dependence.

A number of stimulants have no medical use in the United States but have a high potential for abuse. These stimulants are controlled in Schedule I. Some prescription stimulants are not controlled, and some stimulants like tobacco and caffeine don't require a prescription — though society's recognition of their adverse effects has resulted in a proliferation of caffeine-free products and efforts to discourage cigarette smoking.

Stimulant chemicals in over-the-counter products, such as ephedrine and pseudoephedrine can be found in allergy and cold medicine. As required by The Combat Methamphetamine Epidemic Act of 2005, a retail outlet must store these products out of reach of customers, either behind the counter or in a locked cabinet. Regulated sellers are required to maintain a written or electronic form of a logbook to record sales of these products. In order to purchase these products, customers must now show a photo identification issued by a state or federal government. They are also required to write or enter into the logbook: their name, signature, address, date, and time of sale. In addition to the above, there are daily and monthly sales limits set for customers.

Amphetamines

WHAT ARE AMPHETAMINES?

Amphetamines are stimulants that speed up the body's system. Many are legally prescribed and used to treat attention-deficit hyperactivity disorder (ADHD).

WHAT IS THEIR ORIGIN?

Amphetamine was first marketed in the 1930s as Benzedrine® in an over-the-counter inhaler to treat nasal congestion. By 1937 amphetamine was available by prescription in tablet form and was used in the treatment of the sleeping disorder, narcolepsy, and ADHD.

Over the years, the use and abuse of clandestinely produced amphetamines have spread. Today, clandestine laboratory production of amphetamines has mushroomed, and the abuse of the drug has increased dramatically.

What are common street names?

Common street names include:

➔ Bennies, Black Beauties, Crank, Ice, Speed, and Uppers

What do they look like?

Amphetamines can look like pills or powder. Common prescription amphetamines include methylphenidate (Ritalin® or Ritalin SR®), amphetamine and dextroamphetamine (Adderall®), and dextroamphetamine (Dexedrine®).

How are they abused?

Amphetamines are generally taken orally or injected. However, the addition of "ice," the slang name of crystallized methamphetamine hydrochloride, has promoted smoking as another mode of administration. Just as "crack" is smokable cocaine, "ice" is smokable methamphetamine.

What is their effect on the mind?

The effects of amphetamines and methamphetamine are similar to cocaine, but their onset is slower and their duration is longer. In contrast to cocaine, which is quickly removed from the brain and is almost completely metabolized, methamphetamine remains in the central nervous system longer, and a larger percentage of the drug remains unchanged in the body, producing prolonged stimulant effects.

Chronic abuse produces a psychosis that resembles schizophrenia and is characterized by: Paranoia, picking at the skin, preoccupation with one's own thoughts, and auditory and visual hallucinations. Violent and erratic behavior is frequently seen among chronic abusers of amphetamines and methamphetamine.

What is their effect on the body?

Physical effects of amphetamine use include:

➔ Increased blood pressure and pulse rates, insomnia, loss of appetite, and physical exhaustion

What are their overdose effects?

Overdose effects include:

➔ Agitation, increased body temperature, hallucinations, convulsions, and possible death

Which drugs cause similar effects?

Drugs that cause similar effects include:

➔ Dexmethylphendiate, phentermine, benzphetamine, phendimetrazine, cocaine, crack, methamphetamine, and khat

What is their legal status in the United States?

Amphetamines are Schedule II stimulants, which means that they have a high potential for abuse and limited medical uses. Pharmaceutical products are available only through a prescription that cannot be refilled.

Cocaine

WHAT IS COCAINE?

Cocaine is an intense, euphoria-producing stimulant drug with strong addictive potential.

WHAT IS ITS ORIGIN?

Cocaine is derived from coca leaves grown in Bolivia, Peru, and Colombia. The cocaine manufacturing process takes place in remote jungle labs where the raw product undergoes a series of chemical transformations. Colombia produces about 90% of the cocaine powder reaching the United States. According to the 2005 Colombia Threat Assessment, 90% of the cocaine shipped to the United States comes from the Central America-Mexico corridor.

