Hallucinogens

What Are Hallucinogens?
Hallucinogens are a diverse group of drugs that alter a person’s awareness of their surroundings as well as their thoughts and feelings. They are commonly split into two categories: classic hallucinogens (such as LSD) and dissociative drugs (such as PCP). Both types of hallucinogens can cause hallucinations, or sensations and images that seem real though they are not. Additionally, dissociative drugs can cause users to feel out of control or disconnected from their body and environment. Some hallucinogens are extracted from plants or mushrooms, and others are synthetic (human-made). Historically, people have used hallucinogens for religious or healing rituals. More recently, people report using these drugs for social or recreational purposes.

Types of Hallucinogens

Classic Hallucinogens
- LSD (D-lysergic acid diethylamide) is one of the most powerful mind-altering chemicals. It is a clear or white odorless material made from lysergic acid, which is found in a fungus that grows on rye and other grains.
- Psilocybin (4-phosphoryloxy-N,N-dimethyltryptamine) comes from certain types of mushrooms found in tropical and subtropical regions of South America, Mexico, and the United States.
- Peyote (mescaline) is a small, spineless cactus with mescaline as its main ingredient. Peyote can also be synthetic.
- DMT (N,N-dimethyltryptamine) is a powerful chemical found naturally in some Amazonian plants. People can also make DMT in a lab. Synthetic DMT usually takes the form of a white crystalline powder that is smoked.
- 251-NBOMe is a synthetic hallucinogen with similarities both to LSD and MDMA but that is much more potent.

Dissociative Drugs
- PCP (Phencyclidine) was developed in the 1950s as a general anesthetic for surgery, but is no longer used for this purpose due to serious side effects. PCP can be found in a variety of forms, including tablets or capsules; however, liquid and white crystal powder are the most common.

- Ketamine is used as a surgery anesthetic for humans and animals. Much of the ketamine sold on the streets comes from veterinary offices. It mostly sells as a powder or as pills, but it also available as an injectable liquid. Ketamine is snorted or sometimes added to drinks as a date-rape drug.
- Dextromethorphan (DXM) is a cough suppressant and mucus-clearing ingredient in some over-the-counter cold and cough medicines (syrups, tablets, and gel capsules).
- Salvia (Salvia divinorum) is a plant common to southern Mexico and Central and South America. Salvia is typically ingested by chewing fresh leaves or by drinking their extracted juices. The dried leaves of salvia can also be smoked or vaporized and inhaled.
How Do People Use Hallucinogens?

- Swallowing as tablets or pills - LSD, DXM, ketamine, PCP
- Swallowing as liquid - LSD, peyote, DXM, ketamine
- Consuming raw or dried - peyote, psilocybin, salvia
- Brewing into tea - DMT, peyote, psilocybin, salvia
- Snorting - ketamine, PCP
- Injecting - PCP
- Inhaling, vaporizing, or smoking - DMT, PCP, salvia
- Absorbing through the lining in the mouth using drug-soaked paper pieces - LSD

How Do Hallucinogens Affect the Brain?

Research suggests that classic hallucinogens work at least partially by temporarily disrupting communication between brain chemical systems throughout the brain and spinal cord. Some hallucinogens interfere with the action of the brain chemical serotonin, which regulates:

- Mood
- Sensory perception
- Sleep
- Hunger
- Body temperature
- Sexual behavior

Dissociative hallucinogenic drugs interfere with the action of the brain chemical glutamate, which regulates:

- Pain perception
- Responses to the environment
- Emotion
- Learning and memory

Short-Term Effects

Classic hallucinogens can cause users to see images, hear sounds, and feel sensations that seem real but do not exist. The effects generally begin within 20 to 90 minutes and can last as long as 12 hours in some cases (LSD) or as short as 15 minutes in others (synthetic DMT). Hallucinogen users refer to the experiences brought on by these drugs as "trips." If the experience is unpleasant, users sometimes call it a "bad trip." Dissociative drug effects can appear within a few minutes and can last several hours in some cases; some users report experiencing drug effects for days.

Long-Term Effects

Two long-term effects have been associated with use of classic hallucinogens, although these effects are rare. One is Persistent Psychosis, a series of continuing mental problems, including visual disturbances, disorganized thinking, paranoia, and mood changes. The other is Hallucinogen Persisting Perception Disorder (HPDD) which involves recurrences of certain drug experiences, such as hallucinations or other visual disturbances. More research is needed on the long-term effects of dissociative drugs. Researchers do know that repeated use of PCP can result in addiction.