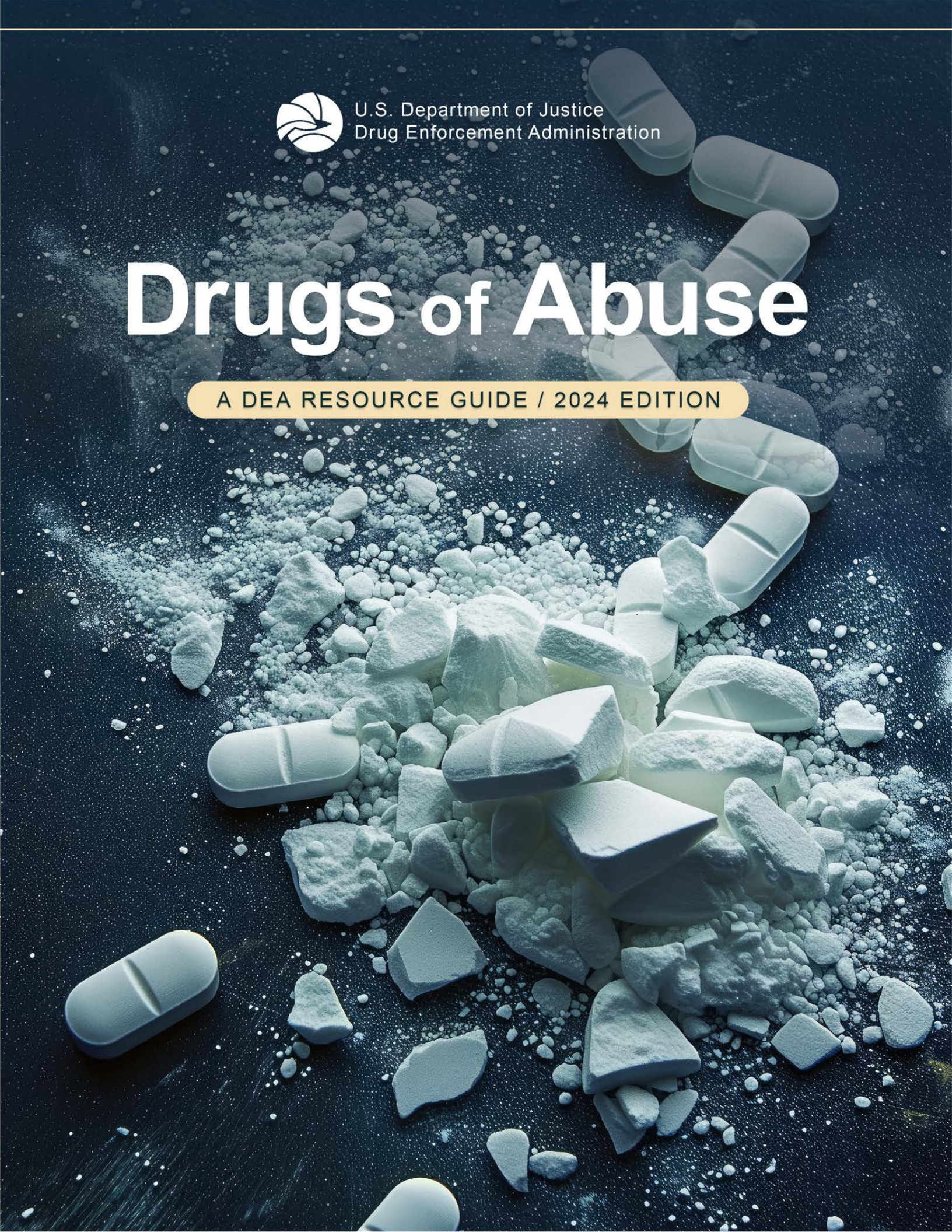
U.S. Department of Justice
Drug Enforcement Administration
Drugs of Abuse
A DEA RESOURCE GUIDE / 2024 EDITION

Drugs of Abuse

A DEA RESOURCE GUIDE

2024 Edition

PRODUCED AND PUBLISHED BY
Drug Enforcement Administration, U.S. Department of Justice

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WELCOME

TO THE LATEST EDITION OF DRUGS OF ABUSE

Education plays a critical role in preventing substance use and misuse. *Drugs of Abuse, A DEA Resource Guide,* is designed to be a reliable resource on the most commonly used and misused drugs in the United States. This comprehensive guide provides important information about the harms and consequences of drug use by describing a drug's effects on the body and mind, overdose potential, origin, legal status, and other key facts.

Drugs of Abuse also offers a list of additional drug education and prevention resources, including the DEA websites:

www.DEA.gov
www.JustThinkTwice.com, aimed at teenagers
www.GetSmartAboutDrugs.com, designed for parents, educators, and caregivers
www.CampusDrugPrevention.gov, for higher education
www.OperationPrevention.com, for opioid curricula

I. Controlled Substances Act

CONTROLLING DRUGS OR OTHER SUBSTANCES THROUGH FORMAL SCHEDULING

The Controlled Substances Act places all substances that were in some manner regulated under existing federal law into one of five schedules. This placement is based upon the substance's accepted 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 (21U.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, the Department of Health and Human Services, 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 use
- A state or local government agency
- An individual citizen

When a petition is received by DEA, the agency begins its own investigation of the drug. 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 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 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 DEA with respect to scientific and medical matters and form a part of the scheduling decision.

Once 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 also 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, flualprazolam, and etizolam.

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 products with aspirin or acetaminophen, 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 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 DEA and may also request a hearing with DEA. If no hearing is requested, 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, 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 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 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 two years with a possible extension of up to one year 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 Analogs

Controlled substance analogs are substances that are not formally controlled substances, but may be found in illicit trafficking. They are structurally and 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 may be 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, and its validity can be verified online through the Diversion Control Division website at www.deadiversion.usdoj.gov. 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, imported, exported, received, delivered, distributed, dispensed, or otherwise disposed. Each substance must be physically inventoried every two years. Some limited exceptions to the recordkeeping requirements 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 first receive a special order 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. 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 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 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.

One benefit of using the CSOS system is that participants who are registered in other schedules in addition to Schedule II can then use this same system to also order those other controlled substances.

Another benefit of the DEA Form 222 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, but both the supplier and the purchaser must still maintain records of all transactions involving these controlled substances and those records must contain specific information required by DEA regulation.

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. It enables 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 United States Food and Drug Administration. 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 any time 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 and specific List I chemicals (pseudoephedrine, ephedrine, and phenylpropanolamine) that may be produced in the United States in any given calendar year for legitimate medical, scientific and research needs, inventory, and lawful exports. By utilizing available data on sales and inventories of these controlled substances, and taking into account estimates of drug usage provided by FDA, DEA establishes annual aggregate production quotas for Schedule I and II controlled substances and the List I chemicals pseudoephedrine, ephedrine, and phenylpropanolamine.

The aggregate production quotas and the assessment of annual needs are allocated among the various manufacturers who are registered to manufacture the specific substance or listed chemical. DEA also allocates the amount of bulk material that may be procured by those DEA registered manufacturers that prepare the substances 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 registrant must notify in writing the local DEA 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 registrant 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 DEA. If completing the paper version, the registrant 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 also to describe new programs intended to decrease drug abuse by holding drug users personally responsible for their illegal activities, and imposing civil penalties on those who violate drug laws.

It is important to remember these penalties are in addition to the criminal penalties drug users 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 use. 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 use, 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 drug offenders with minor infractions 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.

The law 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.

Drug Scheduling

This document is a general reference and not a comprehensive list. This list describes the basic or parent chemical and does not describe the salts, isomers and salts of isomers, esters, ethers, and derivatives which may also be controlled substances. While some positional isomers have been identified here, they are shown as examples, and the chart does not include every potential positional isomer. Cannabimimetic agents as defined under the Food and Drug Administration Safety and Innovation Act were placed into Schedule I even though they are not included in this particular list. Please visit deadiversion.usdoj.gov/schedules/schedules/html for the most recent updates to the list.

SCHEDULE I

SUBSTANCE	DEA NUMBER	NARCOTIC	OTHER NAMES
(1-(4-Fluorobenzyl)-1H-indol-3-yl)(2,2,3,3-tetramethylcyclopropyl)methanone	7014	N	FUB-144
1-(1-Phenylcyclohexyl)pyrrolidine	7458	N	PCPy, PHP, rolicyclidine
1-(2-Phenylethyl)-4-phenyl-4-acetoxypiperidine	9663	Y	PEPAP, synthetic heroin
1-(5-Fluoropentyl)-N-(2-phenylpropan-2-yl)-1H-indazole-3-carboxamide	7083	N	5F-CUMYL-PINACA; SGT-25
1-[1-(2-Thienyl)cyclohexyl]piperidine	7470	N	TCP, tenocyclidine
1-[1-(2-Thienyl)cyclohexyl]pyrrolidine	7473	N	TCPy
1-Methyl-4-phenyl-4-propionoxypiperidine	9661	Y	MPPP, synthetic heroin
2-(2,5-Dimethoxy-4-(n)-propylphenyl) ethanamine (2C-P)	7524	N	2C-P
2-(2,5-Dimethoxy-4-ethylphenyl) ethanamine (2C-E)	7509	N	2C-E (Positional Isomer: 2,5-Dimethoxy-3,4-dimethylphenethylamine (2C-G))
2-(2,5-Dimethoxy-4-methylphenyl) ethanamine (2C-D)	7508	N	2C-D
2-(2,5-Dimethoxy-4-nitro-phenyl) ethanamine (2C-N)	7521	N	2C-N
2-(2,5-Dimethoxyphenyl) ethanamine (2C-H)	7517	N	2C-H
2-(4-bromo-2,5-dimethoxyphenyl)-N-(2-methoxybenzyl) ethanamine (25B-NBOMe)	7536	N	25B-NBOMe, 2C-B-NBOMe, 25B, Cimbi-36
2-(4-Chloro-2,5-dimethoxyphenyl) ethanamine (2C-C)	7519	N	2C-C
2-(4-chloro-2,5-dimethoxyphenyl)-N-(2-methoxybenzyl) ethanamine (25C-NBOMe)	7537	N	25C-NBOMe, 2C-C-NBOMe, 25C, Cimbi-82
2-(4-Ethylthio-2,5-dimethoxyphenyl) ethanamine (2C-T-2)	7385	N	2C-T-2
2-(4-iodo-2,5-dimethoxyphenyl) ethanamine (2C-I)	7518	N	2C-I
2-(4-iodo-2,5-dimethoxyphenyl)-N-(2-methoxybenzyl) ethanamine (25I-NBOMe)	7538	N	25I-NBOMe, 2C-I-NBOMe, 25I, Cimbi-5
2-(4-Isopropylthio)-2,5-dimethoxyphenyl) ethanamine (2C-T-4)	7532	N	2C-T-4 (Positional Isomer: 2,5-Dimethoxy-4-ethylthioamphetamine (Aleph-2))
2-(ethylamino)-2-(3-methoxyphenyl)cyclohexan-1-one (methoxetamine)	7286	N	MXE

SCHEDULE I

SUBSTANCE	DEA NUMBER	NARCOTIC	OTHER NAMES
2,5-Dimethoxy-4-(n)-propylthiophenethylamine (2C-T-7)	7348	N	2C-T-7 (Positional Isomer: 2,5-Dimethoxy-4-ethylthioamphetamine (Aleph-2))
2,5-Dimethoxy-4-ethylamphetamine	7399	N	DOET
2,5-Dimethoxyamphetamine	7396	N	DMA, 2,5-DMA
2',5'-Dimethoxyfentanyl (N-(1-(2,5-dimethoxyphenethyl)piperidin-4-yl)-N-phenylpropionamide)	9861	Y	
2'-Fluoro ortho-fluorofentanyl (N-(1-(2fluorophenethyl)piperidin-4-yl)-N-(2fluorophenyl) propionamide; also known as 2'-fluoro 2fluorofentanyl)	9855	Y	
2-methoxy-N-(1-phenethylpiperidin-4-yl)-N-phenylacetamide	9825	Y	Methoxyacetyl fentanyl
3,4,5-Trimethoxyamphetamine	7390	N	TMA (Positional Isomers: 2,4,5-Trimethoxy-amphetamine (TMA-5), 2,4,6-Trimethoxy-amphetamine (TMA-6), Escaline)
3,4-Methylenedioxyamphetamine	7400	N	MDA, Love Drug
3,4-Methylenedioxymethamphetamine	7405	N	MDMA, Ecstasy, XTC
3,4-Methylenedioxy-N-ethylamphetamine	7404	N	N-ethyl MDA, MDE, MDEA
3-Fluoro-N-methylcathinone (3-FMC)	1233	N	1-(3-fluorophenyl)-2-(methylamino)propan-1-one) (Positional isomer: 2-FMC)
3-Furanyl fentanyl (N-(1-phenethylpiperidin-4-yl)-N-phenylfuran-3-carboxamide)	9860	Y	
3-Methylfentanyl	9813	Y	China White, fentanyl
3-methylmethcathinone (2-(methylamino)-1-(3-methylphenyl)propan-1-one)	1259	N	
3-Methylthiofentanyl	9833	Y	China White, fentanyl
4,4′-Dimethylaminorex (4,4′-DMAR; 4,5-dihydro-4methyl-5-(4-methylphenyl)-2-oxazolamine; 4-methyl-5(4-methylphenyl)-4,5-dihydro-1,3-oxazol-2-amine)	1595	N	
4´-methyl-alpha-pyrrolidinohexiophenone (MPHP)	7446	N	MPHP
4-Bromo-2,5-dimethoxyamphetamine	7391	N	DOB, 4-bromo-DMA
4-Bromo-2,5-dimethoxyphenethylamine	7392	N	2C-B, Nexus, has been sold as Ecstasy, i.e. MDMA
4-chloro-alpha-pyrrolidinovalerophenone (4-chloro-a-PVP)	7443	N	4-chloro-a-PVP
4-CN-CUMYL-BUTINACA (1-(4-cyanobutyl)-N-(2-phenylpropan-2-yl)-1 H-indazole-3-carboxamide)	7089	N	4-cyano-CUMYL-BUTINACA; 4-CN-CUMYL BINACA; CUMYL-4CN-BINACA; SGT-78
4-Fluoroisobutyryl fentanyl (N-(4-fluorophenyl)-N-(1-phenethylpiperidin-4-yl)isobutyramide)	9824	Y	Para-fluoroisobutyryl fentanyl
4-Fluoro-N-methylcathinone (4-FMC)	1238	N	flephedrone; 1-(4-fluorophenyl)-2-(methylamino) propan-1-one) (Positional isomer: 2-FMC)
4F-MDMB-BINACA (4F-MDMB-BUTINACA or methyl 2(1-(4-fluorobutyl)-1H-indazole-3-carboxamido)-3,3dimethylbutanoate)	7043	N	

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SUBSTANCE	DEA NUMBER	NARCOTIC	OTHER NAMES
4-Methoxyamphetamine	7411	N	PMA
4'-Methyl acetyl fentanyl (N-(1-(4methylpheneth-yl)piperidin-4-yl)-N-phenylacetamide)	9819	Y	
4-Methyl-2,5-dimethoxyamphetamine	7395	N	DOM, STP (Positional Isomer: 2,5-Dime-thoxy-3,4-dimethylphenethylamine (2C-G))
4-methyl-alpha-ethylaminopentiophenone (4-MEAP)	7245	N	4-MEAP
4-Methyl-alphapyrrolidinopropiophenone (4-MePPP)	7498	N	MePPP, 4-methyl-α-pyrrolidinopropiophenone, 1-(4-methylphenyl)-2-(pyrrolidin-1-yl)-propan-1-one)
4-Methylaminorex (cis isomer)	1590	N	U4Euh, McN-422
4-Methyl-N-ethylcathinone (4-MEC)	1249	N	2-(ethylamino)-1-(4-methylphenyl)propan-1-one) (Positional Isomers:3-methylethcathinone (3-MEC), 4-ethylmethcathinone (4-EMC), 4-methyl-buphedrone (4-MeMABP;4-MeBP), 3,4-dimeth-ylmethcathinone(3,4-DMMC),N-ethylbuphedrone (NEB),N-ethyl-N-methylcathinone(EMC))
5F-AB-PINACA (N-(1-amino-3-methyl-1-oxobu-tan-2-yl)-1-(5-fluoropentyl)-1 H-indazole-3-car-boxamide)	7025	N	
5F–ADB; 5F–MDMB–PINACA (Methyl 2-(1-(5-fluoropentyl)-1H-indazole-3-carboxam-ido)-3,3-dimethylbutanoate)	7034	N	5F-ADB, 5F-MDMB-PINACA
5F–AMB (Methyl 2-(1-(5-fluoropentyl)-1H-inda-zole-3-carboxamido)-3-methylbutanoate)	7033	N	5F-AMB
5F–APINACA, 5F–AKB48 (N-(adaman-tan-1-yl)-1-(5-fluoropentyl)-1H-indazole-3-car-boxamide)	7049	N	5F-APINACA, 5F-AKB48
5F-CUMYL-P7AICA (1-(5-fluoropen-tyl)-N-(2-phenylpropan-2-yl)-1 H-pyrrolo[2,3-b] pyridine-3-carboxamide)	7085	N	
5-Fluoro-UR-144 and XLR11 [1-(5-Fluoro-pen-tyl)1H-indol-3-yl](2,2,3,3-tetramethylcyclopropyl) methanone	7011	N	5-Fluoro-UR-144, XLR-11 and XLR11
5F-PB-22 (Quinolin-8-yl 1-(5-fluoropentyl)-1H-in-dole-3-carboxylate)	7225	N	5-Fluoro-PB-22; 5F-PB-22
5-Methoxy-3,4-methylenedioxyamphetamine	7401	N	MMDA
5-Methoxy-N,N-diisopropyltryptamine	7439	N	5-MeO-DIPT (Positional Isomer: 5-Me-thoxy-N,N-dipropyltryptamine (5-MeO-DPT))
5-Methoxy-N-N-dimethyltryptamine	7431	N	5-MeO-DMT (Positional Isomer: 4-Me-thoxy-N,N-dimethyltryptamine (4-MeO-DMT))
AB-CHMINACA (N-(1-amino-3-methyl-1-oxobutan-2-yl)-1-(cyclohexylmethyl)-1H-indazole-3-carboxamide	7031	N	AB-CHMINACA
AB-FUBINACA (N-(1-amino-3-methyl-1-oxobu-tan-2-yl)-1-(4-fluorobenzyl)-1H-indazole-3-car-boxamide)	7012	N	AB-FUBINACA
AB-PINACA (N-(1-amino-3-methyl-1-oxobutan-2-yl)-1-pentyl-1H-indazole-3-carboxamide)	7023	N	AB-PINACA

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SUBSTANCE	DEA NUMBER	NARCOTIC	OTHER NAMES
Acetorphine	9319	Y	
Acetyl Fentanyl (N-(1-phenethylpiperi-din-4-yl)-N-phenylacetamide)	9821	Y	
Acetyl-alpha-methylfentanyl	9815	Y	
Acetyldihydrocodeine	9051	Y	Acetylcodone
Acetylmethadol	9601	Y	Methadyl acetate
Acryl fentanyl (N-(1-phenethylpiperi-din-4-yl)-N-phenylacrylamide)	9811	Y	Acryloylfentanyl
ADB–FUBINACA (N-(1-amino-3,3-dimethyl-1-oxobutan-2-yl)-1-(4-fluorobenzyl)-1H-indazole-3-carboxamide)	7010	N	ADB-FUBINACA
ADB-PINACA (N-(1-amino-3,3-dimethyl-1-oxobutan-2-yl)-1-pentyl-1H-indazole-3-carbox-amide)	7035	N	ADB-PINACA
AH-7921 (3,4-dichloro-N-[(1-dimethylamino) cyclohexylmethyl]benzamide))	9551	Y	AH-7921
Allylprodine	9602	Y	
Alphacetylmethadol except levo-alphacetylmeth-adol	9603	Y	
Alpha-ethyltryptamine	7249	N	ET, Trip
Alphameprodine	9604	Y	
Alphamethadol	9605	Y	
Alpha-methylfentanyl	9814	Y	China White, fentanyl
Alpha-methylthiofentanyl	9832	Y	China White, fentanyl
Alpha-methyltryptamine	7432	N	AMT (Positional Isomer: N-Methyltryptamine)
alpha-pyrrolidinobutiophenone (α-PBP)	7546	N	1-phenyl-2-(pyrrolidin-1-yl)butan-1-one)
alpha-pyrrolidinoheptaphenone (PV8)	7548	N	PV8
alpha-pyrrolidinohexanophenone (a-PHP)	7544	N	a-PHP
alpha-pyrrolidinopentiophenone (α-PVP)	7545	N	α-pyrrolidinovalerophenone, 1-phenyl-2- (pyr-rolidin-1-yl)pentan-1-one)(Positional isomers: 4-methyl-α-pyrrolidinobutiophenone (4-MePBP), 1-phenyl-2-(piperidin-1-yl)butan-1-one)
AM2201 (1-(5-Fluoropentyl)-3-(1-naphthoyl) indole)	7201	N	AM2201
AM-694 (1-(5-Fluoropentyl)-3-(2-iodobenzoyl) indole)	7694	N	AM-694
Aminorex	1585	N	has been sold as methamphetamine
APINACA and AKB48 N-(1-Adamantyl)-1-pen-tyl-1H-indazole-3-carboxamide	7048	N	APINACA and AKB48
Benzethidine	9606	Y	
Benzylmorphine	9052	Y	
Betacetylmethadol	9607	Y	
Beta-hydroxy-3-methylfentanyl	9831	Y	China White, fentanyl