What are common street names?

Common street names include:

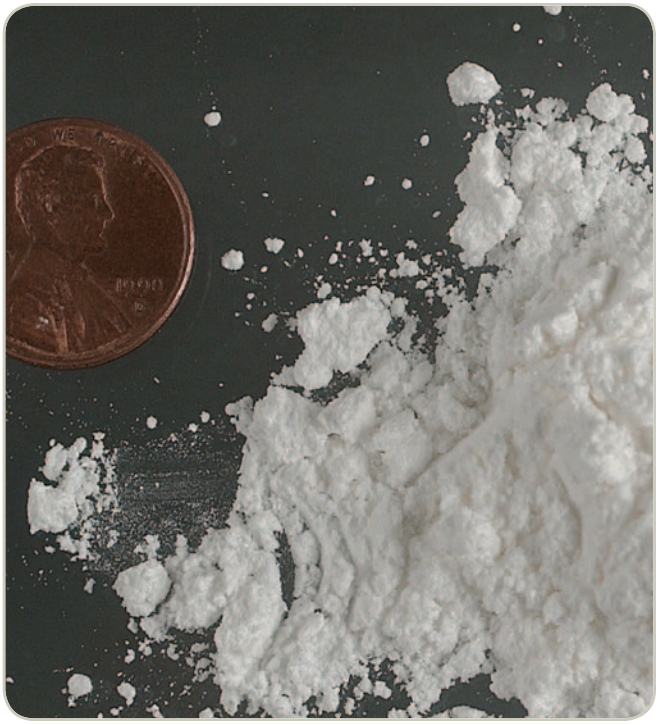
➔ Coca, Coke, Crack, Flake, Snow, and Soda Cot

What does it look like?

Cocaine is usually distributed as a white, crystalline powder. Cocaine is often diluted ("cut") with a variety of substances, the most common of which are sugars and local anesthetics. It is "cut" to stretch the amount of the product and increase profits for dealers. In contrast, cocaine base (crack) looks like small, irregularly shaped chunks (or "rocks") of a whitish solid.

How is it abused?

Powdered cocaine can be snorted or injected into the veins after dissolving in water. Cocaine base (crack) is smoked, either alone or on marijuana or tobacco. Cocaine is also abused in combination with an opiate, like heroin, a practice known as "speedballing." Although injecting into veins or muscles, snorting, and smoking are the common ways of using cocaine, all mucous membranes readily absorb cocaine. Cocaine users typically binge on the drug until they are exhausted or run out of cocaine.



Cocaine powder

What is its effect on the mind?

The intensity of cocaine's euphoric effects depends on how quickly the drug reaches the brain, which depends on the dose and method of abuse. Following smoking or intravenous injection, cocaine reaches the brain in seconds, with a rapid buildup in levels. This results in a rapid-onset, intense euphoric effect known as a "rush."

By contrast, the euphoria caused by snorting cocaine is less intense and does not happen as quickly due to the slower build-up of the drug in the brain. Other effects include increased alertness and excitation, as well as restlessness, irritability, and anxiety.

Tolerance to cocaine's effects develops rapidly, causing users to take higher and higher doses. Taking high doses of cocaine or prolonged use, such as binging, usually causes paranoia. The crash that follows euphoria is characterized by mental and physical exhaustion, sleep, and depression lasting several days. Following the crash, users experience a craving to use cocaine again.

What is its effect on the body?

Physiological effects of cocaine include increased blood pressure and heart rate, dilated pupils, insomnia, and loss of appetite. The widespread abuse of highly pure street cocaine has led to many severe adverse health consequences such as:

➔ Cardiac arrhythmias, ischemic heart conditions, sudden cardiac arrest, convulsions, strokes, and death

In some users, the long-term use of inhaled cocaine has led to a unique respiratory syndrome, and chronic snorting of cocaine has led to the erosion of the upper nasal cavity.

Which drugs cause similar effects?

Other stimulants, such as methamphetamine, cause effects similar to cocaine that vary mainly in degree.

What is its legal status in the United States?

