



PRINCIPLES OF EFFECTIVE TREATMENT

1.

Addiction is a complex but treatable disease that affects brain function and behavior.

2.

No single treatment is appropriate for everyone.

3.

Treatment needs to be readily available.

4.

Effective treatment attends to multiple needs of the individual, not just his or her drug use or misuse.

5.

Remaining in treatment for an adequate period of time is critical.

6.

Behavioral therapies—including individual, family, or group counseling—are the most commonly used forms of drug use disorder treatment.

7.

Medications are an important element of treatment for many patients, especially when combined with counseling and other behavioral therapies.

8.

An individual’s treatment and services plan must be assessed continually and modified as necessary to ensure that it meets his or her changing needs.

9.

Many drug-addicted individuals also have other mental disorders.

10.

Medically assisted detoxification is only the first stage of addiction treatment and by itself does little to change long-term drug use and misuse.

11.

Treatment does not need to be voluntary to be effective.

12.

Drug use during treatment must be monitored continuously, as lapses during treatment do occur.

13.

Treatment programs should test patients for the presence of HIV/AIDS, Hepatitis B and C, tuberculosis, and other infectious diseases, provide risk-reduction counseling, and link patients to treatment if necessary.

The Drug Enforcement Administration (DEA) schedule indicates the drug’s acceptable medical use and its potential for abuse or dependence.

The most up-to-date scheduling information can be found on the DEA website.