SCHEDULE I

SUBSTANCE	DEA NUMBER	NARCOTIC	OTHER NAMES
Beta-hydroxyfentanyl	9830	Y	China White, fentanyl
Beta-hydroxythiofentanyl	9836	Y	N-[1-[2-hydroxy-2-(thiophen-2-yl)ethyl]piperidin-4-yl]-N-phenylpropionamide, N-[1-[2-hydroxy-2-(2-thienyl)ethyl]-4-piperidinyl]-N-phenylpropanamide
Betameprodine	9608	Y	
Betamethadol	9609	Y	
beta-Methyl fentanyl (N-phenyl-N-(1-(2-phenylpropyl)piperidin-4-yl)propionamide; also known as β-methyl fentanyl	9856	Y	
beta'-Phenyl fentanyl (N-(1-phenethylpiperidin-4-yl)-N,3-diphenylpropanamide; also known as β'-phenyl fentanyl; 3-phenylpropanoyl fentanyl)	9842	Y	
Betaprodine	9611	Y	
Butonitazene (2-(2-(4-butoxybenzyl)-5-nitro-1Hbenzimidazol-1-yl)-N,N-diethylethan-1-amine)	9751	Y	
Bufotenine	7433	N	Mappine, N,N-dimethylserotonin
Brorphine (1-(1-(1-(4-bromophenyl)ethyl)piperidin-4-yl)1, ,3-dihydro-2H-benzo[d]imidazol-2-one)	9098	Y	1-[1-[1-(4-bromophenyl)ethyl]-4-piperidinyl]-1,3-dihydro-2H benzimidazol-2-one)
Butonitazene (2-(2-(4-butoxybenzyl)-5-nitro 1Hbenzimidazol-1-yl)-N,N-diethylethan-1-amine)	9751	Y	
Butylone	7541	N	bk-MBDB; 1-(1,3-benzodioxol-5-yl)-2-(methylamino)butan-1-one) (Positional Isomers: ethylone (bk-MDEA; MDEC), dimethylone (bk-MDDMA; MDDMC))
Butyryl Fentanyl	9822	Y	N-(1-phenethylpiperidin-4-yl)-N-phenylbutyramide, N-(1-phenethylpiperidin-4-yl)-N-phenylbutanamide
Cathinone	1235	N	Constituent of "Khat" plant
Clonazolam (6-(2-chlorophenyl)-1-methyl-8-nitro-4H-benzo[f][1,2,4]triazolo[4,3-a][1,4] diazepine	2786	N	
Clonitazene	9612	Y	
Codeine methylbromide	9070	Y	
Codeine-N-oxide	9053	Y	
CP-47,497 (5-(1,1-Dimethylheptyl)-2-[(1R,3S)-3-hydroxycyclohexyl-phenol)	7297	N	CP-47,497
CP-47,497 C8 Homologue (5-(1,1-Dimethyloctyl)-2-[(1R,3S)3-hydroxycyclohexyl-phenol)	7298	N	CP-47,497 C8 Homologue
Cyclopentyl fentanyl	9847	Y	N-(1-phenethylpiperidin-4-yl)-N-phenylcyclopentanecarboxamide
Crotonyl fentanyl ((E)-N-(1-phenethylpiperidin-4-yl)-phenylbut-2-enamide)	9844	Y	CUMYL-PEGACLONE; SGT-151
CUMYL-PEGACLONE (5-pentyl-2-(2-phenylpropan-2-yl)pyrido[4,3-b]indol-1-one)	7093	N	

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SUBSTANCE	DEA NUMBER	NARCOTIC	OTHER NAMES
Cyclopropyl Fentanyl	9845	Y	N-(1-phenethylpiperidin-4-yl)-N-phenylcyclopropanecarboxamide
Cyprenophine	9054	Y	
Desomorphine	9055	Y	
Dextromoramide	9613	Y	Palfium, Jetrium, Narcolo
Diampromide	9615	Y	
Diethylthiambutene	9616	Y	
Diethyltryptamine	7434	N	DET, N,N-Diethyltryptamine (Positional Isomer: N-Methyl-N-isopropyltryptamine (MiPT))
Difenoxin	9168	Y	Lyspafen
Dihydromorphine	9145	Y	
Dimenoxadol	9617	Y	
Dimepheptanol	9618	Y	
Dimethylthiambutene	9619	Y	
Dimethyltryptamine	7435	N	DMT
Dioxaphetyl butyrate	9621	Y	
Dipipanone	9622	Y	Dipipan, phenylpiperone HCl, Diconal, Wellconal
Drotebanol	9335	Y	Metebanyl, oxymethebanol
Ethyl 2-(1-(5-fluoropentyl)-1H-indazole-3-carboxamido)-3,3-dimethylbutanoate	7036	N	5F-EDMB-PINACA
Ethylmethylthiambutene	9623	Y	
Ethylone	7547	N	1-(1,3-benzodioxol-5-yl)-2-(ethylamino)propan-1-one; 3,4methylenedioxy-N-ethylcathinone; bk-MDEA; MDEC
Etizolam (4-(2-chlorophenyl)-2-ethyl-9-methyl-6H-thieno[3,2-f][1,2,4]triazolo[4,3-a][1,4] diazepine	2780	N	
Etodesnitazene; etazene (2-(2-(4-ethoxybenzyl) 1Hbenzimidazol-1-yl)-N,N-diethylethan-1-amine)	9765	Y	
Etonitazene	9624	Y	
Etorphine (except HCl)	9056	Y	
Etoxeridine	9625	Y	
Fenethylline	1503	N	Captagon,amfetyline,ethyltheophylline amphetamine
Fentanyl carbamate (ethyl (1-phenethylpiperidin-4-yl)(phenyl)carbamate)	9851	Y	
Fentanyl related-substances as defined in 21 CFR 1308.11(h)	9850	Y	
Flunitazene (N,N-diethyl-2-(2-(4-fluorobenzyl)-5- nitro-1H-benzimidazol-1-yl)ethan-1-amine)	9756	Y	
Furanyl fentanyl (N-(1-phenethylpiperidin-4-yl)-N-phenylfuran-2-carboxamide)	9834	Y	
Furethidine	9626	Y	
Gamma Hydroxybutyric Acid	2010	N	GHB, gamma hydroxybutyrate, sodium oxybate

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SUBSTANCE	DEA NUMBER	NARCOTIC	OTHER NAMES
Heroin	9200	Y	Diacetylmorphine, diamorphine
Hydromorphinol	9301	Y	
Hydroxypethidine	9627	Y	
Ibogaine	7260	N	Constituent of “Tabernanthe iboga” plant
Isobutyryl fentanyl	9827	Y	N-(1-phenethylpiperidin-4-yl)-N-phenylisobutyramide
Isotonitazene (N,N-diethyl-2-(2-(4 isopropoxybenzyl)-5nitro-1H-benzimidazol-1-yl)ethan-1-amine)	9614	Y	N,N-diethyl-2-[[4-(1-methylethoxy)phenyl]methyl]-5-nitro1H-benzimidazole-1-ethanamine
JWH-018 (also known as AM678) (1-Pentyl-3-(1-naphthoyl)indole)	7118	N	JWH-018 and AM-678
JWH-019 (1-Hexyl-3-(1-naphthoyl)indole)	7019	N	JWH-019
JWH-073 (1-Butyl-3-(1-naphthoyl)indole)	7173	N	JWH-073
JWH-081 (1-Pentyl-3-(1-(4-methoxynaphthoyl) indole)	7081	N	JWH-081
JWH-122 (1-Pentyl-3-(4-methyl-1-naphthoyl) indole)	7122	N	JWH-122
JWH-200 (1-[2-(4-Morpholinyl)ethyl]-3-(1-naphthoyl)indole)	7200	N	JWH-200
JWH-203 (1-Pentyl-3-(2-chlorophenylacetyl) indole)	7203	N	JWH-203
JWH-250 (1-Pentyl-3-(2-methoxyphenylacetyl) indole)	6250	N	JWH-250
JWH-398 (1-Pentyl-3-(4-chloro-1-naphthoyl) indole)	7398	N	JWH-398
Ketobemidone	9628	Y	Cliradon
Levomoramide	9629	Y	
Levophenacylmorphan	9631	Y	
Lysergic acid diethylamide	7315	N	LSD, lysergide
MAB-CHMINACA (N-(1-amino-3,3dimethyl-1-oxobutan-2-yl)-1-(cyclohexylmethyl)-1H-indazole-3-carboxamide)	7032	N	MAB-CHMINACA and ADB-CHMINACA
Marihuana	7360	N	Cannabis, marijuana
Marihuana Extract	7350	N	
MDMB–CHMICA, MMB–CHMINACA (Methyl 2-(1-(cyclohexylmethyl)-1H-indole-3-carboxamido)-3,3-dimethylbutanoate)	7042	N	MDMB-CHMICA, MMB-CHMINACA
MDMB–FUBINACA (Methyl 2-(1-(4-fluorobenzyl)-1H-indazole-3-carboxamido)-3,3-dimethylbutanoate)	7020	N	MDMB-FUBINACA
MDPV (3,4-Methylenedioxypyrovalerone)	7535	N	MDPV
Mecloqualone	2572	N	Nubarene
Mephedrone (4-Methyl-N-methylcathinone)	1248	N	(Positional Isomers: 3-Methyl-methcathinone, Buphedrone, Ethcathinone, N,N-Dimethyl-cathinone)
Mescaline	7381	N	Constituent of “Peyote” cacti
Methaqualone	2565	N	Quaalude, Parest, Somnafac, Opitimil, Mandrax
Methcathinone	1237	N	N-Methylcathinone, “cat”

SCHEDULE I

SUBSTANCE	DEA NUMBER	NARCOTIC	OTHER NAMES
Methyl 2-(1-(4-fluorobenzyl)-1Hindazole-3-carboxamido)-3- methylbutanoate	7021	N	FUB–AMB, MMB– FUBINACA, AMB–FUBINACA
Methyl 2-(1-(5-fluoropentyl)-1H-indole-3-carboxamido)-3,3-dimethylbutanoate	7041	N	5F-MDMB-PICA
Methyldesorphine	9302	Y	
Methyldihydromorphine	9304	Y	
Methylone (3,4-Methylenedioxy-N-methylcathinone)	7540	N	(Positional Isomer: 2,3-methylenedioxymethcathinone (2,3-MDMC, 1-(benzo[d][1,3]dioxol-4-yl)-2-(methylamino)propan-1-one))
Metodesnitazene (N,N-diethyl-2-(2-(4-methoxybenzyl) 1H-benzimidazol-1- yl)ethan-1-amine)	9764	Y	
Metonitazene (N,N-diethyl-2-(2-(4- methoxybenzyl)-5- nitro-1Hbenzimidazol-1-yl)ethan-1-amine)	9757	Y	
MMB-CHMICA, AMB-CHMICA (methyl 2-(1-(cyclohexylmethyl)-1 H-indole-3-carboxamido)-3-methylbutanoate)	7044	N	
Morpheridine	9632	Y	
Morphine methylbromide	9305	Y	
Morphine methylsulfonate	9306	Y	
Morphine-N-oxide	9307	Y	
MT-45 (1-cyclohexyl-4-(1,2-diphenylethyl) piperazine))	9560	Y	MT-45
Myrophine	9308	Y	
N-(1-phenethylpiperidin-4-yl)-N-phenyltetrahydrofuran-2-carboxamide	9843	Y	Tetrahydrofuranyl fentanyl
N-(2-fluorophenyl)-N-(1-phenethylpiperidin-4-yl) propionamide	9816	Y	Ortho-fluorofentanyl or 2-fluorofentanyl
N-(Adamantan-1-yl)-1-(4-fluorobenzyl)-1H-indazole-3-carboxamide	7047	N	FUB-AKB48; FUB-APINACA; AKB48 N-(4-FLUOROBENZYL)
N,N-Dimethylamphetamine	1480	N	
Naphyrone	1258	N	naphthylpyrovalerone; 1-(naphthalen-2-yl)-2-(pyrrolidin-1-yl)pentan-1-one) (Positional Isomer: α-naphyrone)
N-Benzylpiperazine	7493	N	BZP, 1-benzylpiperazine
N-Ethyl-1-phenylcyclohexylamine	7455	N	PCE
N-Ethyl-3-piperidyl benzilate	7482	N	JB 323
N-Ethylamphetamine	1475	N	NEA
N-ethylhexedrone	7246	N	
N-Ethylpentylone (1-(1,3-benzodioxol-5-yl)-2-(ethylamino)-pentan-1-one)	7543	N	Ephylone
N-Hydroxy-3,4-methylenedioxyamphetamine	7402	N	N-hydroxy MDA
Nicocodeine	9309	Y	
Nicomorphine	9312	Y	Vilan
NM2201; CBL2201 (Naphthalen-1-yl 1-(5-fluoropentyl)-1 H-indole-3-carboxylate)	7221	N	
N-Methyl-3-piperidyl benzilate	7484	N	JB 336

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SUBSTANCE	DEA NUMBER	NARCOTIC	OTHER NAMES
Noracymethadol	9633	Y	
Norlevorphanol	9634	Y	
Normethadone	9635	Y	Phenyldimazone
Normorphine	9313	Y	
Norpipanone	9636	Y	
N-pyrrolidino etonitazene; etonitazepyne (2-(4-ethoxybenzyl	9758	Y	2-(4-ethoxybenzyl)-5-nitro-1-(2-(pyrrolidin-1-yl) ethyl)1Hbenzimidazole
Ocfentanil	9838	Y	N-(2-fluorophenyl)-2-methoxy-N-(1-pheneth-ylpiperidin-4-yl)acetamide
ortho-Fluoroacryl fentanyl (N-(2-fluoro-phenyl)-N-(1phenethylpiperidin-4-yl)acrylamide)	9852	Y	
ortho-Fluorobutyryl fentanyl (N-(2-fluoro-phenyl)-N-(1phenethylpiperidin-4-yl)butyramide; also known as 2fluorobutyryl fentanyl)	9846	Y	
ortho-Fluoroisobutyryl fentanyl (N-(2-fluoro-phenyl)-N-(1phenethylpiperidin-4-yl)isobutyra-mide)	9853	Y	
ortho-Methyl acetylfentanyl (N-(2-methyl-phenyl)-N-(1phenethylpiperidin-4-yl)acetamide; also known as 2methyl acetylfentanyl)	9848	Y	
ortho-Methyl methoxyacetyl fentanyl (2-methoxy-N-(2methylphenyl)-N-(1-phenethylpiperidin-4-yl) acetamide)	9820	Y	2-methyl methoxyacetyl fentanyl
Para-chloroisobutyryl fentanyl	9826	Y	N-(4-chlorophenyl)-N-(1-phenethylpiperidin-4-yl) isobutyramide
Para-fluorobutyryl fentanyl	9823	Y	N-(4-fluorophenyl)-N-(1-phenethylpiperidin-4-yl) butyramide
Para-Fluoro furanyl fentanyl (N-(4-fluoro-phenyl)-N-(1phenethylpiperidin-4-yl)furan-2-car-boxamide)	9854	Y	
Para-Fluorofentanyl	9812	Y	China White, fentanyl
Parahexyl	7374	N	Synhexyl,
Para-methoxybutyryl fentanyl	9837	Y	N-(4-methoxyphenyl)-N-(1-phenethylpiperidin-4-yl)butyramide
PB-22 (Quinolin-8-yl 1-pentyl-1H-indole-3-car-boxylate)	7222	N	QUPIC; PB-22
Para-Methoxymethamphetamine (PMMA), 1-(4methoxyphenyl)-N-methylpropan-2-amine	1245	N	
Para-Methylfentanyl (N-(4-methyl-phenyl)-N-(1phenethylpiperidin-4-yl)propio-namide; also known as 4methylfentanyl)	9917	Y	
Pentedrone (α-methylaminovalerophenone)	1246	N	2-(methylamino)-1-phenylpentan-1-one)(Posi-tional Isomers:3-methylethcathinone (3-MEC), 4-ethylmethcathinone (4-EMC), 4-methylbu-phedrone (4-MeMABP;4-MeBP), 3,4-dimethyl-methcathinone (3,4-DMMC),N-ethylbuphedrone (NEB),N-ethyl-N-methylcathinone(EMC))
Pentylone	7542	N	bk-MBDP; 1-(1,3-benzodioxol-5-yl)-2-(methyl-amino)pentan-1-one) (Positional Isomers: dibutylone (bk-DMBDB) and propylone (3',4'-methylenedioxy-N-propylaminocathinone, 1-(benzo[d][1,3]dioxol-5-yl)-2-(propylamino) propan-1-one))

SCHEDULE I

SUBSTANCE	DEA NUMBER	NARCOTIC	OTHER NAMES
Peyote	7415	N	Cactus which contains mescaline
Phenadoxone	9637	Y	
Phenampromide	9638	Y	
Phenomorphan	9647	Y	
Phenoperidine	9641	Y	Operidine, Lealgin
Phenyl fentanyl (N-(1-phenethylpiperidin-4-yl)-phenylbenzamide; also known as benzoyl fentanyl)	9841	Y	
Pholcodine	9314	Y	Copholco, Adaphol, Codisol, Lantuss, Pholcolin
Piritramide	9642	Y	Piridolan
Proheptazine	9643	Y	
Properidine	9644	Y	
Propiram	9649	Y	Algeril
Psilocybin	7437	N	Constituent of “Magic mushrooms”
Protonitazene (N,N-diethyl-2-(5-nitro-2-(4-propoxybenzyl)-1H-benzimidazol-1-yl)ethan-1-amine)	9759	Y	
Psilocyn	7438	N	Psilocin, constituent of “Magic mushrooms”
Racemoramide	9645	Y	
SR-18 (Also known as RCS-8) (1-Cyclohexylethyl-3-(2-methoxyphenylacetyl) indole)	7008	N	SR-18 and RCS-8
SR-19 (Also known as RCS-4) (1-Pentyl-3-[(4-methoxy)-benzoyl] indole	7104	N	SR-19 and RCS-4
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
Thiofuranyl fentanyl (N-(1-phenethylpiperidin-4-yl)-N-phenylthiophene-2-carboxamide; also known as 2thiofuranyl fentanyl; thiophene fentanyl)	9839	Y	
THJ-2201 [1-(5-fluoropentyl)-1H-indazol-3-yl](naphthalen-1-yl)methanone	7024	N	THJ-2201
Tilidine	9750	Y	Tilidate, Valoron, Kitadol, Lak, Tilsa
Trimeperidine	9646	Y	Promedolum
U-47700 (3,4-dichloro-N-[2-(dimethylamino) cyclohexyl]-N-methylbenzamide)	9547	Y	U-47700
UR-144 (1-Pentyl-1H-indol-3-yl)(2,2,3,3-tetramethylcyclopropyl)metanone	7144	N	UR-144
Valeryl fentanyl	9840	Y	N-(1-phenethylpiperidin-4-yl)-N-phenylpentanamide

SCHEDULE II

SUBSTANCE	DEA NUMBER	NARCOTIC	OTHER NAMES
1-Phenylcyclohexylamine	7460	N	PCP precursor
1-Piperidinocyclohexanecarbonitrile	8603	N	PCC, PCP precursor
4-Anilino-N-phenethyl-4-piperidine (ANPP)	8333	N	ANPP, Despropionyl fentanyl
Alfentanil	9737	Y	Alfenta
Alphaprodine	9010	Y	Nisentil
Amobarbital	2125	N	Amytal, Tuinal
Amphetamine	1100	N	Dexedrine, Adderall, Obetrol
Anileridine	9020	Y	Leritine
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	
Dronabinol in an oral solution in a drug product approved for marketing by the U.S. Food and Drug Administration	7365	N	Syndros
Ecgonine	9180	Y	Cocaine precursor, in Coca leaves
Ethylmorphine	9190	Y	Dionin
Etorphine HCl	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
Levomethorphan	9210	Y	
Levorphanol	9220	Y	Levo-Dromoran
Lisdexamfetamine	1205	N	Vyvanse
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

SCHEDULE II

SUBSTANCE	DEA NUMBER	NARCOTIC	OTHER NAMES
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
Norfentanyl (N-phenyl-N-(piperidin-4-yl)propio-namide)	8366	Y	
Noroxymorphone	9668	Y	
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
Thiafentanil	9729	Y	Thianil

SCHEDULE III

SUBSTANCE	DEA NUMBER	NARCOTIC	OTHER NAMES
[3,2-c]-furazan-5α-androstan-17β-ol	4000	N	
[3,2-c]pyrazole-androst-4-en-17β-ol	4000	N	
13Beta-ethyl-17beta-hydroxygon-4-en-3-one	4000	N	
17Alpha-methyl-3alpha,17beta-dihydroxy-5alpha-androstane	4000	N	
17Alpha-methyl-3beta,17beta-dihydroxy-5alpha-androstane	4000	N	
17Alpha-methyl-3beta,17beta-dihydroxyandrost-4-ene	4000	N	
17Alpha-methyl-4-hydroxynandrolone (17alpha-methyl-4-hydroxy-17beta-hydroxyestr-4-en-3-one)	4000	N	
17Alpha-methyl-delta1-dihydrotestosterone (17beta-hydroxy-17alpha-methyl-5alpha-androst-1-en-3-one)	4000	N	17-Alpha-methyl-1-testosterone
17α-Methyl-5α-androstan-17β-ol	4000	N	
17α-methyl-androst-2-ene-3,17β-diol	4000	N	
17α-methyl-androsta-1,4-diene-3,17β-diol	4000	N	
17α-Methyl-androstan-3-hydroxyimine-17β-ol	4000	N	
17β-Hydroxy-androstano[2,3-d]isoxazole	4000	N	
17β-Hydroxy-androstano[3,2-c]isoxazole	4000	N	
18a-Homo-3-hydroxy-estra-2,5(10)-dien-17-one	4000	N	
19-Nor-4,9(10)-androstadienedione	4000	N	
19-Nor-4-androstenediol (3beta,17beta-dihydroxyestr-4-ene; 3alpha,17beta-dihydroxyestr-4-ene)	4000	N	
19-Nor-4-androstenedione (estr-4-en-3,17-dione)	4000	N	
19-Nor-5-androstenediol (3beta,17beta-dihydroxyestr-5-ene; 3alpha,17beta-dihydroxyestr-5-ene)	4000	N	
19-Nor-5-androstenedione (estr-5-en-3,17-dione)	4000	N	
1-Androstenediol (3beta,17beta-dihydroxy-5alpha-androst-1-ene; 3alpha,17beta-dihydroxy-5alpha-androst-1-ene)	4000	N	
1-Androstenedione (5alpha-androst-1-en-3,17-dione)	4000	N	
2α,17α-dimethyl-17β-hydroxy-5β-androstan-3-one	4000	N	
2α,3α-epithio-17α-methyl-5α-androstan-17β-ol	4000	N	
3Alpha,17beta-dihydroxy-5alpha-androstane	4000	N	
3Beta,17beta-dihydroxy-5alpha-androstane	4000	N	
3β-hydroxy-estra-4,9,11-trien-17-one	4000	N	
4-Androstenediol (3beta,17beta-dihydroxy-androst-4-ene)	4000	N	4-AD
4-Androstenedione (androst-4-en-3,17-dione)	4000	N	

