

Drugs

Risks and Side Effects

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Introduction



There are many kinds of drugs, but they can be classified by the type of effects they have on the brain: stimulants, depressants, hallucinogens.



All drugs are associated with tolerance and most are addictive

Stimulant, Depressant, Hallucinogenic drugs

- Most addictive drugs come in two general classes: stimulants and depressants. **Stimulants** stimulate the central nervous system and **depressants** do the opposite, slowing it and all the parts of the body controlled by the central nervous system down.
- **Hallucinogens** are a diverse group of drugs that alter a person's awareness of their surroundings as well as their own thoughts and feelings.

Stimulants

- Stimulants enhance the effects of neurotransmitters norepinephrine (a stress hormone) and dopamine. The increase in dopamine creates euphoria
- Stimulants may make individuals feel great temporarily, they however typically include negative side effects and result in a “crash” when the drug leaves the system, causing symptoms like fatigue, inability to focus, and depression.
- Stimulant overdose deaths are most often caused by sudden heart failure, heart attack, stroke, or hyperthermia – a condition in which the body becomes dangerously overheated.

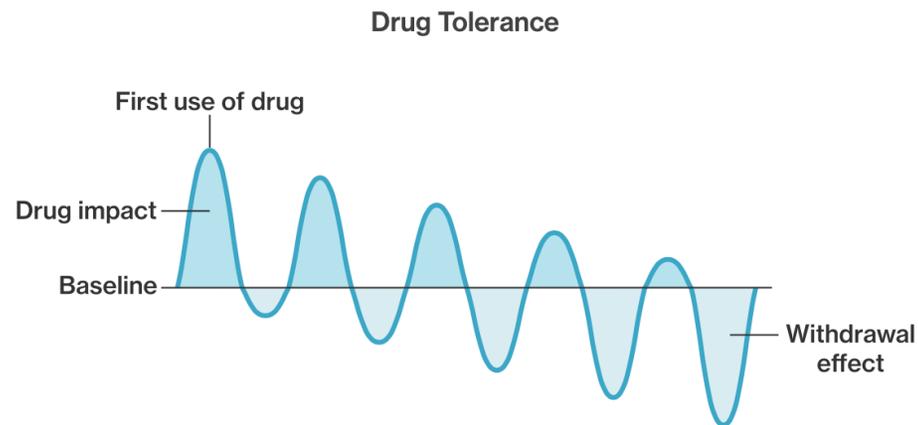
Depressants

- Depressants increase the production of the neurotransmitter GABA, which slows down brain activity, causing a feeling of relaxation.
- Depressants are particularly dangerous when it comes to the potential for overdose, especially since these drugs are often mixed with one another to intensify the euphoric effects.
- Artificially slowing down the central nervous system always comes with risks as it controls the essential functions of the heart and lungs.
- An overdose of depressants can cause someone's breathing to slow to the point that not enough oxygen can reach the brain and other vital organs. This can quickly lead to brain damage, coma, and death.

Hallucinogens

- The effects of hallucinogens can last several hours and vary considerably, depending on the specific type of hallucinogen. Some of the typical effects of hallucinogens are feeling of euphoria and sense of well-being. Sometimes a person may experience the negative effects of hallucinogens and have what is called a bad trip. They may experience unpleasant hallucinations, paranoia, anxiety, panic or fear. Feelings of panic, paranoia and fear can lead to risky behavior that can cause injury, such as running across a busy street.
- Death from an overdose of LSD, or magic mushrooms are extremely rare. However, a high dose of hallucinogen can cause a person to overdose. Not knowing the strength or purity of the hallucinogen increases the risk of overdose. Users also run the risk of accidentally consuming poisonous mushrooms.

Addiction, tolerance, and withdrawal



Initial use of a drug produces a pronounced effect. After repeated use, desired effects are blunted, but withdrawal effects increase.