Cocaine is a Schedule II drug under the Controlled Substances Act, meaning it has a high potential for abuse and limited medical usage. Cocaine hydrochloride solution (4% and 10%) is used primarily as a topical local anesthetic for the upper respiratory tract. It also is used to reduce bleeding of the mucous membranes in the mouth, throat, and nasal cavities. However, better products have been developed for these purposes, and cocaine is rarely used medically in the United States.

Cocaine bricks, seized by DEA

Khat

WHAT IS KHAT?

Khat is a flowering evergreen shrub that is abused for its stimulant-like effect. Khat has two active ingredients, cathine and cathinone.

WHAT IS ITS ORIGIN?

Khat is native to East Africa and the Arabian Peninsula, where the use of it is an established cultural tradition for many social situations

Khat plant

What are common street names?

Common street names for Khat include:

➔ Abyssinian Tea, African Salad, Catha, Chat, Kat, and Oat

What does it look like?

Khat is a flowering evergreen shrub. Khat that is sold and abused is usually just the leaves, twigs, and shoots of the Khat shrub.

How is it abused?

Khat is typically chewed like tobacco, then retained in the cheek and chewed intermittently to release the active drug, which produces a stimulant-like effect. Dried Khat leaves can be made into tea or a chewable paste, and Khat can also be smoked and even sprinkled on food.

What is its effect on the mind?

Khat can induce manic behavior with:

➔ Grandiose delusions, paranoia, nightmares, hallucinations, and hyperactivity

Chronic Khat abuse can result in violence and suicidal depression.

What is its effect on the body?

Khat causes an immediate increase in blood pressure and heart rate. Khat can also cause a brown staining of the teeth, insomnia, and gastric disorders. Chronic abuse of Khat can cause physical exhaustion.

What are its overdose effects?

The dose needed to constitute an overdose is not known, however it has historically been associated with those who have been long-term chewers of the leaves. Symptoms of toxicity include:

➔ Delusions, loss of appetite, difficulty with breathing, and increases in both blood pressure and heart rate

Additionally, there are reports of liver damage (chemical hepatitis) and of cardiac complications, specifically myocardial infarctions. This mostly occurs among long-term chewers of khat or those who have chewed too large a dose.

Which drugs cause similar effects?

Khat's effects are similar to other stimulants, such as cocaine and methamphetamine.

What is its legal status in the United States?

The chemicals found in khat are controlled under the Controlled Substances Act. Cathine is a Schedule IV stimulant, and cathinone is a Schedule I stimulant under the Controlled Substances Act, meaning that it has a high potential for abuse, no currently accepted medical use in treatment in the United States, and a lack of accepted safety for use under medical supervision.

Methamphetamine

WHAT IS METHAMPHETAMINE?

Methamphetamine (meth) is a stimulant. The FDA-approved brand-name medication is Desoxyn®.

WHAT IS ITS ORIGIN?

Mexican drug trafficking organizations have become the primary manufacturers and distributors of methamphetamine to cities throughout the United States, including in Hawaii. Domestic clandestine laboratory operators also produce and distribute meth but usually on a smaller scale. The methods used depend on the availability of precursor chemicals.

Currently, meth is mainly made with diverted products that contain pseudoephedrine. The Combat Methamphetamine Epidemic Act of 2005 requires retailers of non-prescription products containing pseudoephedrine, ephedrine, or phenylpropanolamine to place these products behind the counter or in a locked cabinet. Consumers must show identification and sign a logbook for each purchase.

Methamphetamine in finished form

What are common street names?

Common street names include:

- Batu, Bikers Coffee, Black Beauties, Chalk, Chicken Feed, Crank, Crystal, Glass, Go-Fast, Hiropon, Ice, Meth, Methlies Quick, Poor Man's Cocaine, Shabu, Shards, Speed, Stove Top, Tina, Trash, Tweak, Uppers, Ventana, Vidrio, Yaba, and Yellow Bam

What does it look like?

Regular meth is a pill or powder. Crystal meth resembles glass fragments or shiny blue-white "rocks" of various sizes.

How is it abused?