SCHEDULE III

SUBSTANCE	DEA NUMBER	NARCOTIC	OTHER NAMES
4-chloro-17α-methyl-17β-hydroxy-androst-4-en-3-one	4000	N	
4-chloro-17α-methyl-17β-hydroxy-androst-4-ene-3,11-dione	4000	N	
4-chloro-17α-methyl-androst-4-ene-3β,17β-diol	4000	N	
4-chloro-17α-methyl-androsta-1,4-diene-3,17β-diol	4000	N	
4-Dihydrotestosterone (17beta-hydroxyandrostan-3-one)	4000	N	Anabolex, Andractim, Pesomax, Stanolone
4-Hydroxy-19-nortestosterone (4,17beta-dihydroxyestr-4-en-3-one)	4000	N	
4-Hydroxy-androst-4-ene-3,17-dione	4000	N	Listed as 4-Hydroxy-androst-4-ene-3,17-dione[3,2-c]pyrazole-5α-androstan-17β-ol
4-Hydroxytestosterone (4,17beta-dihydroxyandrost-4-en-3-one)	4000	N	
5-Androstenediol (3beta,17beta-dihydroxy-androst-5-ene)	4000	N	
5-Androstenedione (androst-5-en-3,17-dione)	4000	N	
5α-Androstan-3,6,17-trione	4000	N	
6-bromo-androsta-1,4-diene-3,17-dione	4000	N	
6-bromo-androstan-3,17-dione	4000	N	
6α-Methyl-androst-4-ene-3,17-dione	4000	N	
Amobarbital & noncontrolled active ingred.	2126	N	
Amobarbital suppository dosage form	2126	N	
Anabolic steroids	4000	N	“Body Building” drugs
Androstanedione (5alpha-androstan-3,17-dione)	4000	N	
Aprobarbital	2100	N	Alurate
Barbituric acid derivative	2100	N	Barbiturates not specifically listed
Benzphetamine	1228	N	Didrex, Inapetyl
Bolasterone (7alpha,17alpha-dimethyl-17beta-hydroxyandrost-4-en-3-one)	4000	N	
Boldenone (17beta-hydroxyandrost-1,4-diene-3-one)	4000	N	Equipoise, Parenabol, Vebonol, dehydrotestosterone
Boldione	4000	N	
Buprenorphine	9064	Y	Buprenex, Temgesic, Subutex, Suboxone
Butabarbital (secbutabarbital)	2100	N	Butisol, Butibel
Butalbital	2100	N	Fiorinal, Butalbital with aspirin
Butobarbital (butethal)	2100	N	Soneryl (UK)
Calusterone (7beta,17alpha-dimethyl-17beta-hydroxyandrost-4-en-3-one)	4000	N	Methosarb
Chlorhexadol	2510	N	Mechloral, Mecoral, Medodorm, Chloralodol
Chlorphentermine	1645	N	Pre-Sate, Lucofen, Apsedon, Desopimon
Clortermine	1647	N	Voranil

SCHEDULE III

SUBSTANCE	DEA NUMBER	NARCOTIC	OTHER NAMES
Clostebol (4-chloro-17beta-hydroxyandrost-4-en-3-one)	4000	N	Alfa-Trofodermin, Clostene, 4-chlorotestosterone
Codeine & isoquinoline alkaloid 90 mg/du	9803	Y	Codeine with papaverine or noscapine
Codeine combination product 90 mg/du	9804	Y	Empirin,Fiorinal,Tylenol,ASA or APAP w/codeine
Dehydrochloromethyltestosterone (4-chloro-17beta-hydroxy-17alpha-methylandrost-1,4-di-en-3-one)	4000	N	Oral-Turinabol
Delta1-dihydrotestosterone (17beta-hydroxy-5alpha-androst-1-en-3-one)	4000	N	1-Testosterone
Desoxymethyltestosterone	4000	N	
Dihydrocodeine combination product 90 mg/du	9807	Y	Synalgos-DC, Compal
Dronabinol (synthetic) in sesame oil in soft gelatin capsule as approved by FDA	7369	N	Marinol, synthetic THC in sesame oil/soft gelatin as approved by FDA
Drostanolone (17beta-hydroxy-2alpha-methyl-5alpha-androstan-3-one)	4000	N	Drolban, Masterid, Permastril
Embutramide	2020	N	Tributane
Estra-4,9,11-triene-3,17-dione	4000	N	
Ethylestrenol (17alpha-ethyl-17beta-hydroxyestr-4-ene)	4000	N	Maxibolin, Orabolin, Durabolin-O, Duraboral
Ethylmorphine combination product 15 mg/du	9808	Y	
Fluoxymesterone (9-fluoro-17alpha-methyl-11beta,17beta-dihydroxyandrost-4-en-3-one)	4000	N	Anadroid-F, Halotestin, Ora-Testryl
Formebolone (2-formyl-17alpha-methyl-11alpha,17beta-dihydroxyandrost-1,4-dien-3-one)	4000	N	Esiclene, Hubernol
Furazabol (17alpha-methyl-17beta-hydroxyandrostano[2,3-c]-furazan)	4000	N	Frazalon, Miotolon, Qu Zhi Shu
Gamma Hydroxybutyric Acid preparations	2012	N	Xyrem
Ketamine	7285	N	Ketaset, Ketalar, Special K, K
Lysergic acid	7300	N	LSD precursor
Lysergic acid amide	7310	N	LSD precursor
Mestanolone (17alpha-methyl-17beta-hydroxy-5alpha-androstan-3-one)	4000	N	Assimil, Ermalone, Methybol, Tantarone
Mesterolone (1alpha-methyl-17beta-hydroxy-5alpha-androstan-3-one)	4000	N	Androviron, Proviron, Testiwop
Methandienone (17alpha-methyl-17beta-hydroxyandrost-1,4-dien-3-one)	4000	N	Dianabol, Metabolina, Nerobol, Perbolin
Methandriol (17alpha-methyl-3beta,17beta-dihydroxyandrost-5-ene)	4000	N	Sinesex, Stenediol, Troformone
Methasterone (2alpha,17alpha-dimethyl-5alpha-androstan-17beta-ol-3-one)	4000	N	Methasterone; 2α,17α-dimethyl-17β-hydroxy-5α-androstan-3-one
Methenolone (1-methyl-17beta-hydroxy-5alpha-androst-1-en-3-one)	4000	N	Primobolan, Primobolan Depot, Primobolan S
Methyldienolone (17alpha-methyl-17beta-hydroxyestra-4,9(10)-dien-3-one)	4000	N	
Methyltestosterone (17alpha-methyl-17beta-hydroxyandrost-4-en-3-one)	4000	N	Android, Oreton, Testred, Virilon
Methyltrienolone (17alpha-methyl-17beta-hydroxyestra-4,9,11-trien-3-one)	4000	N	Metribolone

SCHEDULE III

SUBSTANCE	DEA NUMBER	NARCOTIC	OTHER NAMES
Methyprylon	2575	N	Noludar
Mibolerone (7alpha,17alpha-dimethyl-17beta-hydroxyestr-4-en-3-one)	4000	N	Cheque, Matenon
Morphine combination product/50 mg/(100 ml or 100 gm)	9810	Y	
Nalorphine	9400	Y	Nalline
Nandrolone (17beta-hydroxyestr-4-en-3-one)	4000	N	Deca-Durabolin, Durabolin, Durabolin-50
Norbolethone (13beta,17alpha-diethyl-17beta-hydroxygon-4-en-3-one)	4000	N	Genabol
Norclostebol (4-chloro-17beta-hydroxyestr-4-en-3-one	4000	N	Anabol-4-19, Lentabol
Norethandrolone (17alpha-ethyl-17beta-hydroxyestr-4-en-3-one)	4000	N	Nilevar, Pronabol, Solevar
Normethandrolone (17alpha-methyl-17beta-hydroxyestr-4-en-3-one)	4000	N	Lutenin, Matronal, Orgasteron
Opium combination product 25 mg/du	9809	Y	Paregoric, other combination products
Oxandrolone (17alpha-methyl-17beta-hydroxy-2-oxa-5alpha-androstan-3-one)	4000	N	Anavar, Lonavar, Oxandrin, Provitar, Vasorome
Oxymesterone (17alpha-methyl-4,17beta-dihydroxyandrost-4-en-3-one)	4000	N	Anamidol, Balnimax, Oranabol, Oranabol 10
Oxymetholone (17alpha-methyl-2-hydroxymethylene-17beta-hydroxy-5alpha-androstan-3-one)	4000	N	Anadrol-50, Adroyd, Anapolon, Anasteron, Pardroyd
Pentobarbital & noncontrolled active ingred.	2271	N	FP-3
Pentobarbital suppository dosage form	2271	N	WANS
Perampanel	2261	N	Fycompa, [2-(2-oxo-l-phenyl-5-pyridin-2-yl-l ,2-dihydropyridin-3-yl) benzonitrile]
Phendimetrazine	1615	N	Plegine, Prelu-2, Bontril, Melfiat, Statobex
Prostanozol (17beta-hydroxy-5alpha-androstano[3,2-c]pyrazole)	4000	N	Prostanozol; [3,2-c]pyrazole-5α-androstan-17β-ol
Secobarbital & noncontrolled active ingred	2316	N	
Secobarbital suppository dosage form	2316	N	
Stanozolol (17alpha-methyl-17beta-hydroxy-5alpha-androst-2-eno[3,2-c]-pyrazole)	4000	N	Winstrol, Winstrol-V
Stenbolone (17beta-hydroxy-2-methyl--5alpha-androst-1-en-3-one)	4000	N	
Stimulant compounds previously excepted	1405	N	Mediatric
Sulfondiethylmethane	2600	N	
Sulfonethylmethane	2605	N	
Sulfonmethane	2610	N	
Talbutal	2100	N	Lotusate
Testolactone (13-hydroxy-3-oxo-13,17-secoandrosta-1,4-dien-17-oic acid lactone)	4000	N	Teolit, Teslac
Testosterone (17beta-hydroxyandrost-4-en-3-one)	4000	N	Android-T, Androlan, Depotest, Delatestryl
Tetrahydrogestrinone (13beta,17alpha-diethyl-17beta-hydroxygon-4,9,11-trien-3-one)	4000	N	THG

SCHEDULE III

SUBSTANCE	DEA NUMBER	NARCOTIC	OTHER NAMES
Thiamylal	2100	N	Surital
Thiopental	2100	N	Pentothal
Tiletamine & Zolazepam Combination Product	7295	N	Telazol
Trenbolone (17beta-hydroxyestr-4,9,11-trien-3-one)	4000	N	Finaplix-S, Finajet, Parabolan
Vinbarbital	2100	N	Delvinal, vinbarbitone

SCHEDULE IV

SUBSTANCE	DEA NUMBER	NARCOTIC	OTHER NAMES
Alfaxalone	2731	N	Alfaxan, 5α-pregnan-3α-ol-11,20-dione
Alprazolam	2882	N	Xanax
Barbital	2145	N	Veronal, Plexonal, barbitone
Bromazepam	2748	N	Lexotan, Lexatin, Lexotanil
Brexanolone (3α-hydroxy-5α-pregnan-20-one)	2400	N	Allopregnanolone
Butorphanol	9720	N	Stadol, Stadol NS, Torbugesic, Torbutrol
Camazepam	2749	N	Albego, Limpidon, Paxor
Carisoprodol	8192	N	Soma
Cathine	1230	N	Constituent of “Khat” plant, (+)-norpseudoephedrine
Chloral betaine	2460	N	Beta Chlor
Chloral hydrate	2465	N	Noctec
Chlordiazepoxide	2744	N	Librium, Libritabs, Limbitrol, SK-Lygen
Clobazam	2751	N	Urbadan, Urbanyl
Clonazepam	2737	N	Klonopin, Clonopin
Clorazepate	2768	N	Tranxene
Clotiazepam	2752	N	Trecalmo, Rize, Clozan, Veratran
Cloxazolam	2753	N	Akton, Lubalix, Olcadil, Sepazon
Delorazepam	2754	N	
Daridorexant [(S)-2-(5-chloro-4-methyl-1H˜benzo[d]imidazol-2-yl)-2methylpyrrolidin-1-yl](5-methoxy-2-(2H-1,2,3-triazol-2yl) phenyl)methanone	2410	N	QUVIVIQ
Dextropropoxyphene dosage forms	9278	Y	Darvon, propoxyphene, Darvocet, Propacet
Diazepam	2765	N	Valium, Diastat
Dichloralphenazone	2467	N	Midrin, dichloralantipyrine
Diethylpropion	1610	N	Tenuate, Tepanil
Difenoxin 1 mg/25 ug AtSO4/du	9167	Y	Motofen
Eluxadoline	9725	N	VIBERZI
Estazolam	2756	N	ProSom, Domnamid, Eurodin, Nuctalon

SCHEDULE IV

SUBSTANCE	DEA NUMBER	NARCOTIC	OTHER NAMES
Ethchlorvynol	2540	N	Placidyl
Ethinamate	2545	N	Valmid, Valamin
Ethyl loflazepate	2758	N	
Fencamfamin	1760	N	Reactivan
Fenproporex	1575	N	Gacilin, Solvolip
Fludiazepam	2759	N	
Flunitrazepam	2763	N	Rohypnol, Narcozep, Darkene, Roipnol
Flurazepam	2767	N	Dalmane
Fospropofol	2138	N	Lusedra
Halazepam	2762	N	Paxipam
Haloxazolam	2771	N	
Ketazolam	2772	N	Anxon, Loftran, Solatran, Contamex
Lemborexant	2245	N	(1R,2S)-2-[(2,4-dimethylpyrimidin-5-yl)oxymethyl]-2-(3fluorophenyl)-N-(5-fluoropyridin-2-yl)cyclopropane-1carboxamide
Loprazolam	2773	N	
Lorazepam	2885	N	Ativan
Lorcaserin	1625	N	Belviq
Lormetazepam	2774	N	Noctamid
Mazindol	1605	N	Sanorex, Mazanor
Mebutamate	2800	N	Capla
Medazepam	2836	N	Nobrium
Mefenorex	1580	N	Anorexic, Amexate, Doracil, Pondinil
Meprobamate	2820	N	Miltown, Equanil, Micrainin, Equagesic, Meprospan
Methohexital	2264	N	Brevital
Methylphenobarbital (mephobarbital)	2250	N	Mebaral, mephobarbital
Midazolam	2884	N	Versed
Modafinil	1680	N	Provigil
Nimetazepam	2837	N	Erimin
Nitrazepam	2834	N	Mogadon
Nordiazepam	2838	N	Nordazepam, Demadar, Madar
Oxazepam	2835	N	Serax, Serenid-D
Oxazolam	2839	N	Serenal, Convertal
Paraldehyde	2585	N	Paral
Pemoline	1530	N	Cylert
Pentazocine	9709	N	Talwin, Talwin NX, Talacen, Talwin Compound
Petrichloral	2591	N	Pentaerythritol chloral, Periclor
Phenobarbital	2285	N	Luminal, Bellergal-S
Phentermine	1640	N	Ionamin, Fastin, Adipex-P, Obe-Nix, Zantryl

SCHEDULE IV

SUBSTANCE	DEA NUMBER	NARCOTIC	OTHER NAMES
Pinazepam	2883	N	Domar
Pipradrol	1750	N	Detaril, Stimolag Fortis
Prazepam	2764	N	Centrax
Quazepam	2881	N	Doral
Remimazolam (4H-imidazol[1,2-a][1,4]benzodiazepine 4-propionic acid)4H-imidazol[1,2-a][1,4]benzodiazepine-4-propionic acid	2846	N	8-bromo-1-methyl-6-(2-pyridinyl)-(4S)-methyl ester, benzenesulfonate (1:1) and also, methyl 3-[(4S)-8-bromo4H-1-methyl-6-pyridin-2-yl-4H-imidazo[1,2a][1,4]benzodiazepin4yl] propanoate benzenesulfonic acid
Serdexmethylphenidate	1729	N	
Sibutramine	1675	N	Meridia
Solriamfetol (2-amino-3-phenylpropyl carbamate; benzenepropanol, beta-amino-, carbamate (ester))	1650	N	
SPA	1635	N	1-dimethylamino-1,2-diphenylethane, Lefetamine
Suvorexant	2223	N	MK-4305, [(7R)-4-(5-chloro-1,3-benzoxazol-2-yl)-7-methyl-1,4-diazepan-1-yl][5-methyl-2-(2H-1,2,3-triazol-2-yl)phenyl]methanone
Temazepam	2925	N	Restoril
Tetrazepam	2886	N	Myolastan, Musaril
Tramadol (2-[(dimethylamino)methyl]-1-(3-methoxyphenyl)cyclohexanol)	9752	Y	Tramadol
Triazolam	2887	N	Halcion
Zaleplon	2781	N	Sonata
Zolpidem	2783	N	Ambien, Ivadal, Stilnoct, Stilnox
Zopiclone	2784	N	Lunesta

SCHEDULE V

SUBSTANCE	DEA NUMBER	NARCOTIC	OTHER NAMES
Brivaracetam	2710	N	BRV, UCB-34714, Briviact, ((2S)-2-[(4R)-2-oxo-4-propylpyrrolidin-1-yl] butanamide)
Cenobamate [(1R)-1-(2-chlorophenyl)-2-(tetrazol-2-yl)ethyl]carbamate	2720	N	2H-tetrazole-2-ethanol, alpha-(2-chlorophenyl)-, carbamate (ester), (alphaR)-; carbamic acid (R)-(+)-1-(2chlorophenyl)-2-(2H-tetrazol-2-yl)ethyl ester)
Codeine preparations - 200 mg/(100 ml or 100 gm)		Y	Cosanyl,Robitussin A-C,Cheracol,Cerose,Pediacof
Difenoxin preparations - 0.5 mg/25 ug AtSO4/du		Y	Motofen
Dihydrocodeine preparations 100mg/(100 ml or 100 gm)		Y	Cophene-S, various others
Diphenoxylate preparations 2.5 mg/25 ug AtSO4		Y	Lomotil, Logen

SCHEDULE V

SUBSTANCE	DEA NUMBER	NARCOTIC	OTHER NAMES
Ethylmorphine preparations 100 mg/(100 ml or 100 gm)		Y	
Ezogabine	2779	N	Potiga
Ganaxolone (3α-hydroxy-3β-methyl-5α-pregnan-20-one)	2401	N	
Lacosamide	2746	N	Vimpat
Lasmiditan [2,4,6-trifluoro-N-(6-(1-methylpiperidine-4-carbonyl)pyridine-2-yl-benzamide]	2790	N	Reyvow
Opium preparations - 100 mg/(100 ml or 100 gm)		Y	Parepectolin, Kapectolin PG, Kaolin Pectin P.G.
Pregabalin	2782	N	Lyrica
Pyrovalerone	1485	N	Centroton, Thymergix

FEDERAL TRAFFICKING PENALTIES

DRUG/SCHEDULE	QUANTITY	PENALTIES	QUANTITY	PENALTIES
Cocaine (Schedule II)	500–4999 grams mixture	**First Offense:** Not less than 5 yrs, and not more than 40 yrs. If death or serious injury, not less than 20 or more than life. Fine of not more than $5 million if an individual, $25 million if not an individual. **Second Offense:** Not less than 10 yrs, and not more than life. If death or serious injury, life imprisonment. Fine of not more than $8 million if an individual, $50 million if not an individual.	5 kgs or more mixture	**First Offense:** Not less than 10 yrs, and not more than life. If death or serious injury, not less than 20 or more than life. Fine of not more than $10 million if an individual, $50 million if not an individual. **Second Offense:** Not less than 15 yrs, and not more than life. If death or serious injury, life imprisonment. Fine of not more than $20 million if an individual, $75 million if not an individual. **2 or More Prior Offenses:** Not less than 25 years. Fine of not more than $20 million if an individual, $75 million if not an individual.
Cocaine Base (Schedule II)	28–279 grams mixture		280 grams or more mixture	
Fentanyl (Schedule II)	40–399 grams mixture		400 grams or more mixture	
Fentanyl Analogue (Schedule I)	10–99 grams mixture		100 grams or more mixture	
Heroin (Schedule I)	100–999 grams mixture		1 kg or more mixture	
LSD (Schedule I)	1–9 grams mixture		10 grams or more mixture	
Methamphetamine (Schedule II)	5–49 grams pure or 50–499 grams mixture		50 grams or more pure or 500 grams or more mixture	
PCP (Schedule II)	10–99 grams pure or 100–999 grams mixture		100 gm or more pure or 1 kg or more mixture	

		PENALTIES
Other Schedule I & II drugs (and any drug product containing Gamma Hydroxybutyric Acid)	Any amount	**First Offense:** Not more than 20 yrs. If death or serious injury, not less than 20 yrs, or more than life. Fine $1 million if an individual, $5 million if not an individual. **Second Offense:** Not more than 30 yrs. If death or serious bodily injury, life imprisonment. Fine $2 million if an individual, $10 million if not an individual.
Flunitrazepam (Schedule IV)	1 gram	
Other Schedule III drugs	Any amount	**First Offense:** Not more than 10 years. If death or serious injury, not more than 15 yrs. Fine not more than $500,000 if an individual, $2.5 million if not an individual. **Second Offense:** Not more than 20 yrs. If death or serious injury, not more than 30 yrs. Fine not more than $1 million if an individual, $5 million if not an individual.
All other Schedule IV drugs	Any amount	**First Offense:** Not more than 5 yrs. Fine not more than $250,000 if an individual, $1 million if not an individual. **Second Offense:** Not more than 10 yrs. Fine not more than $500,000 if an individual, $2 million if other than an individual.
Flunitrazepam (Schedule IV)	Other than 1 gram or more	
All Schedule V drugs	Any amount	**First Offense:** Not more than 1 yr. Fine not more than $100,000 if an individual, $250,000 if not an individual. **Second Offense:** Not more than 4 yrs. Fine not more than $200,000 if an individual, $500,000 if not an individual.