		COCAINE	HEROIN	INHALANTS	LSD	MARIJUANA (CANNABIS)	MDMA (ECSTASY/MOLLY)
	DESCRIPTION	<i>A powerfully addictive stimulant drug made from the leaves of the coca plant native to South America.</i> <i>For more information, see the Cocaine Research Report.</i>	<i>An opioid drug made from morphine, a natural substance extracted from the seed pod of the various opium poppy plant.</i> <i>For more information, see the Heroin Research Report.</i>	<i>Solvents, aerosols, and gases found in household products such as spray paints, markers, glues, and cleaning fluids; also nitrites (e.g., amyl nitrite), which are prescription medications for chest pain.</i> <i>For more information, see the Inhalants Research Report.</i>	<i>A hallucinogen manufactured from lysergic acid, which is found in ergot, a fungus that grows on rye and other grains. LSD is an abbreviation of the scientific name lysergic acid diethylamide.</i> <i>For more information, see the Hallucinogens and Dissociative Drugs Research Report.</i>	<i>Marijuana is made from the hemp plant, Cannabis sativa. The main psychoactive (mind-altering) chemical in marijuana is delta-9-tetrahydrocannabinol, or THC.</i> <i>For more information, see the Marijuana Research Report.</i>	<i>A synthetic, psychoactive drug that has similarities to both the stimulant amphetamine and the hallucinogen mescaline. MDMA is an abbreviation of the scientific name 3,4-methylenedioxymethamphetamine.</i> <i>For more information, see the MDMA (Ecstasy) Abuse Research Report.</i>
	STREET NAMES	Blow, Bump, C, Candy, Charlie, Coke, Crack, Flake, Rock, Snow, Toot	Brown sugar, China White, Dope, H, Horse, Junk, Skag, Skunk, Smack, White Horse With OTC cold medicine and antihistamine: <i>Cheese</i>	Poppers, snappers, whippets, laughing gas	Acid, Blotter, Blue Heaven, Cubes, Microdot, Yellow Sunshine	Blunt, Bud, Dope, Ganja, Grass, Green, Herb, Joint, Mary Jane, Pot, Reefer, Sinsemilla, Skunk, Smoke, Trees, Weed Hashish: <i>Boom, Gangster, Hash, Hemp</i>	Adam, Clarity, Eve, Lover’s Speed, Peace, Uppers
	COMMERCIAL NAMES	Cocaine hydrochloride topical solution (anesthetic rarely used in medical procedures)	No commercial uses	Various	No commercial uses	Various brand names in states where the sale of marijuana is legal	No commercial uses
	COMMON FORMS	White powder, whitish rock crystal	White or brownish powder, or black sticky substance known as “black tar heroin”	Paint thinners or removers, degreasers, dry-cleaning fluids, gasoline, lighter fluids, correction fluids, permanent markers, electronics cleaners and freeze sprays, glue, spray paint, hair or deodorant sprays, fabric protector sprays, aerosol computer cleaning products, vegetable oil sprays, butane lighters, propane tanks, whipped cream aerosol containers, refrigerant gases, ether, chloroform, halothane, nitrous oxide	Tablet; capsule; clear liquid; small, decorated squares of absorbent paper that liquid has been added to	Greenish-gray mixture of dried, shredded leaves, stems, seeds, and/or flowers; resin (hashish) or sticky, black liquid (hash oil)	Colorful tablets with imprinted logos, capsules, powder, liquid
	COMMON WAYS TAKEN	Snorted, smoked, injected	Injected, smoked, snorted	Inhaled through the nose or mouth	Swallowed, absorbed through mouth tissues (paper squares)	Smoked, eaten (mixed in food or brewed as tea)	Swallowed, snorted
	DEA SCHEDULE	II	I	Not scheduled	I	I	I
POSSIBLE HEALTH EFFECTS	SHORT-TERM	Narrowed blood vessels; enlarged pupils; increased body temperature, heart rate, and blood pressure; headache; abdominal pain and nausea; euphoria; increased energy, alertness; insomnia, restlessness; anxiety; erratic and violent behavior, panic attacks, paranoia, psychosis; heart rhythm problems, heart attack; stroke, seizure, coma.	Euphoria; dry mouth; itching; nausea; vomiting; analgesia; slowed breathing and heart rate.	Confusion; nausea; slurred speech; lack of coordination; euphoria; dizziness; drowsiness; disinhibition, lightheadedness, hallucinations/delusions; headaches; sudden sniffing death due to heart failure (from butane, propane, and other chemicals in aerosols); death from asphyxiation, suffocation, convulsions or seizures, coma, or choking. <i>Nitrites: enlarged blood vessels, enhanced sexual pleasure, increased heart rate, brief sensation of heat and excitement, dizziness, headache.</i>	Rapid emotional swings; distortion of a person’s ability to recognize reality, think rationally, or communicate with others; raised blood pressure, heart rate, body temperature; dizziness; loss of appetite; tremors; enlarged pupils.	Enhanced sensory perception and euphoria followed by drowsiness/relaxation; slowed reaction time; problems with balance and coordination; increased heart rate and appetite; problems with learning and memory; anxiety.	Lowered inhibition; enhanced sensory perception; increased heart rate and blood pressure; muscle tension; nausea; faintness; chills or sweating; sharp rise in body temperature leading to kidney failure or death.