- **Addiction:** compulsive physiological need for and use of a habit-forming substance. Addiction is characterized by tolerance and symptoms upon withdrawal.
- **Tolerance:** diminished response to a drug, which occurs when the drug is used repeatedly and the body adapts to the continued presence of the drug. It can happen with any drug, even those that are not addictive
- **Withdrawal:** the unpleasant physical and mental effects that result when stopping something that has become a habit.

Common form	Type of drug	Is the substance ...			
		Stimulant?	Hallucinogenic?	Depressant?	Addictive?
Alcohol	Alcohol			yes	yes
Dexemphetamines (Dexedrine, ADHD)	Amphetamine	yes			yes
Dextroamphetamine (Adderal, ADHD)	Amphetamine	yes			yes
Speed	Amphetamine	yes			Yes
Meth	Amphetamine	yes			Yes
Benzodiazepines (prescribed as a tranquilizer)	Benzodiazepines			yes	yes
Marijuana	Cannabis	some	some	yes	yes
Hashish	Cannabis	some	some	yes	yes
Cocaine	Cocaine	yes			yes
LSD	Hallucinogen		yes		no
Psylocybin	Hallucinogen		yes		no
PCP (Phencyclidine)	Hallucinogen		yes		yes
Ecstasy	MDMA (amphetamine compound)	yes	yes		unknown
Methylphenidate (Ritalin, ADHD)	Methylphenidate	yes			yes
Heroin	Opioid			yes	yes
Morphine (prescribed for pain)	Opioid			yes	yes
Opium	Opioid			yes	yes
Tobacco	Tobacco	yes		yes	yes

Facts about common substances

What are Amphetamines?

Amphetamines are often prescribed to treat ADHD.



Methamphetamine (speed) has a similar chemical make-up but it has worse effects on your brain and body. It may be abused by inhaling or smoking, swallowing, snorting through the nose, or by injection. Another common form of the drug is crystal methamphetamine, or “crystal meth”, which is clear, chunky crystals resembling ice. Crystal meth is smoked in a manner similar to crack cocaine. It is a lab made drug. Other chemicals are also mixed in meth, some of which are toxic

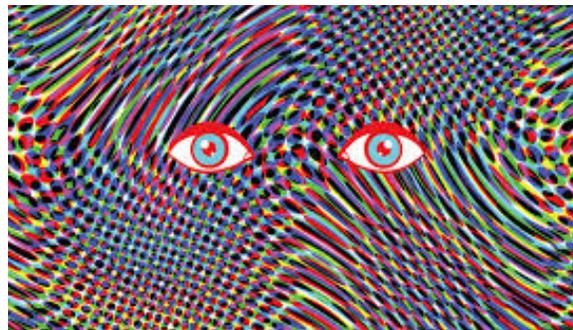


The products of cannabis

- Cannabis is a flowering plants with many uses including recreational drugs.
- Primary psychoactive effects include a state of relaxation. The effect is due to THC (Tetrahydrocannabinol), a psychoactive compound found in the plant.
- Marijuana is the plant material derived from the cannabis plant (dried leaves, flowers, seeds, and stems) while hashish comes from the compressed resin of the flower. Hash oil is produced by solvent extraction of hashish and/or marijuana.
- The concentration of THC is much higher in hashish than it is in marijuana: the average proportion of THC in marijuana in the US is around 5%, whereas the THC in hash ranges from 5-15%. Hash oil typically has even higher levels of THC.



What do hallucinogens look like?



- LSD is one of the most potent, mood-changing chemicals. It is manufactured from lysergic acid, which is found in the ergot fungus that grows on rye and other grains. It is produced in crystal form in illegal laboratories. These crystals are converted to a liquid for distribution. It is odorless, colorless, and has a slightly bitter taste
- PCP (Phencyclidine or phenylcyclohexyl piperidine, also known as angel dust) is sold in a variety of forms including tablets, capsules and colored powders. It has a distinctive bitter chemical taste.
- Psilocybin can be ingested in several ways: by consuming fresh or dried fruit bodies, by preparing a herbal tea, or by combining with other foods to mask the bitter taste. Dried mushrooms can also be crushed into a powder and prepared in capsule form. In its pure powder form, psilocybin can be prepared in capsules, tablets, or solution. Psilocybin can be consumed orally, sniffed, smoked, or injected

What is MDMA?