FEDERAL TRAFFICKING PENALTIES—MARIJUANA

DRUG	QUANTITY	1st OFFENSE	2nd OFFENSE *
Marijuana (Schedule I)	1,000 kg or more marijuana mixture; or 1,000 or more marijuana plants	Not less than 10 yrs. or more than life. If death or serious bodily injury, not less than 20 yrs., or more than life. Fine not more than life. Fine not more than $10 million if an individual, $50 million if other than an individual.	Not less than 15 yrs. or more than life. If death or serious bodily injury, life imprisonment. Fine not more than $20 million if an individual, $75 million if other than an individual.
Marijuana (Schedule I)	100 kg to 999 kg marijuana mixture; or 100 to 999 marijuana plants	Not less than 5 yrs. or more than 40 yrs. If death or serious bodily injury, not less than 20 yrs., or more than life. Fine not more than life. Fine not more than $5 million if an individual, $25 million if other than an individual.	Not less than 10 yrs. or more than life. If death or serious bodily injury, life imprisonment. Fine not more than $8 million if an individual, $50 million if other than an individual.
Marijuana (Schedule I)	More than 10 kgs hashish; 50 to 99 kg marijuana mixture More than 1 kg of hashish oil; 50 to 99 marijuana plants	Not less than 20 yrs. If death or serious bodily injury, not less than 20 yrs., or more than life. Fine $1 million if an individual, $5 million if other than an individual.	Not less than 30 yrs. If death or serious bodily injury, life imprisonment. Fine $2 million if an individual, $10 million if other than an individual.
Marijuana (Schedule I)	Less than 50 kg marijuana (except 50 or more marijuana plants regardless of weight); 1 to 49 marijuana plants;	Not more than 5 yrs. Fine not more than $250,000, $1 million if other than an individual	Not more than 10 yrs. Fine $500,000 if an individual, $2 million if other than individual
Hashish (Schedule I)	10 kg or less	Not more than 5 yrs. Fine not more than $250,000, $1 million if other than an individual.	Not more than 10 yrs. Fine $500,000 if an individual, $2 million if other than individual
Hashish Oil (Schedule I)	1 kg or less	Not more than 5 yrs. Fine not more than $250,000, $1 million if other than an individual.	Not more than 10 yrs. Fine $500,000 if an individual, $2 million if other than individual

*The minimum sentence for a violation after two or more prior convictions for a felony drug offense have become final is not less than 25 years imprisonment and a fine up to $20 million if an individual and $75 million if other than an individual.

II. U.S. Chemical Control

The Drug Enforcement Administration employs a multifaceted approach to combat drug trafficking which includes enforcement, interdiction, and education. A lesser known approach which combines elements from all three of these facets is chemical control. Large quantities of chemicals are required to synthesize, extract, and purify most illicit drugs. DEA has long recognized the need to monitor these chemicals as part of its overall drug control strategy.

During the 1980s there was a tremendous increase in the clandestine production of controlled substances, particularly methamphetamine in the United States. There was also a proliferation of clandestine laboratories producing controlled substance analogs, very potent and dangerous variations of controlled narcotics, stimulants, and hallucinogens. Furthermore, DEA learned that U.S. firms were exporting large quantities of chemicals, such as acetone, methylethylketone, and potassium permanganate to cocaine-producing countries. Significant amounts of these chemicals ultimately were diverted to clandestine cocaine laboratories. It became clear that mandatory controls were needed to control the distribution of these chemicals in order to have an impact on the clandestine laboratory problem.

DEA embarked upon a broad chemical control program in 1989 that began with the Chemical Diversion and Trafficking Act of 1988. The CDTA regulated 12 precursor chemicals, eight essential chemicals, tableting machines, and encapsulating machines by imposing recordkeeping and import/export reporting requirements on transactions involving these products. It resulted in effectively reducing the supply of illicit methamphetamine. The number of clandestine laboratories seized in the first three years following the law's implementation

reversed the trend of the previous three decades and resulted in a decline. Currently, DEA regulates 42 chemicals which are commonly used in illicit drug production.

Maintaining this success requires continuous effort to thwart traffickers' never-ending search for new methods of diversion and new precursor materials.

The foundation of the government's program to prevent chemical diversion is based on additional laws such as the Domestic Chemical Diversion Control Act of 1993, the Comprehensive Methamphetamine Control Act of 1996, the Methamphetamine Anti-Proliferation Act of 2000, and the Combat Methamphetamine Epidemic Act of 2005. This is illustrated by changes in the patterns of diversion:

- When the quantity of U.S. chemicals shipped to cocaine-manufacturing areas declined, chemical suppliers from other parts of the world emerged as new sources of supply. The U.S. government then undertook an aggressive international campaign to educate and elicit the support of other nations in establishing chemical controls. Today, there is a broad level of international agreement regarding the actions that must be taken to achieve chemical control. Many nations have passed laws to prevent the diversion of chemicals.

- As a result of government controls, ephedrine and other chemicals used to manufacture methamphetamine became more difficult to divert. Traffickers then began using over-the-counter capsules and tablets that contained these ingredients. As chemicals rendered into legitimate medicines purportedly for the commercial market, these products were exempted from the CDTA requirements. The DCDCA closed this loophole and required DEA registration for all manufacturers, distributors, importers, and exporters of List I chemicals. It also established recordkeeping and reporting requirements for transactions in single-entity ephedrine products.

- When single-entity ephedrine products became regulated, drug traffickers turned to pseudoephedrine. This was addressed by the MCA which expanded regulatory control of lawfully marketed drug products containing ephedrine, pseudoephedrine, and phenylpropanolamine[1].

- MAPA focused on the continuing retail level diversion by constricting retail transactions of pseudoephedrine and PPA drug products. It reduced the threshold for such transactions from 24 grams to nine grams of pseudoephedrine or PPA base in a single transaction and limited package sizes to contain no more than three grams of pseudoephedrine or PPA base. The Act also increased penalties for chemical diversion and provided for restitution to the government for cleanup costs.

- The CMEA further restricted retail level transactions by redefining nonprescription products that contain ephedrine, pseudoephedrine, and PPA as "scheduled listed chemical products." The Act requires

(1)Due to concerns regarding harmful side effects that PPA can have, on November 6, 2000, FDA invoked a voluntary withdrawal of over-the-counter PPA products intended for human consumption.

all regulated sellers of SLCPs to complete a required training and self-certification process effective September 30, 2006. On this date, stores were required to keep all SLCPs behind the counter or in a locked cabinet. Consumers wishing to purchase SLCPs are required to show identification and sign a logbook for each purchase. The Act also implements daily sales limits of 3.6 grams per purchaser and purchase limits of nine grams of these products in a 30-day period to any person.

- All of these federal laws (CDTA, DCDCA, MCA, MAPA, and CMEA) imposed varying degrees of reporting requirements on the chemical and pharmaceutical industries. Yet the involvement of private industry and the public should not be limited to the laws passed by Congress. The voluntary support by industry constitutes a powerful resource for protecting the health and safety of the nation. DEA encourages each firm to be vigilant and to become a partner in combating the diversion of chemicals used in illegal drug production.

- It is DEA's goal to effectively regulate while maintaining a positive working relationship with the regulated community and to educate the regulated community on the various laws regarding precursor chemicals and their implementing regulations. DEA understands that it can best serve the public interest by working in voluntary cooperation with the chemical industry in developing programs designed to prevent the diversion of regulated chemicals into the illicit market.

Listed Chemicals regulated under the Controlled Substances Act

See 21, C.F.R. §§ 1309, 1310, and 1314 for details

JULY 2024

LIST I

	CONTROLLED SUBSTANCE PRODUCED																	
	Amphetamine	Cocaine	N, N-Dimethylamphetamine	Ethylamphetamine	Fentanyl & Analogs	GHB	Heroin	LSD	MDA	MDE	MDMA	Methamphetamine	Methaqualone	Methcathinone	4-Methylaminorex	Phencyclidine (PCP)	Phenyl-2-Propanone	THRESHOLDS
1. 1-Boc-4-AP [1]				▲													0	0
2. 4-Anilinopiperidine [8]				▲													0	0
3. 4-Piperidone [12]				▲													40	40
4. N-Acetylanthranilic Acid 2												▲					40	40
5. Alpha-Phenylacetoacetamide [9] (APAA)	▲															▲	0	0
6. Alpha-Phenylacetoacetonitrile [3] (APAAN)	▲											▲					30	30
7. Anthranilic acid [2]				▲												▲	0	0
8. Benzaldehyde	▲															▲	4	4
9. Benzyl Cyanide																▲	1	1
10. Benzylfentanyl [1]				▲													0	0
11. Ephedrine [3 & 7]											▲		▲				0	0
12. Ergocristine [1]							▲										0	0
13. Ergonovine [1]							▲										0.010	0.010
14. Ergotamine [1]							▲										0.020	0.020
15. Ethylamine [1]				▲					▲								1	1
16. Gamma-Butyrolactone (GBL)						▲											0	0
17. Hydriodic Acid											■						1.7	1.7
18. Hypophosphorous Acid [1]	■										■						0	0
19. Iodine	■										■						0	0
20. Isosafrole								▲	▲	▲							4	4
21. Methyl Alpha-phenylacetoacetate (MAPA) [9]	▲										▲					▲	0	0
22. Methylamine [1]										▲	▲						1	1
23. 3, 4-Methylenedioxyphenyl-2-Propanone								▲	▲	▲							4	4
24. N-Methylephedrine [3]			▲														1	1
25. N-Methylpseudoephedrine [3]			▲														1	1
26. N-phenethyl-4-Piperidone (NPP)				▲													0	0
27. Nitroethane	▲							▲								▲	2.5	2.5
28. Norpseudoephedrine [3]	▲													▲			2.5	2.5
29. Phenylacetic Acid [2]																▲	1	1
30. Phenylpropanolamine [3 & 7]	▲													▲			2.5	2.5
31. Phosphorus (red)	■										■						0	0
32. Phosphorus (white or yellow)	■										■						0	0.500
33. Piperidine [1]															▲		0.500	0.500

■ Reagent ▲ Precursor

Listed Chemicals regulated under the Controlled Substances Act

See 21, C.F.R. §§ 1309, 1310, 1313, and 1314 for details

JULY 2024

LIST II

	CONTROLLED SUBSTANCE PRODUCED																	
	Amphetamine	Cocaine	N, N-Dimethylamphetamine	Ethylamphetamine	Fentanyl & Analogs	GHB	Heroin	LSD	MDA	MDE	MDMA	Methamphetamine	Methaqualone	Methcathinone	4-Methylaminorex	Phencyclidine (PCP)	Phenyl-2-Propanone	THRESHOLDS
33. Piperidine [1]															▲		0.500	0.500
34. Piperonal (heliotropin)								▲	▲	▲							4	4
35. PMK Glycidic [10]							▲	▲	▲								0	0
36. PMK Glycidic acid [11]							▲	▲	▲								0	0
37. Propionic Anhydride					▲												0.001	0.001
38. Pseudoephedrine [3 & 7]											▲		▲				1	1
39. Safrole								▲	▲	▲							4	4
40. Acetic Anhydride						▲						▲				▲	1,023	1,023
41. Acetone		●				●	●	●	●	●	●						150	1,500
42. Benzyl Chloride											▲						1	4
43. Ethyl Ether	●	●			●		●	●	●	●	●	●	●	●		●	●	135.8	1,364
44. Hydrochloric Acid [5 & 6]	■	■	■	■	■		■	■	■	■	■	■	■	■		■		N/C	222.3
45a. Hydrogen Chloride Gas [5 & 6]	■	■	■	■	■		■	■	■	■	■	■	■	■		■		0	27
45b. Methyl Ethyl Ketone (2-Butanone)		●					●		●	●		●						145	1.455
46. Methyl Isobutyl Ketone [4]		●					●		●	●		●						N/C	1.523
47. Potassium Permanganate		■																55	500
48. Sodium Permanganate		■																55	500
49. Sulfuric Acid [5 & 6]	■	■						■	■	■	■						■	N/C	347
50. Toluene		●			●							●			●	●		159	1,591
																		DOMESTIC	IMPORTS & EXPORTS
																		KILOGRAMS	

KEY

● = Solvent ■ = Reagent ▲ = Precursor

[1] and its salts
[2] and its salts and esters
[3] and its salts, optical isomers, and salts of optical isomers
[4] Exports only, to all Western Hemisphere except Canada
[5] Exports to all South American countries & Panama — Domestic for HCl gas
[6] Threshold for HCl acid and sulfuric acid is 50 gallons, the equivalent weight in kilograms is shown
[7] For pseudoephedrine, phenylpropanolamine, and ephedrine drug products, see 21 USC § 802 (45)(A) and 21 C.F.R. Part 1314
N/C = Not Controlled
[8] Including its amides, its carbamates, and its salts
[9] and its optical isomers
[10] and its optical and geometric isomers
[11] and its salts, optical and geometric isomers, and salts of optical and geometric isomers
[12] and its acetals, amides, carbamates, salts, and salts of acetals, amides, carbamates, and any combinaton thereof, whenever that existence of such is possible N/C = Not Controlled

III. Introduction to Drug Classes

The Controlled Substances Act 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 used 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 misuse. The extent to which a substance is reliably capable of producing intensely pleasurable feelings (euphoria) increases the likelihood of that substance being misused.

DRUG MISUSE

When controlled substances are used in a manner or amount inconsistent with the legitimate medical use, it is called drug misuse. The non-sanctioned use of substances controlled in Schedules I through V of the CSA is considered drug misuse. 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 misuse.

DEPENDENCE

In addition to having misuse 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 individuals with a substance use disorder are usually physically dependent on the drug they are misusing, 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 person's life. This definition implies a loss of control regarding drug use, and the person with a substance use disorder will continue to use a drug despite serious medical and/or social consequences. In 2022, an estimated 46.6 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 nearly 14% of the U.S. population aged 12 or older. Illicit drugs include marijuana, cocaine (including crack), heroin, hallucinogens, inhalants, methamphetamine, opioids, or prescription psychotherapeutics (including pain relievers, tranquilizers, stimulants, and sedatives) that were misused.[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

[1] *Results from the 2022 National Survey on Drug Use and Health: Detailed Tables; U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration*

drug is selected by the drug user.

It is important to keep in mind that the effects produced by any drug can vary significantly and are largely dependent on the dose and route of administration. Concurrent use of other drugs can enhance or block an effect, and substance users often take more than one drug to boost the desired effects or counter unwanted side effects. The risks associated with drug misuse 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 use. According to the National Institute on Drug Abuse, young Americans engaged in unprecedented levels of illicit drug use in the last third of the twentieth century. Today, about 41% of young people have used an illicit drug by the time they leave high school and about 6% of eighth graders, 11% of tenth graders, and 21% of twelfth graders are current (within the past month) users.[2]

Substance use in youth can result in tragic consequences with untold harm to themselves, their families, and others. The 2016 Surgeon General's Report on Alcohol, Drugs, and Health identified risk factors for youth which might lead them into substance use. These include being raised in a home where the parents or other relatives use drugs, living in neighborhoods and going to schools where drug use is common, and associating with peers who use substances. Nearly 70% of those who try an illicit drug before the age of 13 develop a substance use disorder in the next 7 years, compared with 27% of those who first try an illicit drug after the age of 17.[3]

In the sections that follow, each of the 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. And while cocaine is not pharmacologically a narcotic, it is defined as such under the CSA in 21 USC 802 (17)(D), but is listed in this guide under stimulants. There are also a number of substances that are used 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 misused by children. Control of these substances under the CSA would not only impede legitimate commerce, but also would likely have little effect on the misuse of these substances by youngsters. An energetic campaign aimed at educating both adults and youth about inhalants is more likely to prevent their misuse. To that end, a section is dedicated to providing information on inhalants.

[2] *Monitoring the Future Survey, 2021; National Institute on Drug Abuse, National Institutes of Health, U.S. Department of Health and Human Services*

[3] *Facing Addiction in America. The Surgeon General's Report on Alcohol, Drugs, and Health, October 2016. U.S. Department of Health and Human Services.*

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.

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), Hillbilly Heroin, Lean or Purple Drank, OC, Ox, Oxy, Oxycotton, Sippin Syrup

OxyContin® 160 mg tablet

Heroin

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 used?

- 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' misuse. 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 person may continue to think and talk about using drugs and feel overwhelmed coping with daily activities. Relapse is common if there are no changes to the physical environment or the behavioral motivators that prompted the misuse in the first place.

What is their effect on the body?

Narcotics/opioids are prescribed by doctors to treat pain and diarrhea, suppress cough, and help people sleep. Effects depend heavily on the dose, how it is 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.

Fentanyl

WHAT IS FENTANYL?

Fentanyl is a potent synthetic opioid drug approved by the FDA for use as an analgesic (pain relief) and anesthetic. It is approximately 100 times more potent than morphine and 50 times more potent than heroin as an analgesic.

WHAT IS ITS ORIGIN?

Fentanyl was first developed in 1959 and introduced in the 1960s as an intravenous anesthetic. It is legally manufactured and distributed in the United States. Licit fentanyl pharmaceutical products are diverted via theft, fraudulent prescriptions, and illicit distribution by patients, physicians, nurses, physician assistants, nurse practitioners, and pharmacists.

From 2011 through 2021, both fatal overdoses associated with use of clandestinely produced fentanyl and fentanyl analogs, and law enforcement encounters increased markedly.

According to CDC, overdose deaths involving synthetic opioids, excluding methadone were involved in roughly 2,600 drug overdose deaths each year in 2011 and 2012, but from 2013 through 2021, the number of drug overdose deaths involving synthetic opioids, excluding methadone increased dramatically each year, to more than 71,000 in 2021. The total number of overdose deaths for this category was greater than 260,000 for 2013 through 2021. These overdose deaths involving synthetic opioids is primarily driven by illicitly manufactured fentanyl, including fentanyl analogs. Consistent with overdose death data, the trafficking, distribution, and use of illicitly produced fentanyl and fentanyl analogs positively correlates with the associated dramatic increase in overdose fatalities.

A lethal dose of fentanyl

What are common street names?

Common street names include:

- Apache, China Girl, China Town, Dance Fever, Friend, Goodfellas, Great Bear, He-Man, Jackpot, King Ivory, Murder 8, and Tango & Cash.

What does it look like?

Clandestinely produced fentanyl is encountered either as a powder or in fake tablets and is sold alone or in combination with other drugs such as heroin or cocaine.

Fentanyl pharmaceutical products are currently available in the following dosage forms: oral transmucosal lozenges commonly referred to as fentanyl “lollipops” (Actiq®), effervescent buccal tablets (Fentora®), sublingual tablets (Abstral®), sublingual sprays (Subsys®), nasal sprays (Lazanda®), transdermal patches (Duragesic®), and injectable formulations.

How is it used?

Fentanyl can be injected, snorted/sniffed, smoked, taken orally by pill or tablet, and spiked onto blotter paper. Illicitly produced fentanyl is sold alone or in combination with heroin and other substances and has been identified in fake pills, mimicking

pharmaceutical drugs such as oxycodone. Fentanyl patches are misused by removing its gel contents and then injecting or ingesting these contents. Patches have also been frozen, cut into pieces, and placed under the tongue or in the cheek cavity. According to the National Forensic Laboratory Information System - National Estimates Based on All Reports estimates, reports on fentanyl (both pharmaceutical and clandestinely produced) increased from 4,697 in 2014 to over 163,201 in 2022, as reported by federal, state, and local forensic laboratories in the United States.

What is the effect on the body?

Fentanyl, similar to other commonly used opioid analgesics (e.g., morphine), produces effects such as relaxation, euphoria, pain relief, sedation, confusion, drowsiness, dizziness, nausea, vomiting, urinary retention, pupillary constriction, and respiratory depression.

What are the overdose effects?

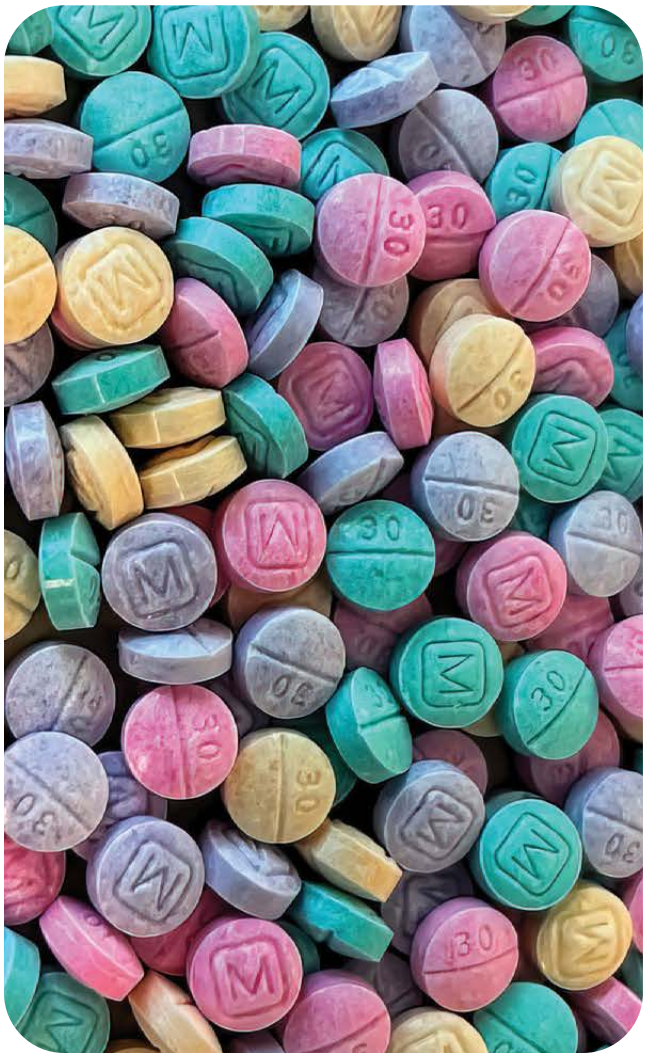
Overdose may result in stupor, changes in pupillary size, cold and clammy skin, cyanosis, coma, and respiratory failure leading to death. The presence of triad of symptoms such as coma, pinpoint pupils, and respiratory depression are strongly suggestive of opioid poisoning.

Which drugs cause similar effects?

Drugs that cause similar effects include other opioids such as morphine, hydrocodone, oxycodone, hydromorphone, methadone, and heroin.

