

- Hallucinogens affect perception and behaviour. Taking them may cause people to become disoriented, have poor judgment and take risks.
- Many hallucinogens can have very unpleasant or toxic effects (e.g., jimsonweed, deadly nightshade). Hallucinogenic plants can be mistaken for other toxic or lethal plants, for example, mushrooms.
- Although research is scarce, taking hallucinogens during pregnancy may affect the development of the baby, and increase the chance of miscarriage.

### Are hallucinogens addictive?

Most people who use hallucinogens do so occasionally. Repeated use of hallucinogens such as LSD or ecstasy leads to *tolerance*, where the drug has reduced or no effect. Sensitivity to the drug returns if the person stops using it for a period of time, and then starts again. Stopping use of hallucinogens does not usually cause symptoms of withdrawal. However, people can develop *psychological dependence*, in which they feel they need the drug.

### What are the long-term effects of taking hallucinogens?

Hallucinogen use may, on rare occasions, result in “flashbacks,” or replays of the drug experience, days, weeks or even years after the drug was taken. Some people who take hallucinogens feel depressed or anxious long after they took the drug.

### One in a series...

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## Do You Know...

**Types of hallucinogens:** LSD, mescaline, psilocybin, PCP, cannabis, ecstasy, salvia and others

See also other brochures in the *Do You Know* series: *LSD*, *Ecstasy*, *Cannabis* and *Ketamine*.

### What are hallucinogens?

The term hallucinogen refers to many different drugs, which are often called “psychedelic” drugs. While the effects of these drugs vary widely, all change the way people see, hear, taste, smell or feel, and affect mood and thought. At high doses, all may cause a person to hallucinate, or see, hear or feel things that aren't really there.



Most of the hallucinogens used in North America belong to one of these six categories:

- *indolealkylamines*, which includes LSD (d-lysergic acid diethylamide, a semi-synthetic substance originally derived from “ergot,” a fungus that grows on rye and other grains), LSA (d-lysergic amide, from morning glory seeds), psilocybin and psilocin (from *Psilocybe* mushrooms) and DMT (dimethyltryptamine, from the bark of the *Virola* tree, and other sources)
- *phenylethylamines*, which includes mescaline (found in peyote cactus), and “designer drugs” such as:
  - MDA (methylenedioxyamphetamine)
  - MDMA (ecstasy, 3,4-methylenedioxymethamphetamine)
  - PMA (paramethoxyamphetamine)
  - 2-CB (4-bromo-2,5-dimethoxyphenethylamine)
  - STP (2,5-dimethoxy-4-methylamphetamine)
  - TMA (trimethoxyamphetamine).
- *arylcycloalkylamines*, such as PCP (phencyclidine) and ketamine
- *cannabinoids*, especially THC (tetrahydrocannabinol), found in marijuana, hash and hash oil
- *anticholinergics*, from the plant family Solanaceae, which includes deadly nightshade (*Atropa belladonna*) and jimsonweed (*Datura stramonium*)
- the diterpene, *salvinorin-A*, from the plant *Salvia divinorum*.

### Where do hallucinogens come from?

Some hallucinogens come from mushrooms (psilocybin), cacti (mescaline) and other plants (cannabis, salvia). Of these, cannabis and psilocybin are almost always used in their natural form. Although LSD is used only in a synthesized form, a related drug, LSA, is found in nature. Other hallucinogens, such as MDMA and ketamine, are created in laboratories.

# Hallucinogens

### Who uses hallucinogens?

Hallucinogens have been used since ancient times, in religion, medicine, magic and prophecy. In the 1960s and 70s, hallucinogen use became a symbol of the counter-culture among young people in North America and Europe. In the 1990s, hallucinogen use was linked to the “rave” scene.

A 2007 survey of Ontario students in grades 7 to 12 reported that:

- 3.5 per cent had used ecstasy at least once in the past year
- 1.6 per cent had used LSD at least once in the past year
- 0.7 per cent had used PCP at least once in the past year
- 5.5 per cent had used other hallucinogens (such as psilocybin and mescaline) at least once in the past year.

A 2004 survey of Canadians (aged 15+) reported that:

- 4.1 per cent had used ecstasy and 11.4 per cent had used LSD, PCP or other hallucinogens at least once in their lifetime
- 1.1 per cent had used ecstasy and 0.7 per cent had used LSD, PCP or other hallucinogens at least once in the past year.

### How do hallucinogens make you feel?

How hallucinogens make you feel depends on:

- how much you use
- how often and how long you use
- your mood, expectation and environment
- your age
- whether you have certain pre-existing medical or psychiatric conditions
- whether you’ve taken any alcohol or other drugs (illicit, prescription, over-the-counter or herbal).

Hallucinogens cause mostly *psychoactive*, or mind-altering, effects, which can be mild to intense. These effects vary from drug to drug, from person to person, from one drug-taking episode to the next, and can even change dramatically within one time of use. Effects can range from ecstasy to terror, from mild distortion of the senses to full hallucinations (where people believe that drug-induced visions or other perceptions are real).

Different types of hallucinogens produce different effects; for example:

**LSD** produces a kaleidoscope of visual patterns and changes perception. People who take LSD usually know that the hallucinations are not real; however, the effects can appear real.

**Ecstasy** enhances mood and produces feelings of empathy and intimacy.

**Ketamine** causes an out-of-body feeling, which may be pleasant or terrifying.

**Salvia** causes intense, short-lived hallucinogenic effects, such as smelling sounds or hearing colours.

### How long does the feeling last?

The effects of some hallucinogens, such as LSD, last for hours, while others, such as salvia, last only a short time.

### Are hallucinogens dangerous?

Taking hallucinogens can be dangerous for several reasons:

- Most of these drugs are illegal and unregulated, and may include toxins, or not even contain the drug they are sold as. For example, drugs sold as ecstasy are usually not pure MDMA, and have been found to contain other drugs, such as methamphetamine (see *Do You Know...Methamphetamine*). Drugs sold as mescaline are almost always something else.