	LONG-TERM	Loss of sense of smell, nosebleeds, nasal damage and trouble swallowing from snorting; infection and death of bowel tissue from decreased blood flow; poor nutrition and weight loss; lung damage from smoking.	Collapsed veins; abscesses (swollen tissue with pus); infection of the lining and valves in the heart; constipation and stomach cramps; liver or kidney disease.	Liver and kidney damage; bone marrow damage; limb spasms due to nerve damage; brain damage from lack of oxygen that can cause problems with thinking, movement, vision, and hearing. <i>Nitrites: increased risk of pneumonia.</i>	Frightening flashbacks (called Hallucinogen Persisting Perception Disorder [HPPD]); ongoing visual disturbances, disorganized thinking, paranoia, and mood swings.	Mental health problems, chronic cough, frequent respiratory infections. In rare cases, risk of recurrent episodes of severe nausea and vomiting.	Long-lasting confusion, depression, problems with attention, memory, and sleep; increased anxiety, impulsiveness less interest in sex.
	OTHER HEALTH-RELATED ISSUES	Pregnancy: <i>premature delivery, low birth weight, deficits in self-regulation and attention in school-aged children prenatally exposed.</i> Risk of HIV, hepatitis, and other infectious diseases from shared needles.	Pregnancy: <i>miscarriage, low birth weight, neonatal abstinence syndrome.</i> Risk of HIV, hepatitis, and other infectious diseases from shared needles.	Pregnancy: <i>low birth weight, bone problems, delayed behavioral development due to brain problems, altered metabolism and body composition.</i>	Unknown	Youth: <i>May impair brain development and learning functions.</i> Pregnancy: <i>babies born with problems with attention, memory, and problem solving.</i>	Unknown
	IN COMBINATION WITH ALCOHOL	Greater risk of cardiac toxicity than from either drug alone.	Dangerous slowdown of heart rate and breathing, coma, death.	Unknown	Unknown	Increased heart rate, blood pressure; further slowing of mental processing and reaction time.	MDMA decreases some of alcohol’s effects. Alcohol can increase plasma concentrations of MDMA, which may increase the risk of neurotoxic effects.
	WITHDRAWAL SYMPTOMS	Depression, tiredness, increased appetite, insomnia, vivid unpleasant dreams, slowed movement, restlessness.	Restlessness, muscle and bone pain, insomnia, diarrhea, vomiting, cold flashes with goose bumps (“cold turkey”).	Nausea, tremors, irritability, problems sleeping, and mood changes.	Unknown	Irritability, trouble sleeping, decreased appetite, anxiety.	Fatigue, loss of appetite, depression, aggression, trouble concentrating.
TREATMENT OPTIONS	MEDICATIONS	There are no FDA-approved medications to treat cocaine addiction.	Methadone Buprenorphine Naltrexone (short- and long-acting forms)	There are no FDA-approved medications to treat inhalant addiction.	There are no FDA-approved medications to treat addiction to LSD or other hallucinogens.	There are no FDA-approved medications to treat marijuana addiction.	There is conflicting evidence about whether MDMA is addictive. There are no FDA-approved medications to treat MDMA addiction.
	BEHAVIORAL THERAPIES	<ul style="list-style-type: none">Cognitive-behavioral therapy (CBT)Contingency management, or motivational incentives, including vouchersThe Matrix modelCommunity-based recovery groups, such as 12-step programsMobile medical application: reSET®	<ul style="list-style-type: none">Contingency management, or motivational incentives12-Step facilitation therapy	More research is needed to find out if behavioral therapies can be used to treat inhalant addiction.	More research is needed to find out if behavioral therapies can be used to treat addiction to hallucinogens.	<ul style="list-style-type: none">Cognitive-behavioral therapy (CBT)Contingency management, or motivational incentivesMotivational Enhancement Therapy (MET)Behavioral treatments geared to adolescentsMobile medical application: reSET®	More research is needed to find out if behavioral therapies can be used to treat MDMA addiction.