What is the legal status in the Federal Control Substances Act?

Fentanyl is a Schedule II narcotic under the United States Controlled Substances Act of 1970.



Fake rainbow oxycodone M30 tablets containing fentanyl

Heroin

WHAT IS HEROIN?

Heroin is a highly addictive drug and it is a rapidly acting opioid.

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:

- Mexico, South America, Southeast Asia, and Southwest Asia

Heroin is available in the United States in several forms, primarily white powder from Mexico, and to a lesser extent, South America and Southwest Asia; and "black tar" and brown powder from Mexico.

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, especially fentanyl, or with substances such as sugar, starch, powdered milk, or quinine.

How is it used?

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 users report feeling a surge of euphoria or "rush" followed by a twilight state of sleep and wakefulness.

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 person 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.

Effects 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 users 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 narcotic 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.

Heroin liquid packets

Brown powder heroin

White powder heroin

Hydromorphone

WHAT IS HYDROMORPHONE?

Hydromorphone belongs to a class of drugs called "opioids," which includes morphine. It has an analgesic potency approximately two to eight times greater than that of morphine and has a rapid onset of action.

WHAT IS ITS ORIGIN?

Hydromorphone is legally manufactured and distributed in the United States. However, people 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, capsules, oral solutions, and injectable formulations

How is it used?

People may use 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 not used 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?

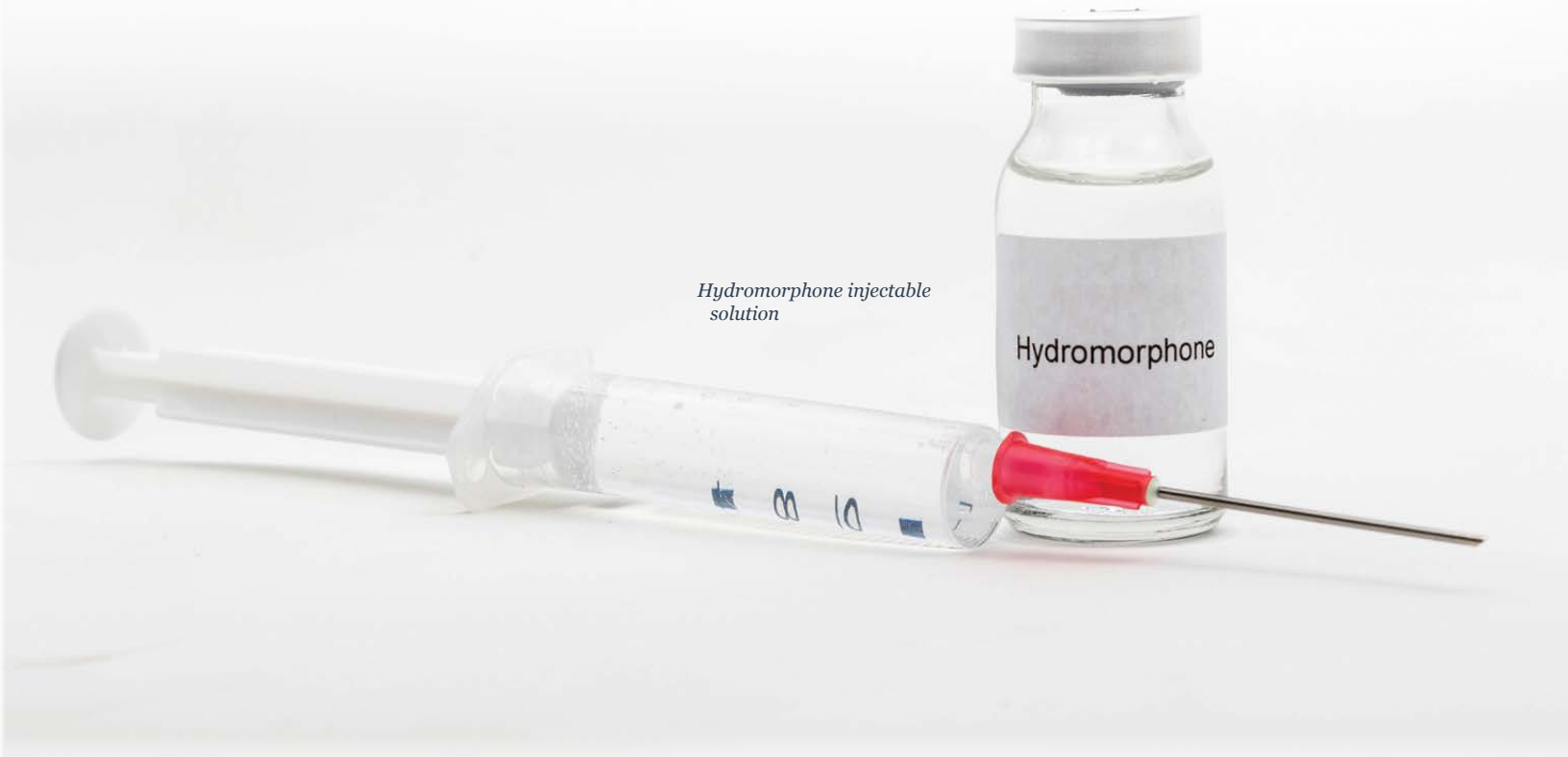
Drugs that have similar effects include:

- Heroin, morphine, hydrocodone, fentanyl, and oxycodone

What is its legal status in the United States?

Hydromorphone is a Schedule II narcotic 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.

Hydromorphone pills



Hydromorphone injectable solution

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 (Dolophine®).

What are common street names?

Common street names include:

- Amidone, Chocolate Chip Cookies, Fizzies with MDMA, and Wafer

Methadone

What does it look like?

Methadone is available as a tablet, 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 used?

Methadone can be swallowed or injected.

What is its effect on the mind?

Misuse 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 misuse 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 narcotic under the Controlled Substances Act. While it may legally be used under a doctor's supervision, its nonmedical use is illegal.

WHAT IS MORPHINE?

Morphine is a non-synthetic narcotic with a high potential for misuse and is derived from opium. It is used for the treatment of 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 used?

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 extended-release tablets and capsules, and injectable preparations

Those dependent on morphine prefer injection because the drug enters the bloodstream 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 and 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.

Morphine

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 5000 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 seedpod 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 used?

Opium can be smoked, intravenously injected, or taken in pill form. Opium is also misused 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 narcotic 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.

WHAT IS OXYCODONE?

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

WHAT IS ITS ORIGIN?

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

What are common street names?

Common street names 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 extended-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 used?

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 and 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 misuse.

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 Schedule II narcotics under the Controlled Substances Act.

Oxycodone pills

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 Adipex P®, Benzphetamine, Bontril®, Fastin®, Ionomin®, Meridia®, Preludin®], and other illicitly used drugs such as methamphetamine, cocaine, methcathinone, and other synthetic cathinones that are commonly sold under the guise of "bath salts."

WHAT IS THEIR ORIGIN?

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

Ritalin SR 20 mg tablet

Crack Cocaine

What are common street names?

Common street names for stimulants 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 used?

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."

Misuse 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 not used 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?

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. Some are legally prescribed and used to treat attention-deficit hyperactivity disorder.

WHAT IS THEIR ORIGIN?

Amphetamines were first marketed in the 1930s as Benzedrine in an over-the-counter inhaler to treat nasal congestion.

By 1937 amphetamines were available by prescription in tablet form and were used in the treatment of the sleeping disorder narcolepsy and ADHD.

Over the years, the use and misuse of clandestinely produced amphetamines have spread. Today, clandestine laboratory production of amphetamines has mushroomed, and misuse 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 amphetamine and dextroamphetamine (Adderall®), dextroamphetamine (Dexedrine®), lisdexamphetamine (Vyvanse™) and methamphetamine (Desoxyn®).

How are they used?

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 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 misuse 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 users of amphetamines.

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, phendimetrazine, cocaine, crack, and khat

What is their legal status in the United States?

Many amphetamines are Schedule II stimulants, which means that they have a high potential for abuse and a currently acceptable medical use (in FDA-approved products). Pharmaceutical products are available only through a prescription that cannot be refilled.

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 Colombia, Peru, and Bolivia. The cocaine manufacturing process takes place in remote jungle labs where the raw product undergoes a series of chemical transformations. Colombia produces about 90 percent of the cocaine powder reaching the United States. Most of the cocaine entering the United States comes through Mexico.

What are common street names?

Common street names include:

- Blow, Coca, Coke, Crack, Flake, Snow, and Soda Cot

What does it look like?

Cocaine hydrochloride is usually distributed as a white, crystalline powder.

Cocaine powder

Cocaine HCl is often diluted ("cut") with a variety of substances, the most prominent cutting agent is phenyltetrahydroimidazothiazole (levamisole, dexamisole, etc.) which was previously used as an antiworm medication but is no longer approved for use in the United Sates.

It is believed to be "cut" to stretch the amount of the product and increase profits for dealers or prolong the drug's effect. In contrast, cocaine base (crack) looks like small, irregularly shaped chunks (or "rocks") of a whitish solid.

How is it used?

Powdered cocaine (i.e., cocaine hydrochloride) 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 used 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 often binge on the drug until they are exhausted or run out of cocaine.

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 use. 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 use of highly pure street cocaine has led to many severe adverse health consequences such as:

- Irregular heartbeat, 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 amphetamine and 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 has an accepted medical use for treatment in the United States. Cocaine hydrochloride solution (4 percent and 10 percent) 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, more effective products have been developed for these purposes, and cocaine is now rarely used medically in the United States.

Cocaine bricks, seized by DEA

WHAT IS KHAT?

Khat is a flowering evergreen shrub that is used 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.

What are common street names?

Common street names for khat include:

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

What are its overdose effects?

The dose needed to constitute an overdose is not known, however it has been historically associated with those who are 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.

What does it look like?

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

How is it used?

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.

Khat plant

What is its effect on the mind?

Khat can induce manic behavior with:

- Grandiose delusions, paranoia, nightmares, hallucinations, and hyperactivity
- Chronic khat use 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 use of khat can cause physical exhaustion.

Which drugs cause similar effects?

Khat's effects are similar to other stimulants, such as cocaine, amphetamine, 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 throughout the United States, including in Hawaii. Domestic clandestine laboratory operators also produce and distribute meth but on an exponentially smaller scale. The methods used depend on the availability of precursor chemicals.

Currently, this domestic clandestinely produced meth is mainly made with diverted products that contain pseudoephedrine. Mexican methamphetamine is made with different precursor chemicals. The Combat Methamphetamine Epidemic Act of 2005 requires retailers of nonprescription 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.

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.

Methamphetamine in finished form

How is it used?

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

What is its effect on the mind?

Meth is a highly addictive drug with potent central nervous system 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.

Chronic meth users can 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 percent of the dopamine-producing cells in the brain can be damaged after prolonged exposure to relatively low levels of meth. Some studies suggested that the use of methamphetamine may also result in serotonergic neurotoxicity.

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 use 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 a currently acceptable medical use (in FDA-approved products). 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 ADHD.

Methamphetamine in finished form

Depressants

WHAT ARE DEPRESSANTS?

Depressants will induce sleep, relieve anxiety and muscle spasms, and prevent seizures.

Barbiturates are older drugs and include butalbital (Fiorina®), phenobarbital, Pentothal®, Seconal®, and Nembutal®. A person can rapidly develop dependence on and tolerance to barbiturates, meaning a person needs more and more of them to feel and function normally. This makes them unsafe, increasing the likelihood of drug overdose.

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

Lunesta®, 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 and others can obtain depressants from the family medicine cabinet, friends, family members, the internet, doctors, and hospitals.

Xanax 0.25,0.5 and 1 mg scored 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 used?

Individuals misuse 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. Users 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 induce 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 reaction time, impair mental functioning and judgment, and cause confusion

Long-term use of depressants produces physical and 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 misused drugs, withdrawal from depressants can be life threatening.

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. In the United States, Rohypnol® and Quaaludes® are not manufactured or legally marketed, and have no accepted medical use.

Klonopin 5 mg tablet

Barbiturates

WHAT ARE BARBITURATES?

Barbiturates are depressants that produce a wide spectrum of central nervous system depression from mild sedation to coma. They also have 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, few 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. People prefer the short-acting and intermediate barbiturates such as Amytal® and Seconal®.

How are they used?

Barbiturates are used by swallowing a pill or injecting a liquid form. Barbiturates are generally misused 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 restraint, 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:

- Central nervous system depression, decreased respiration, increased heart rate, decreased blood pressure, decreased urine production, decreased body temperature, 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.

WHAT ARE BENZODIAZEPINES?

Benzodiazepines are depressants that produce sedation and hypnosis, relieve anxiety and muscle spasms, and reduce seizures.

WHAT IS THEIR ORIGIN?

Benzodiazepines are only legally available through prescription. Many users maintain their drug supply by getting prescriptions from several doctors, forging prescriptions, or buying them illicitly. Alprazolam and clonazepam are the two most frequently encountered benzodiazepines on the illicit market.

What are common street names?

Common street names include Benzos and Downers.

What do they look like?

The most common benzodiazepines are the prescription drugs Valium®, Xanax®, Halcion®, Ativan®, and Klonopin®. Tolerance can develop, although at variable rates and to different degrees.

Shorter-acting benzodiazepines used to manage insomnia include estazolam (ProSom®), flurazepam (Dalmane®), temazepam (Restoril®), and triazolam (Halcion®). Midazolam (Versed®), a short-acting benzodiazepine, is used for sedation, anxiety, and amnesia in critical care settings and prior to anesthesia. It is available in the United States as an injectable preparation and as a syrup (primarily for pediatric patients).

Benzodiazepines with a longer duration of action are used to treat insomnia in patients with daytime anxiety. These benzodiazepines include alprazolam (Xanax®), chlordiazepoxide (Librium®), clorazepate (Tranxene®), diazepam (Valium®), halazepam (Paxipam®), lorzepam (Ativan®), oxazepam (Serax®), prazepam (Centrax®), and quazepam (Doral®). Clonazepam (Klonopin®), diazepam, and clorazepate are also used as anticonvulsants.

How are they used?

Misuse is frequently associated with adolescents and young adults who take the drug orally or crush it up and snort it to get high.

Misuse is particularly high among heroin and cocaine users. Additionally, opioid users often co-use benzodiazepines to enhance euphoria.

What is their effect on the mind?

Benzodiazepines are associated with amnesia, hostility, irritability, and vivid or disturbing dreams.

What is their effect on the body?

Benzodiazepines slow down the central nervous system and may cause sleepiness and relaxed mood.

What are their overdose effects?

Effects of overdose include:

- Extreme drowsiness, confusion, impaired coordination, decreased reflexes, respiratory depression, coma, and possible death. Overdose effects of concomitant use of benzodiazepines and opioids include: profound sedation, respiratory depression, coma, and death.

Which drugs cause similar effects?

Drugs that cause similar effects include:

- Alcohol, barbiturates, sleeping pills, and GHB

What is their legal status in the United States?

Benzodiazepines are Schedule IV depressants under the Controlled Substances Act.

GHB

WHAT IS GHB?

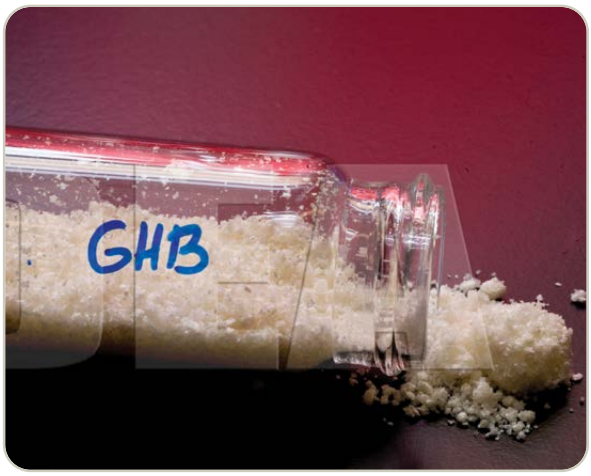
Gamma-Hydroxybutyric acid (GHB) is another name for the generic drug sodium oxybate. Xyrem® (which is sodium oxybate) is the trade name of the FDA-approved prescription medication. Xyrem® is approved as a treatment to improve daytime sleepiness and muscle weakness with narcolepsy (a disorder marked by sudden, unexplained, spontaneous fatigue, napping, or falling asleep throughout the day).

Analogs that are often substituted for GHB include GBL (gamma butyrolactone) and 1,4 BD (also called just "BD"), which is 1,4-butanediol. These analogs are available legally as industrial solvents used to produce polyurethane, pesticides, elastic fibers, pharmaceuticals, coatings on metal or plastic, and other products. They are also sold illicitly as supplements for bodybuilding, fat loss, reversal of baldness, improved eyesight, and to combat aging, depression, drug addiction, and insomnia.

GBL and BD are sold as "fish tank cleaner," "ink stain remover," "ink cartridge cleaner," and "nail enamel remover" for approximately $100 per bottle — much more expensive than comparable products. Attempts to identify the use of GHB analogs are hampered by the fact that routine toxicological screens do not detect the presence of these analogs.

WHAT IS ITS ORIGIN?

GHB is produced illegally in both domestic and foreign clandestine laboratories. The major source of GHB on the street is through clandestine synthesis by local operators. At bars or "rave" parties, GHB is typically sold in liquid form by the capful or "swig" for $5 to $25 per cap. Xyrem® has the potential for diversion and misuse like any other pharmaceutical containing a controlled substance.



GHB

GHB has been encountered in nearly every region of the country.

What are common street names?

Common street names include:

- Easy Lay, G, Georgia Home Boy, GHB, Goop, Grievous Bodily Harm, Liquid Ecstasy, Liquid X, and Scoop

What does it look like?

GHB is usually sold as a liquid or as a white powder that is dissolved in a liquid, such as water, juice, or alcohol. GHB dissolved in liquid has been packaged in small vials or small water bottles. In liquid form, GHB is clear and colorless and slightly salty in taste.

How is it used?

GHB and its analogs are misused for their euphoric and calming effects and because some people believe they build muscles and cause weight loss.

GHB and its analogs are also misused for their ability to increase libido, suggestibility, passivity, and to cause amnesia (no memory of events while under the influence of the substance) — traits that make victims who unknowingly consume GHB vulnerable to sexual

assault and other criminal acts.

GHB misuse became popular among teens and young adults at dance clubs and "raves" in the 1990s and gained notoriety as a date rape drug. GHB is taken alone or in combination with other drugs, such as alcohol (primarily), other depressants, stimulants, hallucinogens, and marijuana.

The average dose ranges from 1 to 5 grams (depending on the purity of the compound, this can be 1-2 teaspoons mixed in a beverage). However, the concentrations of these "home-brews" have varied so much that people are usually unaware of the actual dose they are drinking.

What is its effect on the mind?

GHB occurs naturally in the central nervous system in very small amounts. Use of GHB produces CNS depressant effects including:

- Euphoria, drowsiness, decreased anxiety, confusion, and memory impairment

GHB can also produce both visual hallucinations and — paradoxically — excited and aggressive behavior. GHB greatly increases the CNS depressant effects of alcohol and other depressants.

What is its effect on the body?

GHB takes effect in 15 to 30 minutes, and the effects last 3 to 6 hours. Low doses of GHB produce nausea. At high doses, GHB overdose can result in:

- Unconsciousness, seizures, slowed heart rate, greatly slowed breathing, lower body temperature, vomiting, nausea, coma, and death.

Regular use of GHB can lead to addiction and withdrawal that includes:

- Insomnia, anxiety, tremors, increased heart rate and blood pressure, and occasional psychotic thoughts.

Currently, there is no antidote available for GHB intoxication. GHB analogs are known to produce side effects such as:

- Topical irritation to the skin and eyes, nausea, vomiting, incontinence, loss of consciousness, seizures, liver damage, kidney failure, respiratory depression, and death

What are its overdose effects?

GHB overdose can cause coma and death.

Which drugs cause similar effects?

- GHB analogs are often used in place of GHB. Both GBL and BD metabolize to GHB when taken and produce effects similar to GHB.
- CNS depressants such as barbiturates and methaqualone also produce effects similar to GHB.

What is its legal status in the United States?

GHB is a Schedule I controlled substance, 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. FDA-approved GHB products are Schedule III substances under the Controlled Substances Act. In addition, GBL is a List I chemical.

GHB was placed on Schedule I of the Controlled Substances Act in March 2000. However, when sold as FDA-approved GHB products (such as Xyrem®), it is considered Schedule III, one of several drugs that are listed in multiple schedules.

Rohypnol®

WHAT IS ROHYPNOL?

Rohypnol® is a trade name for flunitrazepam, a CNS depressant that belongs to a class of drugs known as benzodiazepines. Flunitrazepam is also marketed as generic preparations and other trade name products outside of the United States.

Like other benzodiazepines, Rohypnol® produces sedative-hypnotic, anti-anxiety, and muscle relaxant effects. This drug has never been approved for medical use in the United States by the Food and Drug Administration. Outside the United States, Rohypnol® is commonly prescribed to treat insomnia. Rohypnol® is also referred to as a "date rape" drug.

WHAT IS ITS ORIGIN?

Rohypnol® is smuggled into the United States from other countries, such as Mexico.

What are common street names?

Common street names include:

- Circles, Forget Pill, Forget-Me-Pill, La Rocha, Lunch Money Drug, Mexican Valium, Pingus, R2, Reynolds, Roach, Roach 2, Roaches, Roachies, Roapies, Robutal, Rochas Dos, Rohypnol, Roofies, Rophies, Ropies, Roples, Row-Shay, Ruffies, and Wolfies

What does it look like?

Prior to 1997, Rohypnol® was manufactured as a white tablet (0.5-2 milligrams per tablet), and when mixed in drinks, was colorless, tasteless, and odorless. In 1997, the manufacturer responded to concerns about the drug's role in sexual assaults by reformulating the drug.

Rohypnol® is now manufactured as an oblong olive green tablet with a speckled blue core that when dissolved in light-colored drinks will dye the liquid blue. However, generic versions of the drug may not contain the blue dye.

How is it used?

The tablet can be swallowed whole, crushed and snorted, or dissolved in liquid. Adolescents may use Rohypnol® to produce a euphoric effect often described as a "high." While high, they experience reduced inhibitions and impaired judgment.

Rohypnol is also used in combination with alcohol to produce an exaggerated intoxication.