Meth is swallowed, snorted, injected, or smoked. To intensify the effects, users may take higher doses of the drug, take it more frequently, or change their method of intake.

In some cases, meth abusers go without food and sleep while taking part in a form of binging known as a "run." Meth users on a "run" inject as much as a gram of the drug every two to three hours over several days until they run out of meth or become too disorganized to continue.

What is its effect on the mind?

Meth is a highly addictive drug with potent central nervous system (CNS) stimulant properties.

Those who smoke or inject it report a brief, intense sensation, or rush. Oral ingestion or snorting produces a long-lasting high instead of a rush, which reportedly can continue for as long as half a day. Both the rush and the high are believed to result from the release of very high levels of the neurotransmitter dopamine into areas of the brain that regulate feelings of pleasure. Long-term meth use results in many damaging effects, including addiction.

Methamphetamine in finished form

Chronic meth abusers exhibit violent behavior, anxiety, confusion, insomnia, and psychotic features including paranoia, aggression, visual and auditory hallucinations, mood disturbances, and delusions — such as the sensation of insects creeping on or under the skin.

Such paranoia can result in homicidal or suicidal thoughts. Researchers have reported that as much as 50% of the dopamine-producing cells in the brain can be damaged after prolonged exposure to relatively low levels of meth. Researchers also have found that serotonin-containing nerve cells may be damaged even more extensively.

What is its effect on the body?

Taking even small amounts of meth can result in:

- ➔ Increased wakefulness, increased physical activity, decreased appetite, rapid breathing and heart rate, irregular heartbeat, increased blood pressure, and hyperthermia (overheating)

High doses can elevate body temperature to dangerous, sometimes lethal, levels, and cause convulsions and even cardiovascular collapse and death. Meth abuse may also cause extreme anorexia, memory loss, and severe dental problems.

What are its overdose effects?

High doses may result in death from stroke, heart attack, or multiple organ problems caused by overheating.

Which drugs cause similar effects?

Cocaine and potent stimulant pharmaceuticals, such as amphetamines and methylphenidate, produce similar effects.

What is its legal status in the United States?

Methamphetamine is a Schedule II stimulant under the Controlled Substances Act, which means that it has a high potential for abuse and limited medical use. It is available only through a prescription that cannot be refilled. Today there is only one legal meth product, Desoxyn®. It is currently marketed in 5-milligram tablets and has very limited use in the treatment of obesity and attention deficit hyperactivity disorder (ADHD).

VII. Depressants

WHAT ARE DEPRESSANTS?

Depressants will put you to sleep, relieve anxiety and muscle spasms, and prevent seizures.

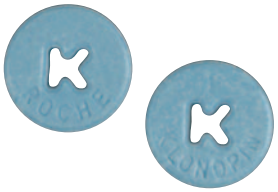
Barbiturates are older drugs and include butalbital (Fiorina®), phenobarbital, Pentothal®, Seconal® and Nembutal®. You can rapidly develop dependence on and tolerance to barbiturates, meaning you need more and more of them to feel and function normally. This makes them unsafe, increasing the likelihood of coma or death.

Benzodiazepines were developed to replace barbiturates, though they still share many of the undesirable side effects. Some examples are Valium®, Xanax®, Halcion®, Ativan®, Klonopin® and Restoril®. Rohypnol® is a benzodiazepine that is not manufactured or legally marketed in the United States, but it is used illegally.

Ambien® and Sonata® are sedative-hypnotic medications approved for the short-term treatment of insomnia that share many of the properties of benzodiazepines. Other CNS depressants include meprobamate, methaqualone (Quaalude®), and the illicit drug GHB.

WHAT IS THEIR ORIGIN?

Generally, legitimate pharmaceutical products are diverted to the illicit market. Teens can obtain depressants from the family medicine cabinet, friends, family members, the Internet, doctors, and hospitals.



Klonopin® 5mg tablet

Blister pack of Rohypnol® tablets

What are common street names?

Common street names for depressants include:

➔ Barbs, Benzos, Downers, Georgia Home Boy, GHB, Grievous Bodily Harm, Liquid X, Nerve Pills, Phennies, R2, Reds, Roofies, Rophies, Tranks, and Yellows

What do they look like?