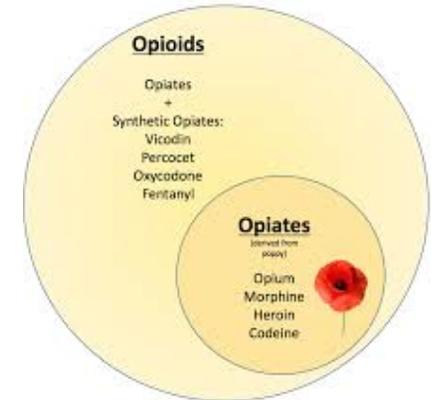
- Ecstasy (also called Molly) comes in pill or powder form. When it's a powder it's called by its chemical name, MDMA, but it's the same drug as ecstasy.
- Ecstasy pills can be white, coloured, round, square or pressed into any shape. They are usually swallowed
- Ecstasy powder looks like white/grey crystals and is called MDMA, mandy or MD. MDMA is usually rubbed (dabbed) into the user's gums. They both taste bitter and unpleasant.

The difference between opioids and opiates

- **Opioids** are a class of drugs that include the illegal drug heroin, synthetic **opioids** such as fentanyl, and pain relievers available legally by prescription, such as oxycodone (OxyContin[®]), hydrocodone (Vicodin[®]), codeine, morphine, and many others.
- **Opiates** are derived from an opium poppy. Opiates include Opium, Morphine, Codeine And Heroin.



Opiates Are a Subset of Opioids



Where is vaping situated in the drugs' world?

- Vaping is the act of inhaling and exhaling the aerosol, often referred to as vapor, which is produced by an e-cigarette or similar device. The e-liquid usually contains a propylene glycol or vegetable glycerin-based liquid with nicotine, flavoring and other chemicals, but not tobacco.
- Most e-cigarettes contain nicotine, a highly addictive substance, even if labeled otherwise. Nicotine is especially harmful to teens and can lead to smoking cigarettes. Flavored e-cigarettes can also make the nicotine more palatable to the oral cavity and increase cravings.
- Some people use these devices to vape THC, the chemical responsible for most of marijuana's mind-altering effects, or even synthetic drugs like flakka (a synthetic drug), instead of nicotine.
- The newest and most popular vaping product is the JUUL. Every JUUL product contains a high dose of nicotine, with one pod or flavor cartridge containing about the same amount of nicotine as a whole pack of cigarettes.
- Since the flavor ban on replaceable cartridges has come into play, JUUL is no longer making the popular candy/fruity flavors. The vaping landscaping is constantly changing in popularity, so disposable e-cigarettes such as Puff Bar are now popular amongst teens as they are cheaper and continue to offer popular flavors.
- A growing body of evidence indicates that vaping products may be dangerous.
- Some e-cigarette flavorings may be safe to eat but not to inhale because the gut can process more substances than the lungs.
- E-cigarette or vaping associated lung injury is strongly linked to vitamin E acetate, which is used as a filler in some vaping products - especially those containing THC.



Secondhand & Thirdhand Smoking

- Secondhand smoke occurs when nonsmokers are exposed to freshly emitted smoke. Secondhand smoke exposure comes with some of the same risks as smoking and can increase the risk for many diseases.
- Thirdhand smoke refers to tobacco residue and stale or aged secondhand smoke, which can persist long after the smoke itself has been cleared from the environment. It can contaminate wall boards, curtains, carpets, cars, etc.
- Even though secondhand smoke exposure lasts for only a few minutes to a few hours, thirdhand smoke can persist for months.
- Vaping can also expose those around you to secondhand smoke. Secondhand aerosols contain harmful substances, including nicotine, heavy metals like lead, volatile organic compounds, and cancer-causing agents.