In addition, use of Rohypnol® may be associated with multiple-substance misuse. For example, cocaine users may use benzodiazepines such as Rohypnol® to relieve the side effects (e.g., irritability and agitation) associated with cocaine binges.

Rohypnol is also used to physically and psychologically incapacitate victims targeted for sexual assault. The drug is usually placed in the alcoholic drink of an unsuspecting victim to incapacitate them and prevent resistance to sexual

Rohypnol® tablets

assault. The drug leaves the victim unaware of what has happened to them.

What is its effect on the mind?

Like other benzodiazepines, Rohypnol® slows down the functioning of the CNS producing:

- Drowsiness (sedation), sleep (pharmacological hypnosis), decreased anxiety, and amnesia (no memory of events while under the influence of the substance)

Rohypnol® can also cause:

- Increased or decreased reaction time, impaired mental functioning and judgment, confusion, aggression, and excitability

What is its effect on the body?

Rohypnol® causes muscle relaxation. Adverse physical effects include:

- Slurred speech, loss of motor coordination, weakness, headache, and respiratory depression

Rohypnol® also can produce physical dependence when taken regularly over a period of time.

What are its overdose effects?

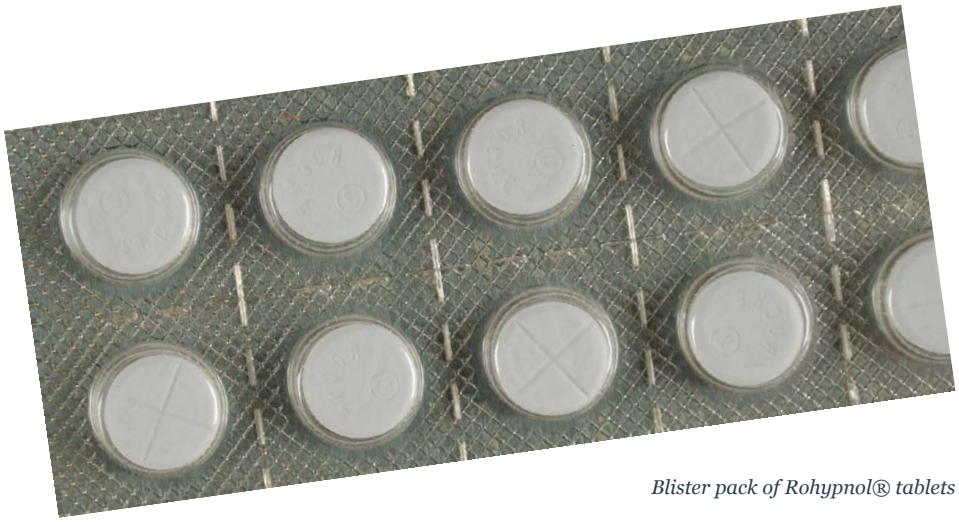
High doses of Rohypnol®, particularly when combined with CNS depressant drugs such as alcohol and heroin, can cause severe sedation, unconsciousness, slow heart rate, and suppression of respiration that may be sufficient to result in death.

Which drugs cause similar effects?

Drugs that cause similar effects include GHB (gamma hydroxybutyrate) and other benzodiazepines such as alprazolam (e.g., Xanax®), clonazepam (e.g., Klonopin®), and diazepam (e.g., Valium®).

What is its legal status in the United States?

Rohypnol® is a Schedule IV substance under the Controlled Substances Act. Rohypnol® is not approved for manufacture, sale, use, or importation to the United States. However, it is legally manufactured and marketed in other countries. Penalties for possession, trafficking, and distribution involving one gram or more are the same as those of a Schedule I drug.



Blister pack of Rohypnol® tablets

WHAT ARE HALLUCINOGENS?

Hallucinogens are among the oldest known group of drugs used for their ability to alter human perception and mood.

WHAT IS THEIR ORIGIN?

Hallucinogens can be synthetically produced in illicit laboratories or found in plants or fungi.

MDMA/Ecstasy

LSD Blotter Sheet

What are common street names?

Common street names include:

- Acid, Fry, Mind Candy, Mushrooms, Shrooms, Special K, STP, X, and ecstasy (or XTC)

What do they look like?

Hallucinogens come in a variety of forms. MDMA or ecstasy tablets are sold in many colors with a variety of logos to attract youth. LSD is sold in the form of saturated paper (blotter paper), typically imprinted with colorful graphic designs. Other hallucinogens are sold as powders.

How are they used?

The most commonly used hallucinogens such as psilocybin-containing mushrooms, LSD, and MDMA (ecstasy) are typically taken orally or smoked.

What is their effect on the mind?

Sensory effects include perceptual distortions that vary with dose, setting, and mood. Psychological effects include distortions of thought associated with time and space. Time may appear to stand still. Forms and colors may change, and may take on new significance. Weeks or even months after some hallucinogens have been taken, the user may develop an uncommon disorder called Hallucinogen Persisting Perception Disorder or experience "flashbacks." HPPD can include fragmentary recurrences of certain aspects of the drug experience in the absence of actually taking the drug. The occurrence of HPPD is unpredictable, but may be more likely to occur during times of stress and seems to occur more frequently in younger individuals.

What is their effect on the body?

Physiological effects include elevated heart rate, increased blood pressure, dilated pupils, and often can induce nausea and vomiting.

What are their overdose effects?

Serious psychological harm can occur after administration. Effects such as fear, depression, anxiety, and paranoia can occur and be long-lasting. Deaths exclusively from acute overdose of LSD, psilocybin-containing mushrooms, mescaline, and other hallucinogens are less common. Deaths generally occur due to suicide, accidents, dangerous behavior, inadvertently eating poisonous plant material, or poly-substance use.

MDMA/Ecstasy tablets

Some hallucinogens, including phencyclidine (PCP) and some synthetic hallucinogens such as those in the NBOMe-drug class can cause acute overdose that may lead to death.

A severe overdose of PCP or ketamine can result in:

- Respiratory depression, coma, convulsions, seizures, and death due to respiratory arrest

What is their legal status in the United States?

Many hallucinogens are under Schedule I of the Controlled Substances Act, meaning that they have 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.

Ecstasy/MDMA

WHAT IS ECSTASY/MDMA?

3,4-methylenedioxymethamphetamine (MDMA) acts as both a stimulant and hallucinogen, producing an energizing effect, distortions in time and perception, and enhanced enjoyment of tactile experiences.

Adolescents and young adults use it to reduce inhibitions and to promote:

- Euphoria, feelings of closeness, empathy, and sexuality

Although MDMA is known among users as ecstasy, researchers have determined that many tablets sold as ecstasy may not contain any MDMA, or may contain MDMA in combination to other harmful drugs, such as:

- Methamphetamine, ketamine, cocaine, cathinones, and caffeine

In addition, other drugs similar to MDMA, such as 3,4-methylenedioxyamphetamine (MDA) or para-methoxyamphetamine (PMA), are often sold as ecstasy, which can lead to overdose and death when the user takes additional doses to obtain the desired effect.

WHAT IS ITS ORIGIN?

MDMA is a synthetically produced drug. Western Europe is the primary source for MDMA seized in the United States. Some MDMA coming in from Canada is also seized, but with significantly fewer incidents than from Europe.

What are common street names?

Common street names include:

- Adam, Beans, Clarity, Disco Biscuit, E, Ecstasy, Eve, Go, Hug Drug, Lover's Speed, MDMA, Peace, STP, X, and XTC

What does it look like?

MDMA is mainly distributed and sold in tablet form often with logos, creating brand names for users to seek out. The colorful pills are often hidden among colorful candies. MDMA is also distributed in capsules, powder, and liquid forms.

How is it used?

MDMA use mainly involves swallowing tablets (50-150 mg), which are sometimes crushed and snorted, occasionally smoked, but rarely injected. MDMA is also available as a powder.

Users may take MDMA by "stacking" (taking three or more tablets at once) or by "piggy-backing" (taking a series of tablets over a short period of time). One trend among young adults is referred to as "candy flipping," which is the co-use of MDMA and LSD.

MDMA is considered a "party drug" or "club drug" As with many other drugs, MDMA is rarely used alone. It is common for people to mix MDMA with other substances, such as alcohol and marijuana.

What is its effect on the mind?

MDMA mainly affects brain cells that use the chemical serotonin to communicate with each other. Serotonin helps to regulate mood, aggression, libido, sleep, and sensitivity to pain. Clinical studies suggest that MDMA may increase the risk of long-term, perhaps permanent, problems with memory and learning.

MDMA causes changes in perception, including euphoria and increased sensitivity to touch, energy, sensual and sexual arousal, need to be touched, and need for stimulation.

Some unwanted psychological effects include:

- Confusion, anxiety, depression, paranoia, sleep problems, and drug craving

MDMA/Ecstasy pills

The onset of these effects usually occur within 30 to 45 minutes after administration and usually last 4 to 6 hours, but they may last weeks.

What is its effect on the body?

Users of MDMA experience many of the same effects and face many of the same risks as users of other stimulants such as cocaine and amphetamines. These include increased motor activity, alertness, heart rate, and blood pressure. Some unwanted physical effects include:

- Muscle tension, tremors, involuntary teeth clenching, muscle cramps, nausea, faintness, chills, sweating, and blurred vision

Severe dehydration can result from the combination of the drug's effects and the crowded and hot conditions in which the drug is often taken.

Studies suggest chronic use of MDMA can produce damage to the serotonin system.

What are its overdose effects?

In high doses, MDMA can interfere with the body's ability to regulate temperature. On occasions, this can lead to a sharp increase in body temperature (hyperthermia), resulting in liver, kidney, or cardiovascular system failure, swelling of the brain, and even death. Furthermore, repeated use of MDMA over a short period of time may lead to potentially harmful concentrations of MDMA within the body due to the complex metabolism of MDMA.

Which drugs cause similar effects?

MDMA produces both amphetamine-like stimulation and mild mescaline-like hallucinations.

What is its legal status in the United States?

MDMA is a Schedule I drug under the Controlled Substances Act, meaning 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.

Ketamine

WHAT IS KETAMINE?

Ketamine is a dissociative anesthetic that has some hallucinogenic effects. Ketamine distorts the perception of sight and sound and makes the user feel disconnected and not in control. It is referred to as a "dissociative anesthetic hallucinogen" because it makes patients feel detached from their pain and environment.

Ketamine can induce a state of sedation (feeling calm and relaxed), immobility, relief from pain, and amnesia (no memory of events while under the influence of the drug) and is used for the dissociative sensations and hallucinogenic effects. Ketamine has also been used to facilitate sexual assault.

Ketamine is an approved medical product as an injectable, short-acting anesthetic for use in humans and animals and as esketamine (Spravato®; the active form of the drug) as a nasal spray for treatment resistant depression.

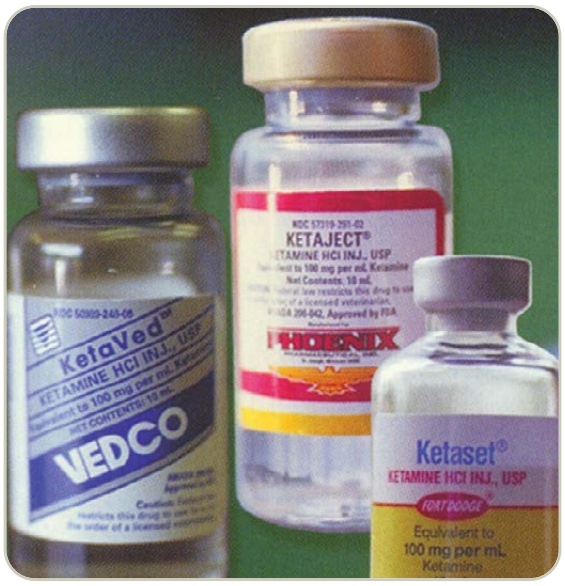
WHAT IS ITS ORIGIN?

Ketamine is produced commercially in a number of countries, including the United States. Most of the ketamine illegally distributed in the United States is diverted or stolen from legitimate sources, particularly veterinary clinics, or smuggled into the United States from Mexico.

Distribution of ketamine typically occurs among friends and acquaintances, most often at nightclubs, parties, music festivals, and concerts; street sales of ketamine are rare.

How is it used?

Ketamine, along with the other "club drugs," has become popular among teens and young adults at dance clubs, musical festivals, and concerts. Ketamine is manufactured commercially as a powder or liquid.



Vials containing liquid ketamine

What are common street names?

Common street names include:

- Cat Tranquilizer, Cat Valium, Jet K, Kit Kat, Purple, Special K, Special La Coke, Super Acid, Super K, and Vitamin K

What does it look like?

Ketamine comes in a clear liquid and a white or off-white powder. Powdered ketamine (100 mg to 200 mg) typically is packaged in small glass vials, small plastic bags, and capsules as well as paper, glassine, or aluminum foil folds.

Powdered ketamine is cut into lines known as bumps and snorted, or it is smoked, typically in marijuana or tobacco cigarettes. Liquid ketamine is injected or mixed into drinks. Ketamine is found by itself or often in combination with MDMA, amphetamine, methamphetamine, or cocaine.

What is its effect on the mind?

Ketamine produces hallucinations. It distorts perceptions of sight and sound and makes the user feel disconnected and not in control. A "Special K" trip is touted as better than that of LSD or PCP because its hallucinatory effects are relatively short in duration, lasting approximately 30 to 60 minutes as opposed to several hours.

Slang for experiences related to ketamine or effects of ketamine include:

- "K-land" (refers to a mellow and colorful experience)
- "K-hole" (refers to the out-of-body, near death experience)
- "Baby food" (users sink in to blissful, infantile inertia)
- "God" (users are convinced that they have met their maker)

The onset of effects is rapid and often occurs within a few minutes of taking the drug, though taking it orally results in a slightly slower onset of effects. Ketamine may cause unwanted side effects such as: agitation, depression, cognitive difficulties, unconsciousness, and amnesia.

Hallucinogen Persisting Perception Disorder has been reported several weeks after ketamine use and may include experiencing prolonged visual disturbances.

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What is its effect on the body?

A couple of minutes after taking the drug, the user may experience an increase in heart rate and blood pressure that gradually decreases over the next 10 to 20 minutes. Ketamine can make users unresponsive to stimuli. When in this state, users experience:

- Involuntarily rapid eye movement, dilated pupils, salivation, tear secretions, stiffening of the muscles, and possible nausea

Ketamine in various forms

What are its overdose effects?

An overdose can cause unconsciousness and dangerously slowed breathing.

Which drugs cause similar effects?

Other hallucinogenic drugs such as LSD, PCP, and mescaline can cause hallucinations. There are also several drugs such as GHB, Rohypnol®, and other depressants that are used for their amnesiac or sedative properties to facilitate sexual assault.

What is its legal status in the United States?

Since the 1970s, ketamine has been marketed in the United States as an injectable, short-acting anesthetic for use in humans and animals. In 1999, ketamine, including its salts, isomers, and salts of isomers, became a Schedule III non-narcotic substance under the Controlled Substances Act. It currently has accepted medical uses for short-term sedation and anesthesia. In addition, in 2019, FDA approved the S(+) enantiomer of ketamine (esketamine) nasal spray version (Spravato®) for treatment-resistant depression that is only available at a certified doctor's office or clinic. Ketamine has the potential for misuse, which may lead to moderate or low physical dependence or high psychological dependence.

LSD

WHAT IS LSD?

Lysergic acid diethylamide is a potent hallucinogen that has a high potential for misuse and currently has no accepted medical use in treatment in the United States.

WHAT IS ITS ORIGIN?

LSD is produced in clandestine laboratories in the United States.

What are common street names?

Common names for LSD include:

- Acid, Dots, Mellow Yellow, and Window Pane

What does it look like?

LSD is an odorless and colorless substance with a slightly bitter taste. LSD is available in saturated absorbent paper (e.g., blotter paper, divided into small, decorated squares, with each square representing one dose), tablets or "micro dots," saturated sugar cubes, or in a liquid form.

What is its effect on the body?

The physical effects include:

- Dilated pupils, higher body temperature, increased heart rate and blood pressure, sweating, loss of appetite, sleeplessness, dry mouth, and tremors

How is it used?

LSD is taken orally.

What is its effect on the mind?

During the first hour after ingestion, people may experience visual changes with extreme changes in mood. While under the influence, the person may suffer impaired depth and time perception accompanied by distorted perception of the shape and size of objects, movements, colors, sound, touch, and the person's own body image.

LSD blotter paper

The ability to make sound judgments and see common dangers is impaired, making the person susceptible to personal injury. It is possible for people to suffer acute anxiety and depression after an LSD "trip." Hallucinogen Persisting Perception Disorder, which may include fragmentary recurrences of certain aspects of the drug experience or "flashbacks" have been reported days, and even months, after taking the last dose.

What are its overdose effects?

Longer, more intense "trip" episodes may occur with larger doses. Serious psychological harm can occur after administration, including fear, paranoia, depression, and anxiety, and can be long-lasting. Death after LSD use is rare.

Which drugs cause similar effects?

LSD's effects are similar to other hallucinogens, such as PCP, mescaline, and psilocybin.

What is its legal status in the United States?

LSD is a Schedule I substance under the Controlled Substances Act. Schedule I substances have 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.

WHAT ARE PEYOTE AND MESCALINE?

Peyote is a small, spineless cactus. The active ingredient in peyote is the hallucinogen mescaline.

WHAT IS ITS ORIGIN?

From earliest recorded time, peyote has been used by indigenous peoples in northern Mexico and the southwestern United States as a part of their religious rites. Mescaline can be extracted from peyote or produced synthetically.

What is its effect on the body?

Following the consumption of peyote and mescaline, people may experience:

- Intense nausea, vomiting, dilation of the pupils, increased heart rate, increased blood pressure, a rise in body temperature that causes heavy perspiration, headaches, muscle weakness, and impaired motor coordination

Which drugs cause similar effects?

Other hallucinogens like LSD, psilocybin (mushrooms), and PCP

What are common street names?

Common street names include:

- Buttons, Cactus, Mesc, and Peyoto

What does it look like?

The top of the peyote cactus is referred to as the "crown" and consists of disc-shaped buttons that are cut off.

How is it used?

The fresh or dried buttons are chewed or soaked in water to produce an intoxicating liquid. Peyote buttons may also be ground into a powder that can be placed inside gelatin capsules to be swallowed, or smoked with a leaf material such as cannabis or tobacco.

What is its effect on the mind?

Use of peyote and mescaline will cause varying degrees of:

- Illusions, hallucinations, altered perception of space and time, and altered body image

People may also experience euphoria, which is sometimes followed by feelings of anxiety.

What is its legal status in the United States?

Peyote and mescaline are Schedule I substances under the Controlled Substances Act, meaning that they have 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.

Peyote cactus

Psilocybin

WHAT IS PSILOCYBIN?

Psilocybin comes from certain types of *psilocybe* mushrooms. Psilocybin is metabolized in the body to the active drug psilocyn, also present in many of the same mushrooms.

WHAT IS ITS ORIGIN?

Psilocybin mushrooms are found in many countries of the world, including Mexico, those in Central America, and the United States.

What are common street names?

Common street names include:

- Magic Mushrooms, Mushrooms, and Shrooms

What does it look like?

Mushrooms containing psilocybin are available fresh or dried and have long, slender stems topped by caps with dark gills on the underside. Fresh mushrooms have white or whitish-gray stems; the caps are dark brown around the edges and light brown or white in the center. Dried mushrooms are usually rusty brown with isolated areas of off-white. Psilocybin may by synthetically synthesized and found as a powder.

How is it used?

Psilocybin mushrooms or powder are generally ingested orally. They may also be brewed as a tea or added to other foods to mask their bitter flavor.

What is its effect on the body?

The physical effects include:

- Nausea, vomiting, muscle weakness, and lack of coordination

Psilocybin mushrooms

What is its effect on the mind?

The psychological consequences of psilocybin use include hallucinations and an inability to discern fantasy from reality. Panic reactions, paranoia, fear, anxiety, depression, or a psychotic-like episode also may occur, particularly if a user ingests a high dose. Psychological effects may be long lasting.

What are its overdose effects?

Effects of overdose include:

- Longer, more intense "trip" episodes, challenging experiences (physical and emotional), psychosis, and possible death

Use of psilocybin mushrooms could lead to accidental poisoning if the mushroom thought to be a psilocybin-containing mushroom is misidentified as one of the many varieties of poisonous mushrooms.

Which drugs cause similar effects?

Psilocybin effects are similar to other hallucinogens, such as mescaline and LSD.

What is its legal status in the United States?

Psilocybin 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.

Psilocybin mushrooms

WHAT ARE STEROIDS?

Anabolic steroids are synthetically produced variants of the naturally occurring male hormone testosterone that are used in an attempt to promote muscle growth, enhance athletic or other physical performance, and improve physical appearance.

Testosterone, trenbolone, oxymetholone, methandrostenolone, nandrolone, stanozolol, boldenone, and oxandrolone are some of the anabolic steroids that are most commonly encountered by United States law enforcement.

WHAT IS THEIR ORIGIN?

Most illicit steroids are smuggled into the U.S. from abroad. Steroids are also illegally diverted from legitimate sources (theft or inappropriate prescribing). The internet is the most widely used means of buying and selling anabolic steroids. Steroids are also bought and sold at gyms, bodybuilding competitions, and schools from teammates, coaches, and trainers.

Depo-Testosterone

Testosterone Cypionate Injection, USP

What are common street names?

Common street names include:

- Arnolds, Juice, Pumpers, Roids, Stackers, and Weight Gainers

What do they look like?

Steroids are available in:

- Tablets and capsules, sublingual tablets, liquid drops, gels, creams, transdermal patches, subdermal implant pellets, and water-based and oil-based injectable solutions

The appearance of these products varies depending on the type and manufacturer.

How are they used?

Steroids are ingested orally, injected intramuscularly, or applied to the skin. The doses used are often 10 to 100 times higher than the approved therapeutic and medical treatment dosages. People typically take two or more anabolic steroids at the same time in a cyclic manner, believing this will improve their effectiveness and minimize the adverse effects.

What is their effect on the mind?

Case studies and scientific research indicate that high doses of anabolic steroids may cause mood and behavioral effects.

In some individuals, anabolic steroid use can cause dramatic mood swings, increased feelings of hostility, impaired judgment, and increased levels of aggression (often referred to as “roid rage”).