		METHAMPHETAMINE	PCP	SYNTHETIC CANNABINOIDS	SYNTHETIC CATHINONES (“BATH SALTS”)	TOBACCO	ALCOHOL
DESCRIPTION		<i>An extremely addictive stimulant amphetamine drug.</i> <i>For more information, see the Methamphetamine Research Report.</i>	<i>A dissociative drug developed as an intravenous anesthetic that has been discontinued due to serious adverse effects. Dissociative drugs are hallucinogens that cause the user to feel detached from reality. PCP is an abbreviation of the scientific name, phencyclidine.</i> <i>For more information, see the Hallucinogens and Dissociative Drugs Research Report.</i>	<i>A wide variety of herbal mixtures containing man-made cannabinoid chemicals related to THC in marijuana but often much stronger and more dangerous. Sometimes misleadingly called “synthetic marijuana” and marketed as a “natural,” “safe,” legal alternative to marijuana.</i> <i>For more information, see the Synthetic Cannabinoids DrugFacts.</i>	<i>An emerging family of drugs containing one or more synthetic chemicals related to cathinone, a stimulant found naturally in the khat plant. Examples of such chemicals include mephedrone, methylone, and 3,4-methylenedioxypyrovalerone (MDPV).</i> <i>For more information, see the Synthetic Cathinones (“Bath Salts”) DrugFacts.</i>	<i>Plant grown for its leaves, which are dried and fermented before use.</i> <i>For more information, see the Tobacco/Nicotine Research Report.</i>	<i>Ethyl alcohol, or ethanol, is an intoxicating ingredient found in beer, wine and liquor. It is produced by the fermentation of yeast, sugars, and starches.</i>
STREET NAMES		Crank, Chalk, Crystal, Fire, Glass, Go Fast, Ice, Meth, Speed	Angel Dust, Boat, Hog, Love Boat, Peace Pill	K2, Spice, Black Mamba, Bliss, Bombay Blue, Fake Weed, Fire, Genie, Moon Rocks, Skunk, Smacked, Yucatan, Zohai	Bloom, Cloud Nine, Cosmic Blast, Flakka, Ivory Wave, Lunar Wave, Scarface, Vanilla Sky, White Lightning	None	Booze, Juice, Sauce, Brew
COMMERCIAL NAMES		Desoxyn®	No commercial uses	No commercial uses	No commercial uses for ingested “bath salts”	Multiple brand names	Various
COMMON FORMS		White powder or pill; crystal meth looks like pieces of glass or shiny blue-white “rocks” of different sizes	White or colored powder, tablet, or capsule; clear liquid	Dried, shredded plant material that looks like potpourri and is sometimes sold as “incense”	White or brown crystalline powder sold in small plastic or foil packages labeled “not for human consumption” and sometimes sold as jewelry cleaner; tablet, capsule, liquid	Cigarettes, cigars, bidis, hookahs, smokeless tobacco (snuff, spit tobacco, chew)	Beer, wine, liquor/spirits/malt beverages
COMMON WAYS TAKEN		Swallowed, snorted, smoked, injected	Injected, snorted, swallowed, smoked (powder added to mint, parsley, oregano, or marijuana)	Smoked, swallowed (brewed as tea).	Swallowed, snorted, injected.	Smoked, snorted, chewed, vaporized.	Ingested by drinking
DEA SCHEDULE		II	I, II	I	I (Some formulations have been banned by the DEA)	Not Scheduled	Not scheduled; illegal for purchase or use by those under age 21
POSSIBLE HEALTH EFFECTS	SHORT-TERM	Increased wakefulness and physical activity; decreased appetite; increased breathing, heart rate, blood pressure, temperature; irregular heartbeat.	Delusions, hallucinations, paranoia, problems thinking, a sense of distance from one’s environment, anxiety. <i>Low doses: slight increase in breathing rate; increased blood pressure and heart rate; shallow breathing; face redness and sweating; numbness of the hands or feet; problems with movement.</i> <i>High doses: nausea; vomiting; flicking up and down of the eyes; drooling; loss of balance; dizziness; violence; seizures, coma, and death.</i>	Increased heart rate; vomiting; agitation; confusion; hallucinations, anxiety, paranoia; increased blood pressure.	Increased heart rate and blood pressure; euphoria; increased sociability and sex drive; paranoia, agitation, and hallucinations; violent behavior; sweating; nausea, vomiting; insomnia; irritability; dizziness; depression; panic attacks; reduced motor control; cloudy thinking.	Increased blood pressure, breathing, and heart rate.	Injuries and risky behavior, including drunk driving and inappropriate sexual behavior; impaired judgement, coordination, and reflexes; slurred speech, memory problems.