Depressants come in the form of pills, syrups, and injectable liquids.

How are they abused?

Individuals abuse depressants to experience euphoria. Depressants are also used with other drugs to add to the other drugs' high or to deal with their side effects. Abusers take higher doses than people taking the drugs under a doctor's supervision for therapeutic purposes. Depressants like GHB and Rohypnol® are also misused to facilitate sexual assault.

What is their effect on the mind?

Depressants used therapeutically do what they are prescribed for:

- ➔ to put you to sleep, relieve anxiety and muscle spasms, and prevent seizures

They also:

- ➔ Cause amnesia, leaving no memory of events that occur while under the influence, reduce your reaction time, impair mental functioning and judgment, and cause confusion

Long-term use of depressants produces psychological dependence and tolerance.

What is their effect on the body?

Some depressants can relax the muscles. Unwanted physical effects include:

- ➔ Slurred speech, loss of motor coordination, weakness, headache, lightheadedness, blurred vision, dizziness, nausea, vomiting, low blood pressure, and slowed breathing

Prolonged use of depressants can lead to physical dependence even at doses recommended for medical treatment. Unlike barbiturates, large doses of benzodiazepines are rarely fatal unless combined with other drugs or alcohol. But unlike the withdrawal syndrome seen with most other drugs of abuse, withdrawal from depressants can be life threatening.

What are their overdose effects?

High doses of depressants or use of them with alcohol or other drugs can slow heart rate and breathing enough to cause death.

Which drugs cause similar effects?

Some antipsychotics, antihistamines, and antidepressants produce sedative effects. Alcohol's effects are similar to those of depressants.

Vials containing GHB

What is their legal status in the United States?

Most depressants are controlled substances that range from Schedule I to Schedule IV under the Controlled Substances Act, depending on their risk for abuse and whether they currently have an accepted medical use. Many of the depressants have FDA-approved medical uses. Rohypnol® is not manufactured or legally marketed in the United States.

Barbiturates

WHAT ARE BARBITURATES?

Barbiturates are depressants that produce a wide spectrum of central nervous system depression from mild sedation to coma. They have also been used as sedatives, hypnotics, anesthetics, and anticonvulsants.

Barbiturates are classified as:

➔ Ultrashort, Short, Intermediate, Long-acting

WHAT IS THEIR ORIGIN?

Barbiturates were first introduced for medical use in the 1900s, and today about 12 substances are in medical use.

What are common street names?

Common street names include:

➔ Barbs, Block Busters, Christmas Trees, Goof Balls, Pinks, Red Devils, Reds & Blues, and Yellow Jackets

What do they look like?

Barbiturates come in a variety of multicolored pills and tablets. Abusers prefer the short-acting and intermediate barbiturates such as Amytal® and Seconal®.

How are they abused?

Barbiturates are abused by swallowing a pill or injecting a liquid form. Barbiturates are generally abused to reduce anxiety, decrease inhibitions, and treat unwanted effects of illicit drugs. Barbiturates can be extremely dangerous because overdoses can occur easily and lead to death.

What is their effect on the mind?

Barbiturates cause:

➔ Mild euphoria, lack of inhibition, relief of anxiety, and sleepiness

Higher doses cause:

➔ Impairment of memory, judgment, and coordination; irritability; and paranoid and suicidal ideation

Tolerance develops quickly and larger doses are then needed to produce the same effect, increasing the danger of an overdose.

What is their effect on the body?

Barbiturates slow down the central nervous system and cause sleepiness.

What are their overdose effects?

Effects of overdose include:

➔ Shallow respiration, clammy skin, dilated pupils, weak and rapid pulse, coma, and possible death

Which drugs cause similar effects?

Drugs with similar effects include:

➔ Alcohol, benzodiazepines like Valium® and Xanax®, tranquilizers, sleeping pills, Rohypnol®, and GHB

What is their legal status in the United States?

Barbiturates are Schedule II, III, and IV depressants under the Controlled Substances Act.