When people stop taking steroids, they may experience depression that may be severe enough to lead one to attempt suicide.

Anabolic steroid use may also cause psychological dependence and addiction.

What is their effect on the body?

A wide range of adverse effects is associated with the use or misuse of anabolic steroids. These effects depend on several factors including:

- Age, sex, the anabolic steroid used, amount used, and duration of use

In adolescents, anabolic steroid use can stunt the ultimate height that an individual might otherwise achieve.

In boys, anabolic steroid use can cause early sexual development, acne, and stunted growth.

In adolescent girls and women, anabolic steroid use can induce permanent physical changes, such as deepening of the voice, increased facial and body hair growth, menstrual irregularities, male pattern baldness, and lengthening of the clitoris.

In men, anabolic steroid use can cause shrinkage of the testicles, reduced sperm count, enlargement of the male breast tissue, sterility, and an increased risk of prostate cancer.

In both men and women, anabolic steroid use can cause high cholesterol levels, which may increase the risk of coronary artery disease, strokes, and heart attacks. Anabolic steroid use can also cause acne and fluid retention. Oral preparations of anabolic steroids, in particular, can damage the liver.

People who inject anabolic steroids run the risk of contracting various infections due to nonsterile injection techniques, sharing of contaminated needles, and the use of steroid preparations manufactured in nonsterile environments. All these factors put users at risk for contracting viral infections such as HIV/AIDS or hepatitis B or C, and bacterial infections at the sight of injection.

People may also develop endocarditis, a bacterial infection that causes a potentially fatal inflammation of the heart lining.

What are their overdose effects?

Anabolic steroids are not associated with overdoses. The adverse effects a person would experience develop from the use of steroids over time.

Which drugs cause similar effects?

There are several substances that produce effects similar to those of anabolic steroids. These include human growth hormone, clenbuterol, gonadotropins, and erythropoietin.

What is their legal status in the United States?

Anabolic steroids are Schedule III substances under the Controlled Substances Act. Only a small number of anabolic steroids are approved for either human or veterinary use. Anabolic steroids may be prescribed by a licensed physician for the treatment of testosterone deficiency, delayed puberty, low red blood cell count, breast cancer, and tissue wasting resulting from AIDS.

Marijuana/Cannabis

WHAT IS MARIJUANA?

Marijuana is a mind-altering (psychoactive) drug, produced by the *Cannabis sativa* plant. Marijuana has over 480 constituents. THC (delta-9-tetrahydrocannabinol) is believed to be the main ingredient that produces the psychoactive effect.

WHAT IS ITS ORIGIN?

Marijuana is grown in the United States, Canada, Mexico, South America, Caribbean, Africa, and Asia.

It can be cultivated in both outdoor and indoor settings.

What are common street names?

Common street names include:

- Aunt Mary, BC Bud, Blunts, Boom, Chronic, Dope, Gangster, Ganja, Grass, Hash, Herb, Hydro, Indo, Joint, Kif, Mary Jane, Mota, Pot, Reefer, Sinsemilla, Skunk, Smoke, Weed, and Yerba

What does it look like?

Marijuana is a dry, shredded green/brown mix of flowers, stems, seeds, and leaves from the *Cannabis sativa* plant. The mixture typically is green, brown, or gray in color and may resemble tobacco.

How is it used?

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

What is its effect on the mind?

When marijuana is smoked, the active ingredient THC passes from the lungs and into the bloodstream, which carries the chemical to the organs throughout the body, including the brain. In the brain, THC connects to specific sites called cannabinoid receptors on nerve cells and influences the activity of those cells.

Many of these receptors are found in the parts of the brain that influence:

- Pleasure, memory, thought, concentration, sensory and time perception, and coordinated movement

The short-term effects of marijuana include:

- Problems with memory and learning, distorted perception, difficulty in thinking and problem-solving, and loss of coordination

The effect of marijuana on perception and coordination are responsible for serious impairments in learning, associative processes, and psychomotor behavior (driving abilities).

Long term, regular use can lead to physical dependence and withdrawal following discontinuation, as well as psychological addiction or dependence.

Clinical studies show that the physiological, psychological, and behavioral effects of marijuana vary among individuals and present a list of common responses to cannabinoids, as described in the scientific literature:

- Dizziness, nausea, tachycardia, facial flushing, dry mouth, and tremor initially
- Merriment, happiness, and even exhilaration at high doses

Marijuana Leaves

- Disinhibition, relaxation, increased sociability, and talkativeness
- Enhanced sensory perception, giving rise to increased appreciation of music, art, and touch
- Heightened imagination leading to a subjective sense of increased creativity
- Time distortions
- Illusions, delusions, and hallucinations are rare except at high doses
- Impaired judgment, reduced coordination, and ataxia, which can impede driving ability or lead to an increase in risk-taking behavior
- Emotional lability, incongruity of affect, dysphoria, disorganized thinking, inability to converse logically, agitation, paranoia, confusion, restlessness, anxiety, drowsiness, and panic attacks may occur, especially in inexperienced users or in those who have taken a large dose
- Increased appetite and short-term memory impairment are common

What is its effect on the body?

Short-term physical effects from marijuana use may include:

- Sedation, bloodshot eyes, increased heart rate, coughing from lung irritation, increased appetite, and increased blood pressure (although prolonged use may cause a decrease in blood pressure).

Marijuana smokers experience serious health problems such as bronchitis, emphysema, and bronchial asthma. Extended use may cause suppression of the immune system. Withdrawal from chronic use of high doses of marijuana causes physical signs including headache, shakiness, sweating, and stomach pains and nausea.

Withdrawal symptoms also include behavioral signs such as:

- Restlessness, irritability, sleep difficulties, and decreased appetite

What are its overdose effects?

No deaths from overdose of marijuana have been reported. Although, there have been an increasing number of emergency room visits involving marijuana edibles.

Which drugs cause similar effects?

Hashish and hashish oil are drugs made from the cannabis plant that are like marijuana, only stronger.

Hashish (hash) consists of the THC-rich resinous material of the cannabis plant, which is collected, dried, and then compressed into a variety of forms, such as balls, cakes, or cookie-like sheets. Pieces are then broken off, placed in pipes or mixed with tobacco and placed in pipes or cigarettes, and smoked.

The main sources of hashish are the Middle East, North Africa, Pakistan, and Afghanistan.

Hashish oil (hash oil, liquid hash, cannabis oil) is produced by extracting the cannabinoids from the plant material with a solvent. The color and odor of the extract will vary, depending on the solvent used. A drop or two of this liquid on a cigarette is equal to a single marijuana joint. Like marijuana, hashish and hashish oil are both Schedule I drugs.

What is its legal status in the United States?

Marijuana, unless hemp, 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.

Although some states within the United States have allowed the use of marijuana for medicinal purpose, it is the U.S. Food and Drug Administration that has the federal authority to approve drugs for medicinal use in the U.S. To date, FDA has not approved a marketing application for any marijuana product for any clinical indication. Consistent therewith, FDA and DEA have concluded that marijuana has no federally approved medical use for treatment in the U.S. and thus it remains as a Schedule I controlled substance under federal law.

Marinol is a synthetic version of THC in a capsule (also referred to as dronabinol, the generic or International Nonproprietary Name given to THC), prescribed for the control of nausea and vomiting caused by chemotherapeutic agents used in the treatment of cancer and to stimulate appetite in AIDS patients. Marinol is a Schedule III drug under the Controlled Substances Act.

Syndros is an oral dronabinol (THC) solution that is used for the treatment of anorexia associated with weight loss in patients who have failed to respond adequately to conventional antiemetic treatments. Syndros is a Schedule II drug under the Controlled Substances Act.

Epidiolex is an oral solution of cannabidiol (CBD) that has no more that 0.1% THC, used to treat two epilepsy conditions, Dravet syndrome and Lennox-Gestaut syndrome. Epidiolex is excluded from control under the Controlled Substances Act by virtue of the Agriculture Improvement Act of 2018, Public Law 115-334.

WHAT ARE MARIJUANA CONCENTRATES?

A marijuana concentrate is a highly potent concentrated form of THC (tetrahydrocannabinol) that is most similar in appearance to either honey or butter, and commonly referred to or known on the street as "honey oil" or "budder."

WHAT IS ITS ORIGIN?

Marijuana concentrates contain extraordinarily high THC levels that could range from 40 to 80 percent. This form of marijuana can be up to four times higher in THC content than high grade or top shelf marijuana, which normally measures around 20 percent THC levels.

Many methods are used to convert or "manufacture" marijuana into marijuana concentrates. One method is the butane extraction process. This process is particularly dangerous because it uses highly flammable butane to extract the THC from the cannabis plant. Given the flammable nature of butane, this process has resulted in violent explosions. THC extraction labs are being reported nationwide, particularly in the western states and in states where local and state marijuana laws are more relaxed.

Marijuana concentrate
Image by Erik Fenderson

What are common street names?

Common street names include:

- 710 (the word "OIL" flipped and spelled backward), wax, ear wax, honey oil, budder, butane hash oil, butane honey oil (BHO), shatter, dabs (dabbing), black glass, and errl.

What does it look like?

Marijuana concentrates are similar in appearance to honey or butter and are either brown or gold in color.

How is it used?

Marijuana concentrates can be mixed with various food or drink products to be consumed orally; however, smoking remains the most popular route of administration by use of water or oil pipes. A disturbing aspect of this emerging threat is the inhalation of concentrates via electronic cigarettes (also known as e-cigarettes) or vaporizers. Many marijuana concentrate users prefer the e-cigarette/vaporizer because it is smokeless, sometimes odorless, and easy to hide or conceal. The user takes a small amount of marijuana concentrate, referred to as a "dab," then heats the substance using the e-cigarette/vaporizer producing vapors that ensures an instant "high" effect upon the user. Using an e-cigarette/vaporizer to inhale marijuana concentrates is commonly referred to as "dabbing" or "vaping."

Vaping

What is Vaping?

Vaping is the act of inhaling and exhaling an aerosol or vapor made from a liquid or dry material that is heated in an electronic powered device, called an electronic cigarette, or e-cigarette. The liquid can contain flavoring, nicotine, or marijuana concentrates. Dry herb vape devices can heat dry marijuana without combusting it and without using additional liquid. Generally, the vaping device consists of a battery, a cartridge for containing the e-liquid or dry marijuana, and a heating component. Vaping devices come in a variety of shapes and sizes, with some resembling USB flash drives, pens, or other everyday objects that are often difficult for parents and teachers to recognize.

What are common street names?

- Common street names include: E-cigs, e-hookahs, mods, vape pens, vapes, tank systems, and Juuls or Juuling (after the Juul brand of vaping devices).

What are the effects of vaping?

Vaping is not considered safe, especially for teens and young adults, since the adolescent brain is still developing and inhaling any substance through these devices may be harmful. Additionally, some devices might explode, resulting in burns and other injuries. Most vaping devices contain and release a number of potentially toxic substances including metals and volatile organic compounds from the devices and solvents used. Some of these have been linked to cell and DNA damage. Inhaling the heated air and contents has been shown to burn lung tissue.

Source: National Academies of Sciences, Engineering, and Medicine, 2018. Public Health Consequences of E-Cigarettes.

What are the Effects of Using Marijuana Concentrates?

Being a highly concentrated form of marijuana, the effects upon the person may be more psychologically and physically intense than plant marijuana use. To date, long term effects of marijuana concentrate use are not yet fully known; but the effects of marijuana use are known.

These effects include:

- paranoia, anxiety, panic attacks, and hallucinations. Additionally, the use of plant marijuana increases one's heart rate and blood pressure, although prolonged use can produce hypotension. Plant marijuana users may also experience withdrawal and addiction problems.

Inhalants

WHAT ARE INHALANTS?

Inhalants are invisible, volatile substances found in common household products that produce chemical vapors that are inhaled to induce psychoactive or mind altering effects.

WHAT IS THEIR ORIGIN?

There are more than 1,000 products that are very dangerous when inhaled — things like typewriter correction fluid, air conditioning refrigerant, felt tip markers, spray paint, air freshener, butane, and even cooking spray. See products used as inhalants at www.inhalants.org/product.htm (National Inhalant Prevention Coalition).

What are common street names?

Common street names include:

- Gluey, Huff, Rush, and Whippets

What do they look like?

Common household products such as glue, lighter fluid, cleaning fluids, and paint all produce chemical vapors that can be inhaled.

Paint thinner

How are they misused?

Although other misused substances can be inhaled, the term "inhalants" is used to describe a variety of substances whose main common characteristic is that they are rarely, if ever, taken by any route other than inhalation.

Inhalants are breathed in through the nose or the mouth in a variety of ways, such as:

- "Sniffing" or "snorting"
- "Bagging"— sniffing or inhaling fumes from substances sprayed or deposited inside a plastic or paper bag
- "Huffing" from an inhalant-soaked rag stuffed in the mouth, or inhaling from balloons filled with nitrous oxide

Inhalants are often among the first drugs that young children use. About 1 in 5 kids report having used inhalants by the eighth grade. Inhalants are also one of the few substances misused more by younger children than by older ones.

What is their effect on the mind?

Inhalant use can cause damage to the parts of the brain that control thinking, moving, vision, and hearing. Cognitive abnormalities can range from mild impairment to severe dementia.

What is their effect on the body?

Inhaled chemicals are rapidly absorbed through the lungs into the bloodstream and quickly distributed to the brain and other organs. Nearly all inhalants produce effects similar to anesthetics, which slow down the body's function. Depending on the degree of use, the user can experience slight stimulation, feeling of less inhibition, or loss of consciousness.

Within minutes of inhalation, the user experiences

Highlighter markers

intoxication along with other effects similar to those produced by alcohol. These effects may include slurred speech, an inability to coordinate movements, euphoria, and dizziness. After heavy use of inhalants, users may feel drowsy for several hours and experience a lingering headache.

Additional symptoms exhibited by long-term inhalant users include:

- Weight loss, muscle weakness, disorientation, inattentiveness, lack of coordination, irritability, depression, and damage to the nervous system and other organs

Some of the damaging effects to the body may be at least partially reversible when inhalant use is stopped; however, many of the effects from prolonged use are irreversible.

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. There is a common link between inhalant use and problems in school — failing grades, chronic absences, and general apathy.

Other signs include:

- Paint or stains on body or clothing; spots or sores around the mouth; red or runny eyes or nose; chemical breath odor; drunk, dazed, or dizzy appearance; nausea; loss of appetite; anxiety; excitability; and irritability

What are their overdose effects?

Because intoxication lasts only a few minutes, people try to prolong the high by continuing to inhale repeatedly over the course of several hours, which is a very dangerous practice. With successive inhalations, people may suffer loss of consciousness and/or death.

"Sudden sniffing death" can result from a single session of inhalant use by an otherwise healthy person. Sudden sniffing death is particularly associated with the misuse of butane, propane, and chemicals in aerosols.

Inhalant use can also cause death by asphyxiation from repeated inhalations, which lead to high concentrations of inhaled fumes displacing the available oxygen in the lungs, suffocation by blocking air from entering the lungs when inhaling fumes from a plastic bag placed over the head, and choking from swallowing vomit after inhaling substances.

Which drugs cause similar effects?

Most inhalants produce a rapid high that is similar to the effects of alcohol intoxication.

What is their legal status in the United States?

The common household products that are misused as inhalants are legally available for their intended and legitimate uses. Many state legislatures have attempted to deter youth who buy legal products to get high by placing restriction on the sale of these products to minors.

Even though some substances are not currently controlled by the Controlled Substances Act, they pose risks to individuals who misuse them.

Designer Drugs

The use of clandestinely synthesized drugs contiues to be a major worldwide problem. These drugs are illicitly produced with the intent of developing substances that differ slightly from controlled substances in their chemical structure while retaining their pharmacological effects. These substances are commonly known as designer drugs and fall under several drug categories. The following section describes these drugs of concern and their associated risks.

Bath salts

Bath Salts

WHAT ARE "BATH SALTS?"

Synthetic stimulants often referred to as "bath salts" are from the synthetic cathinone class of drugs. Synthetic cathinones are central nervous stimulants and are designed to mimic effects similar to those produced by cocaine, methamphetamine, and MDMA (ecstasy). These substances are often marketed as "bath salts," "research chemicals," "plant food," "glass cleaner," and labeled "not for human consumption," in order to circumvent application of the Controlled Substance Analogue Enforcement Act. Marketing in this manner attempts to hide the true reason for the products' existence—the distribution of a psychoactive/stimulant substance for use.

WHAT IS THEIR ORIGIN?

Synthetic cathinones are manufactured in East Asia and have been distributed at wholesale levels throughout Europe, North America, Australia, and other parts of the world.

What are common street names?

- Bliss, Blue Silk, Cloud Nine, Drone, Energy-1, Ivory Wave, Lunar Wave, Meow Meow, Ocean Burst, Pure Ivory, Purple Wave, Red Dove, Snow Leopard, Stardust, Vanilla Sky, White Dove, White Knight, White Lightning

What does it look like?

Websites have listed products containing these synthetic stimulants as "plant food" or "bath salts," however, the powdered form is also compressed in gelatin capsules. The synthetic stimulants are sold at smoke shops, head shops, convenience stores, adult book stores, gas stations, and on websites and often labeled "not for human consumption."

How are they used?

"Bath salts" are usually ingested by sniffing/snorting. They can also be taken orally, smoked, or put into a solution and injected into veins.

What are their effects on the mind?

These synthetic substances are used for their desired effects, such as euphoria and alertness. Other effects that have been reported from the use of these drugs include psychological effects such as confusion, acute psychosis, agitation, combativeness, aggressive, violent, and self-destructive behavior; as well as paranoia, hallucinations, and delusions.

What is their effect on the body?

Adverse or toxic effects associated with the use of cathinones, including synthetic cathinones, include rapid heartbeat; hypertension; hyperthermia; prolonged dilation of the pupil of the eye; breakdown of muscle fibers that leads to release of muscle fiber contents into bloodstream; teeth grinding; sweating; headaches; palpitations; seizures.

What are their overdose effects?

In addition to effects on the mind and body, reports of death from individuals using drugs in this class indicate the seriousness of the risk people are taking when ingesting these products.

Which drugs cause similar effects?

They cause effects similar to those of other stimulants such as methamphetamine, MDMA, and cocaine.

What is their legal status in the United States?

In July 2012, the U.S. Government passed Pub.L. 112-144, the Synthetic Drug Abuse Prevention Act, which classified a number of synthetic substances under Schedule I of the Controlled Substances Act. SDAPA 15 synthetic cannabinoid compounds identified by name two synthetic cathinone compounds (mephedrone and MDPV), and nine synthetic hallucinogens known as the 2C family in the most restrictive category of controlled substances. These substances were restricted by this law. Subsequently, methylone and 10 synthetic cathinones that were subject to temporary control were permanently controlled by DEA through the administrative process. Another synthetic cathinone, N-ethylpentylone, was controlled in 2018 and six other synthetic cathinones, N-ethylhexedrone, α-PHP, 4-MEAP, MPHP, PV8, and 4-Chloro-α-PHP, were temporarily controlled in 2019. A new substance, N,N-dimethylpentylone, has been the major cathinone seized by law enforcement in 2023 and has been responsible for multiple fatal overdoses.

Other synthetic cathinones may be subject to prosecution under the Controlled Substance Analogue Enforcement Act, which allows these dangerous substances to be treated as Schedule I controlled substances if certain criteria can be met.

K2/Spice

WHAT IS K2?

K2 and Spice are just two of the many trade names or brands for synthetic designer drugs that are intended to mimic THC, the main psychoactive ingredient of marijuana. These designer synthetic drugs are from the synthetic cannabinoid class of drugs that are often marketed and sold under the guise of "herbal incense" or "potpourri."

Synthetic cannabinoids are not organic, but are chemical compounds created in a laboratory. Since 2009, law enforcement has encountered hundreds of different synthetic cannabinoids that are being sold as "legal" alternatives to marijuana. These products are being used for their psychoactive properties and are packaged without information as to their health and safety risks.

Synthetic cannabinoids are sold at small convenience stores, head shops, gas stations, and onliine from both domestic and international sources. These products are labeled "not for human consumption" in an attempt to shield the manufacturers, distributors, and retail sellers from criminal prosecution. This type of marketing is nothing more than a means to make dangerous, psychoactive substances widely available to the public.

WHAT IS ITS ORIGIN?

The vast majority of synthetic cannabinoids are manufactured in Asia without manufacturing requirements or quality control standards. The bulk powdered chemical is smuggled into the United States typically as misbranded imports and have no legitimate medical or industrial use.

What are common street names?

There are numerous street names of synthetic cannabinoids as drug manufacturers try to appeal to and entice youth and young adults by labeling these products with exotic and extravagant packaging. Some of the many street names of K2/Spice synthetic marijuana are:

- Spice, K2, Blaze, RedX Dawn, Paradise, Demon, Black Magic, Spike, Mr. Nice Guy, Ninja, Zohai, Dream, Genie, Sence, Smoke, Skunk, Serenity, Yucatan, Fire, Skooby Snax, and Crazy Clown.

K2/Spice

What does it look like?

These chemical compounds are generally found in bulk powder form, and then dissolved in solvents, such as acetone, before being applied to dry plant material to make the "herbal incense" products. After local distributors apply the drug to the dry plant material, they package it for retail distribution. As these products have no accepted medical use, this process is done without pharmaceutical-grade chemical purity standards, or any concern for the user. It ignores any control mechanisms that would serve to ensure a uniform concentration of the powerful and dangerous drugs contained in each package. The disregard for the public's safety and often encountered "hot spots" in the drug packaging can result in a person ingesting a highly concentrated portion of the drugs without their knowledge, often leading to serious adverse health effects. The bulk powder can also be dissolved in solution intended to be used in e-cigarette or other vaping devices.

How is it used?

Spraying or mixing the synthetic cannabinoids on plant material provides a vehicle for the most common route of administration - smoking (using a pipe, a water pipe, or rolling the drug-laced plant material in cigarette papers). In addition to the cannabinoids laced on plant material and sold as potpourri and incense, liquid cannabinoids have been designed to be vaporized through both disposable and reusable electronic cigarettes.

What are its overdose effects?