	LONG-TERM	Anxiety, confusion, insomnia, mood problems, violent behavior, paranoia, hallucinations, delusions, weight loss, severe dental problems (“meth mouth”), intense itching leading to skin sores from scratching.	Memory loss, problems with speech and thinking, loss of appetite, anxiety.	Unknown	Death	Greatly increased risk of cancer, especially lung cancer when smoked and oral cancers when chewed; chronic bronchitis; emphysema; heart disease; leukemia; cataracts; pneumonia.	Irregular heartbeat, stroke, high blood pressure; cirrhosis and fibrosis of the liver; mouth, throat, liver, breast cancer.
	OTHER HEALTH-RELATED ISSUES	Pregnancy: <i>premature delivery; separation of the placenta from the uterus; low birth weight; lethargy; heart and brain problems.</i> Risk of HIV, hepatitis, and other infectious diseases from shared needles.	PCP has been linked to self-injury. Risk of HIV, hepatitis, and other infectious diseases from shared needles.	Use of synthetic cannabinoids has led to an increase in emergency room visits in certain areas.	Risk of HIV, hepatitis, and other infectious diseases from shared needles.	Pregnancy: <i>miscarriage, low birth weight, stillbirth, learning and behavior problems.</i>	Pregnancy-related: <i>fetal alcohol spectrum disorders (FASD)</i>
	IN COMBINATION WITH ALCOHOL	Masks the depressant effect of alcohol, increasing risk of alcohol overdose; may increase blood pressure.	Unknown	Unknown	Unknown	Unknown	N/A
	WITHDRAWAL SYMPTOMS	Depression, anxiety, tiredness.	Headaches, increased appetite, sleepiness, depression.	Headaches, anxiety, depression, irritability.	Depression, anxiety.	Irritability, attention and sleep problems, depression, increased appetite.	Trouble sleeping, shakiness, irritability, depression, anxiety, nausea, sweating.
TREATMENT OPTIONS	MEDICATIONS	There are no FDA-approved medications to treat methamphetamine addiction.	There are no FDA-approved medications to treat addiction to PCP or other dissociative drugs.	There are no FDA-approved medications to treat synthetic cannabinoid addiction.	There are no FDA-approved medications to treat addiction to synthetic cathinones.	Bupropion (Zyban®) Varenicline (Chantix®) Nicotine replacement (gum, patch, lozenge)	Naltrexone, acamprosate, disulfiram.
	BEHAVIORAL THERAPIES	<ul style="list-style-type: none">• Cognitive-behavioral therapy (CBT)• Contingency management, or motivational incentives• The Matrix model• 12-Step facilitation therapy• Mobile medical application: reSET®	More research is needed to find out if behavioral therapies can be used to treat addiction to dissociative drugs.	More research is needed to find out if behavioral therapies can be used to treat synthetic cannabinoid addiction.	<ul style="list-style-type: none">• Cognitive-behavioral therapy (CBT)• Contingency management, or motivational incentives• Motivational Enhancement Therapy (MET)• Behavioral treatments geared to teens	<ul style="list-style-type: none">• Cognitive-behavioral therapy (CBT)• Self-help materials• Mail, phone, and Internet quit resources	<ul style="list-style-type: none">• Cognitive-behavioral therapy (CBT)• 12-Step facilitation therapy• Mobile medical application: reSET®

Additional Resources:

- Substance Abuse and Mental Health Services Administration (SAMHSA) Treatment Locator: [http://www.findtreatment.samhsa.gov](http://www.findtreatment.samhsa.gov;); 1-800-662-HELP.
- The “Find a Physician” feature on the American Society of Addiction Medicine (ASAM) website: <http://www.asam.org/for-the-public-treatment>.
- The Patient Referral Program on the American Academy of Addiction Psychiatry website: <http://www.aaap.org/patient-resources>.
- The Child and Adolescent Psychiatrist Finder on the American Academy of Child & Adolescent Psychiatry Web site: http://http://www.aacap.org/aacap/Families_and_Youth/Resources/CAP_Finder.aspx.
- The Surgeon General’s Report on Alcohol, Drugs, and Health: <https://addiction.surgeongeneral.gov/>
- For clinical trials information, go to www.clinicaltrials.gov.

For More Information:

The NIDA website, www.drugabuse.gov, has information on a variety of drugs and related information.

Some publications, including these charts, are available in print, free of charge.

To order print copies, call the DRUGPubs Research Dissemination Center at 1-877-NIH-NIDA or go to drugpubs.drugabuse.gov.