Severe adverse effects have been attributed to the use of synthetic cannabinoids, including nausea, vomiting, agitation, anxiety, seizures, stroke, coma, and death by heart attack or organ failure. Acute kidney injury requiring hospitalization and dialysis in several patients reportedly having smoked synthetic cannabinoids has also been reported by the Centers for Disease Control and Prevention.

Which drugs cause similar effects?

Synthetic cannabinoids are marketed as an alternative to THC, the main psychoactive constituent of marijuana, however they are much more potent and have been shown to cause side effects that are more severe than those reported from THC.

What is its effect on the mind?

Acute psychotic episodes, dependence, and withdrawal are associated with use of these synthetic cannabinoids. Some individuals have suffered from intense hallucinations. Other effects include severe agitation, disorganized thoughts, paranoid delusions, and violence after smoking products laced with these substances.

What is its effect on the body?

State public health and poison centers have issued warnings in response to adverse health effects associated with use of herbal incense products containing these synthetic cannabinoids. These adverse effects included tachycardia (elevated heart rate), elevated blood pressure, unconsciousness, tremors, seizures, vomiting, hallucinations, agitation, anxiety, pallor, numbness, and tingling. This is in addition to the numerous public health and poison centers which have similarly issued warnings regarding the use of these synthetic cannabinoids. In some instances, the adverse health effects can be long-lasting even after the person quits using the substances.

What is its legal status in the United States?

These substances have no accepted medical use in the United States and have been reported to produce adverse health effects. Currently, 49 substances are specifically listed as Schedule I substances under the Controlled Substances Act either through legislation or regulatory action. In addition there are many other synthetic cannabinoids that meet the definition for "cannabimimetic agent" under the Controlled Substances Act and thus are Schedule I substances.

There are many synthetic cannabinoid substances that are being sold as "incense," "potpourri," and other products that are not controlled substances. However, synthetic cannabinoids may be subject to prosecution under the Controlled Substance Analogue Enforcement Act which allows noncontrolled drugs to be treated as Schedule I controlled substances if certain criteria can be met. DEA has successfully investigated and prosecuted individuals trafficking and selling these dangerous substances using the Controlled Substance Analogue Enforcement Act.

Synthetic Opioids

WHAT ARE SYNTHETIC OPIOIDS?

Synthetic opioids are substances that are synthesized in a laboratory and that act on the same targets in the brain as natural opioids (e.g., morphine and codeine) to produce analgesic (pain relief) effects. In contrast, natural opioids are naturally occurring substances extracted from the seed pod of certain varieties of poppy plants. Some synthetic opioids, such as fentanyl, methadone, and buprenorphine have been approved for medical use.

Clandestinely produced synthetic opioids structurally related to the Schedule II opioid analgesic fentanyl were trafficked and used on the West Coast in the late 1970s and 1980s. In the 1980s, DEA controlled several of these illicitly produced synthetic opioids such as alpha-methylfentanyl, 3-methylthiofentanyl, acetyl-alpha-methylfentanyl, beta-hydroxy-3-methylfentanyl, alpha-methylthiofentanyl, thiofentanyl, beta-hydroxyfentanyl, para-fluorofentanyl, and 3-methylfentanyl.

As of 2013, there has been a re-emergence in the trafficking and use of various clandestinely produced synthetic opioids, including several substances related to fentanyl. Some common illicitly produced synthetic opioids that are currently encountered by law enforcement include, but are not limited to, acetyl fentanyl, butyryl fentanyl, beta- hydroxythiofentanyl, furanyl fentanyl, 4-fluoroisobutyryl fentanyl, acryl fentanyl, U-47700, and benzimidazole-opioids such as etonitazene and isotonitazene.

Clandestinely produced fake oxycodone tablets that contain fentanyl.

WHAT IS THEIR ORIGIN?

Synthetic opioids are believed to be synthesized abroad and then imported into the United States.

What do they look like?

Clandestinely produced synthetic opioids have been encountered in powder form and were identified on bottle caps and spoons, detected within glassine bags, on digital scales, and on sifters which demonstrates the use of these substances as replacements for heroin or other opioids. These drugs are also encountered as tablets, mimicking pharmaceutical opioid products. Clandestinely produced synthetic opioids are encountered as a single substance in combination with other opioids (fentanyl, heroin, U-47700, benzimidazole-opioids e.g., etonitazene and isotonitazene) or other substances.

New Emerging Synthetic Opioids-Benzimidazole-Opioids (Nitazenes)

Since 2019, the use of benzimidazole-opioids, commonly referred to as “nitazenes” has resulted in adverse health effects including deaths. This class of synthetic opioids have no approved medical use. The population likely to use benzimidazole-opioids appears to be the same as those using prescription opioid analgesics, heroin, and other synthetic opioid substances. Because users of these benzimidazole-opioids are likely to obtain them through unregulated sources, the identity, purity, and quantity are uncertain and inconsistent, thus posing significant adverse health risks to the users.

Clonitazene

How are they used?

Use of clandestinely produced synthetic opioids parallels that of heroin and prescription opioid analgesics. Many of these illicitly produced synthetic opioids are more potent than morphine and heroin and thus have the potential to result in a fatal overdose.

What are their effects?

Some effects of clandestinely produced synthetic opioids, similar to other commonly used opioid analgesics (e.g., morphine), may include relaxation, euphoria, pain relief, sedation, confusion, drowsiness, dizziness, nausea, vomiting, urinary retention, pupillary constriction, and respiratory depression.

What are their overdose effects?

Overdose effects of clandestinely produced synthetic opioids are similar to other opioid analgesics. These effects may include stupor, changes in pupillary size, cold and clammy skin, cyanosis, coma, and respiratory failure leading to death. The presence of triad of symptoms such as coma, pinpoint pupils, and respiratory depression are strongly suggestive of opioid poisoning.

Which drugs cause similar effects?

Some drugs that cause similar effects include other opioids such as morphine, hydrocodone, oxycodone, hydromorphone, methadone, and heroin.

What is their legal status in the United States?

Many synthetic opioids are currently controlled under the Controlled Substances Act. DEA temporarily placed U-47700, isotonitazene, and several other substances that are structurally related to fentanyl, such as acetyl fentanyl, butyryl fentanyl, beta-hydroxythiofentanyl, and furanyl fentanyl, in Schedule I of the Controlled Substances Act. In February 2018, DEA temporarily placed fentanyl-related substances in Schedule I of the CSA. Other synthetic opioid substances may be subject to prosecution under the Controlled Substance Analogue Enforcement Act which allows noncontrolled substances to be treated as Schedule I substances if certain criteria are met. DEA has successfully investigated and prosecuted individuals trafficking and selling these dangerous substances using the Controlled Substances Analogue Enforcement Act.

Even though some substances are not currently controlled by the Controlled Substances Act, they pose risks to individuals who use them. The following section describes these drugs of concern and their associated risks.

DXM

WHAT IS DXM?

Dextromethorphan is a cough suppressant found in more than 120 over-the-counter cold medications, either alone or in combination with other drugs such as analgesics (e.g., acetaminophen), antihistamines (e.g., chlorpheniramine), decongestants (e.g., pseudoephedrine), and/ or expectorants (e.g., guaifenesin). The typical adult dose for cough is 15 to 30 mg taken three to four times daily. The cough-suppressing effects of DXM persist for 5 to 6 hours after ingestion. When taken as directed, side effects are rarely observed.

WHAT IS ITS ORIGIN?

DXM users can obtain the drug at almost any pharmacy or supermarket, seeking out the products with the highest concentration of the drug from among all the OTC cough and cold remedies that contain it. DXM products and powder can also be purchased online.

What are common street names?

Common street names include:

- CCC, Dex, DXM, Poor Man's PCP, Robo, Rojo, Skittles, Triple C, and Velvet

What does it look like?

DXM can come in the form of:

- Cough syrup, tablets, capsules, or powder

How is it used?

DXM is misused in high doses to experience euphoria and visual and auditory hallucinations. People take various amounts depending on their body weight and the effect they are attempting to achieve. Some people ingest 250 to 1,500 milligrams in a single dosage, far more than the recommended therapeutic dosages described above.

Illicit use of DXM is referred to on the street as "Robo-tripping," "skittling," or "dexing," derived from the products that are most commonly misused, Robitussin and Coricidin HBP. DXM misuse has traditionally involved drinking large volumes of the OTC liquid cough preparations. More recently, however, misuse of tablet and gel capsule preparations has increased.

These newer, high-dose DXM products have particular appeal for people. They are much easier to consume, eliminate the need to drink large volumes of unpleasant-tasting syrup, and are easily portable and concealed, allowing a person to continue to misuse DXM throughout the day, whether at school or work.

DXM powder, sold online, is also a source of DXM for misuse. (The powdered form of DXM poses additional risks to the person due to the uncertainty of composition and dose.)

DXM is also distributed in illicitly manufactured tablets containing only DXM or mixed with other drugs such as pseudoephedrine and/ or methamphetamine.

DXM is misused by individuals of all ages, but its misuse by teenagers and young adults is of particular concern. This misuse is fueled by DXM's OTC availability and extensive "how to" information on various websites.

What is its effect on the mind?

Some of the many psychoactive effects associated with high-dose DXM include:

- Confusion, inappropriate laughter, agitation, paranoia, euphoria, and hallucinations
- Other sensory changes, including the feeling of floating and changes in hearing and touch

Long-term misuse of DXM is associated with severe psychological dependence. People who misuse DXM describe the following three dose-dependent "plateaus":

What is its effect on the body?

DOSE (MG)	BEHAVIORAL EFFECTS
100-200	Mild Stimulation
200-400	Euphoria and hallucinations
500-1500	Distorted visual perceptions Loss of motor coordination Out of body sensations

DXM intoxication involves:

- Overexcitability, lethargy, loss of coordination, slurred speech, sweating, hypertension, nausea, vomiting, and involuntary spasmodic movement of the eyeballs

The use of high doses of DXM in combination with alcohol or other drugs is particularly dangerous, and deaths have been reported. Approximately 5-10 percent of Caucasians are poor DXM metabolizers and at increased risk for overdoses and deaths. DXM taken with antidepressants can be life threatening.

OTC products that contain DXM often contain other ingredients such as acetaminophen, chlorpheniramine, and guaifenesin that have their own effects, such as:

- Liver damage, rapid heart rate, lack of coordination, vomiting, seizures, and coma

To circumvent the many side effects associated with these other ingredients, a simple chemical extraction procedure has been developed and published online that removes most of these other ingredients in cough syrup.

What are its overdose effects?

DXM overdose can be treated in an emergency room setting and generally does not result in severe medical consequences or death. Most DXM-related deaths are caused by ingesting the drug in combination with other drugs. DXM-related deaths also occur from impairment of the senses, which can lead to accidents.

Which drugs cause similar effects?

Depending on the dose, DXM can have effects similar to marijuana or ecstasy. In moderate to high doses its out-of-body effects are similar to those of ketamine or PCP.

What is its legal status in the United States?

DXM is a legally marketed cough suppressant that is neither a controlled substance nor a regulated chemical under the Controlled Substances Act.

Kratom

WHAT IS KRATOM?

Kratom is a tropical tree native to Southeast Asia. Consumption of its leaves produces both stimulant effects (in low doses) and sedative effects (in high doses), and can lead to psychotic symptoms, and psychological and physiological dependence. Kratom leaves contain two major psychoactive ingredients (mitragynine and 7-hydroxymytragynine). These leaves are crushed and then smoked, brewed with tea, or placed into gel capsules. Kratom has a long history of use in Southeast Asia, where it is commonly known as thang, kakuam, thom, ketum, and biak. In the U.S., the use of kratom has increased markedly in recent years.

Kratom tree

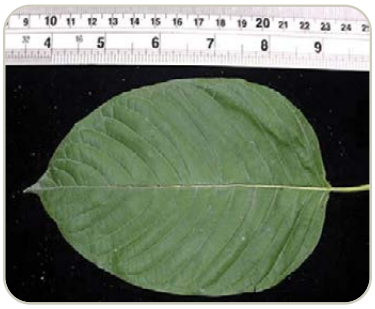
How is it used?

Mostly used by oral ingestion in the form of a tablet, capsule, or extract. Kratom leaves may also be dried or powdered and ingested as a tea, or the kratom leaf may be chewed.

What are the effects?

At low doses, kratom produces stimulant effects with people reporting increased alertness, physical energy, and talkativeness. At high doses, people experience sedative effects. Kratom consumption can lead to addiction.

Several cases of psychosis resulting from use of kratom have been reported, where individuals addicted to kratom exhibited psychotic symptoms, including hallucinations, delusion, and confusion.



Leaf of kratom tree

What does it do to the body?

Kratom's effects on the body include nausea, itching, sweating, dry mouth, constipation, increased urination, tachycardia, vomiting, drowsiness, and loss of appetite. Users of kratom have also experienced anorexia, weight loss, insomnia, hepatotoxicity, seizure, and hallucinations.

Kratom capsules

What is its legal status?

Kratom is not controlled under the Controlled Substances Act; however, there may be some state regulations or prohibitions against the possession and use of kratom. FDA has not approved kratom for any medical use. In addition, DEA has listed kratom as a Drug and Chemical of Concern.

WHAT IS SALVIA DIVINORUM?

Salvia divinorum is a perennial herb in the mint family that is used for its hallucinogenic effects.

WHAT IS ITS ORIGIN?

Salvia divinorum is native to certain areas of the Sierra Mazaleca region of Oaxaca, Mexico. It is one of several plants that are used by Mazatec Indians for ritual divination. *Salvia divinorum* plants can be grown successfully outside of this region. They can be grown indoors and outdoors, especially in humid semitropical climates.

What are common street names?

Common street names include:

- Maria Pastora, Sally-D, and Salvia

What does it look like?

The plant has spade-shaped variegated green leaves that look similar to mint. The plants themselves grow to more than three feet high, have large green leaves, hollow square stems, and white flowers with purple calyces.

Leaves of the Salvia divinorum plant

How is it used?

Salvia can be chewed, smoked, or vaporized.

What is its effect on the mind?

Psychic effects include perceptions of bright lights, vivid colors, shapes, and body movement, as well as body or object distortions. *Salvia divinorum* may also cause fear and panic, uncontrollable laughter, a sense of overlapping realities, paranoia, and hallucinations.

People typically experience rapid onset of intense hallucinations that can impair judgment and disrupt sensory and cognitive functions.

Salvinorin A is the principal ingredient responsible for the psychoactive effects of *Salvia divinorum.*

What is its effect on the body?

Adverse physical effects may include:

- Loss of coordination, dizziness, and slurred speech

Which drugs cause similar effects?

When Salvia divinorum is chewed or smoked, the hallucinogenic effects elicited are similar to those induced by scheduled hallucinogenic substances but can have a faster onset and be more intense.

What is its legal status in the United States?

Neither *Salvia divinorum* nor its active constituent Salvinorin A has an approved medical use in the United States. *Salvia divinorum* is not controlled under the Controlled Substances Act. *Salvia divinorum* is, however, controlled by a number of states. Since *Salvia divinorum* is not controlled by the CSA, some online botanical companies and drug promotional sites have advertised Salvia as a legal alternative to other plant hallucinogens like mescaline.

Tianeptine

WHAT IS TIANEPTINE?

Tianeptine is an atypical tricyclic antidepressant that has opioid effects at high doses.

WHAT IS ITS ORIGIN?

Tianeptine has been used in other countries as an antidepressant, however it has been removed from the market in some countries due to its adverse effects. Tianeptine has not been approved by FDA for any medical use.

What are common street names?

Common street names include:

- Tianaa, gas station heroin, Neptune's Fix, ZaZa

What does it look like?

Tianeptine is sold in various forms, including as a powder, liquid, or in pill format.

How is it used?

Tianeptine can be used in similar ways to other opioids, including smoking, injecting, snorting, or by swallowing pills.

Tianeptine
photo credit: U.S. Food and Drug Administration

What are the effects of tianeptine?

Some effects of tianeptine, similar to other commonly used opioid analgesics (e.g., morphine, heroin), may include relaxation, euphoria, pain relief, sedation, confusion, drowsiness, dizziness, nausea, vomiting, urinary retention, pupillary constriction, and respiratory depression. Like other opioids, when stopping use of tianeptine, withdrawal may occur. The most commonly reported adverse effects among tianeptine withdrawal-associated calls consisted of agitation, nausea, vomiting, tachycardia, hypertension, diarrhea, tremor, and diaphoresis. Deaths from tianeptine use have been reported both from using the drug alone or in combination with other drugs, including other opioids like heroin or fentanyl.

Tianeptine
photo credit: U.S. Food and Drug Administration

What is its legal status in the United States?

Tianeptine has not been approved by FDA for any medical use nor are there any commercial uses for tianeptine in the United States. Tianeptine is not controlled under the Controlled Substances Act, however, it has been controlled by a number of states.

IV. Resources

DRUG USE PREVENTION RESOURCES

Drug use prevention programs are designed and implemented on many levels. The federal government has instituted a number of national drug use prevention programs which reach targeted populations through public service announcements, grant programs, educational programs, and the sharing of expertise. State and local governments also have a significant number of prevention programs that are tailored to address particular problems and needs. Law enforcement and the military have brought drug use prevention expertise into classrooms and communities; businesses have also contributed significantly to drug use prevention through sponsored programs, drug-free policies, and corporate support for community initiatives. Other segments of society, including faith-based institutions, civic organizations, and private foundations are also active forces in drug use prevention.

On the next page is a partial list of drug use prevention agencies and programs. There are many other outstanding efforts that are ongoing across the nation; it is impossible to include them all. Some programs are aimed at particular populations or specific drugs. Within a given agency, there may be many prevention programs that are aimed at different audiences.

FEDERAL DRUG USE PREVENTION AGENCIES AND PROGRAMS:

Centers for Disease Control and Prevention:

CDC's National Center for Injury Prevention and Control helps protect America's health by tracking injuries and deaths to look for dangerous trends, researching the best ways to prevent injuries and violence, developing prevention strategies, evaluating effectiveness of prevention strategies, and supporting states in implementing programs.
www.cdc.gov/injury

Drug Enforcement Administration:

In addition to dismantling major drug trafficking organizations, DEA is committed to reducing the demand for drugs in America. DEA's community outreach and prevention support is carried out by employees across the United States who work in communities to share expertise and information on drug trends, emerging problems, the dangers of drugs, and available resources.
www.dea.gov
www.deatakeback.com
www.JustThinkTwice.com
www.GetSmartAboutDrugs.com
www.CampusDrugPrevention.gov
www.OperationPrevention.com

High Intensity Drug Trafficking Areas

High Intensity Drug Trafficking Areas program, created by Congress with the Anti-Drug Abuse Act of 1988, provides assistance to federal, state, local, and tribal law enforcement agencies operating in areas determined to be critical drug-trafficking regions of the United States. This grant program is administered by the Office of National Drug Control Policy. There are currently 33 HIDTAs, and HIDTA-designated counties are located in 50 states, as well as in Puerto Rico, the U.S. Virgin Islands, and the District of Columbia.
www.whitehouse.gov/ondcp

National Guard Counterdrug Program

The National Guard's Counterdrug Program supports military, law enforcement, and community-based counterdrug operations at all levels of government to anticipate, deter, and defeat illicit drug threats to enhance national security and protect our society.
www.nationalguard.mil/leadership/joint-staff/J-3/counterdrug

National Institute on Drug Abuse:

NIDA's mission is to advance science on the causes and consequences of drug use and addiction and to apply that knowledge to improve individual and public health. This includes ensuring the effective translation, implementation, and dissemination of scientific research findings to improve prevention and treatment of substance use disorders and enhance public awareness of addiction as a brain disorder.
www.nida.nih.gov

Office of National Drug Control Policy:

ONDCP works to reduce drug use and its consequences by leading and coordinating the development, implementation, and assessment of U.S. drug policy.
www.whitehousedrugpolicy.gov

Substance Abuse and Mental Health Services Administration:

SAMHSA's mission is to reduce the impact of substance use and misuse and mental illness on America's communities. Its Offices and Centers provide national leadership and assistance for quality behavioral health services while supporting states, territories, tribes, communities, and local organizations through grants and contract awards. SAMHSA's Center for Substance Abuse Prevention works with DEA to improve behavioral health through evidence-based prevention approaches. SAMHSA's Office of Tribal Affairs and Policy works with tribal nations and tribal groups to address behavioral health issues that affect American Indians and Alaska Natives.

www.samhsa.gov

www.samhsa.gov/prevention

U.S. Department of Education:

ED's Office of Safe and Supportive Schools is committed to serving states and school communities by providing resources, direct support, and technical assistance on topics that affect the well-being, health, and safety of the nation's young people.

www.ed.gov

Other Antidrug Organizations:

Community Anti-Drug Coalitions of America
www.cadca.org

National Association of State Alcohol
and Drug Abuse Directors
www.nasadad.org

National Crime Prevention Council
www.ncpc.org

Elks Drug Awareness Program
www.elks.org/dap

Partnership to End Addiction
www.drugfree.org

DEA Educational Foundation
Youth Dance Program
www.deaef.org

Drug Abuse Resistance Education
www.dare.org

Law Enforcement Exploring
www.exploring.org/law-enforcement

America's Poison Centers
www.poisoncenters.org

Students Against Destructive Decisions
www.sadd.org

Young Marines
www.youngmarines.org

National Prevention Network
www.nasadad.org/npn-4

Mentor Foundation USA
www.mentorfoundationusa.org

Drug Free America Foundation
www.dfaf.org

National Family Partnership
www.nfp.org

Lions Club International Foundation
www.lcif.org/en/our-work/youth/index.php

Song for Charlie
www.songforcharlie.org

NASPA-Student Affairs Administrators
in Higher Education
www.naspa.org

National Association of Police
Athletic/Activities League
www.nationalpal.org

Drug Enforcement Administration

Community Outreach and Prevention Support Section

8701 Morrissette Drive
Springfield, VA 22152
202-307-7936

community.outreach@dea.gov

GET SMART
ABOUT DRUGS

A DEA RESOURCE FOR PARENTS, EDUCATORS & CAREGIVERS

WWW.GETSMARTABOUTDRUGS.COM

GET THE FACTS ABOUT DRUGS

JUST THINK TWICE

A Resource for Teens

www.justthinktwice.com

Campus Drug Prevention

www.campusdrugprevention.gov

OPERATION PREVENTION

www.operationprevention.com