Lysergic Acid Diethylamide

Lysergic acid diethylamide, most commonly known today as LSD, is a psychedelic drug with profound effects. It was the drug of choice during the counterculture movement of the 1960’s. Today its use has declined due to its illegality in most countries, yet it continues to be one of the most commonly used psychedelic substances around the world.

LSD was first synthesized by the Swiss chemist Albert Hofmann on November 16, 1938. At the time, Hofmann worked for the pharmaceutical company known as Sandoz Laboratories. Hofmann was working on a research project whose goal was to isolate compounds from a fungus, ergot (found in rye), to use in the production of pharmaceuticals. At this time, lysergic acid had already been isolated at the Rockefeller Institute in New York. Using this to his advantage, Hofmann derived various compounds using lysergic acid, some of which were developed into medicines. The 25th derivative that Hofmann synthesized was lysergic acid diethylamide, which he called LSD-25. When he first synthesized LSD-25, Hofmann hypothesized that it could potentially be used as a stimulant for the central nervous system. However, upon testing no medicinal properties were found. It wasn’t until five years later that Hofmann discovered the psychedelic properties of LSD.

Five years after his first synthesis of LSD, Hofmann decided to resynthesize it to perform more tests. On April 16, 1943, while synthesizing LSD yet again, Hofmann accidentally ingested some of the drug that was on his fingertips. He described the subsequent effects as being:

“…affected by a remarkable restlessness, combined with a slight dizziness. At home I lay down and sank into a not unpleasant intoxicated-like condition, characterized by an extremely stimulated imagination. In a dreamlike state, with eyes closed (I found the daylight to be unpleasantly glaring), I perceived an uninterrupted stream of fantastic pictures, extraordinary shapes with intense, kaleidoscopic play of colors. Some two hours this condition faded away.” (Hofmann 15)
After this accidental exposure, Hofmann decided to intentionally dose himself with LSD to further his research of the drug’s potential.

Three days later on April 19, 1943, Hofmann ingested 250 micrograms of LSD (10 times more than what is considered a normal dose today). Soon after, Hofmann started to become delirious as his perceptions of reality began to change. He asked his laboratory assistant to bring him home. Keep in mind; this was during the World War II era, so cars were unavailable. Therefore, Hoffman had to use a bicycle to go home. As he pedaled home, anxiety and panic struck Hofmann. He urged a doctor to check on him upon his arrival at home. The doctor found nothing wrong with Hofmann except for the fact that his pupils were dilated. After a while, Hofmann’s anxiety and panic gradually turned into euphoria. After having this experience, Hofmann told his coworkers about the drug and when they experimented with it too, they experienced similar effects. Amongst the LSD community today, April 19 is known as Bicycle Day to commemorate Hofmann’s journey home on his bicycle while under the powerful effects of LSD.

![LSD blotting paper](image)

Today, LSD is most commonly found in the form of sheets of blotting paper. To prepare pure LSD for use, pure LSD, which is crystalline, is dissolved in a mixture of water and ethanol. Blotting paper is then dissolved into the LSD solution. The blotting paper is then allowed to dry. Typically, the blotting paper is printed with colorful graphics. Each dose on the blotting paper is a small square which is about a quarter of an inch wide, separated by perforated edges in order to easily tear off a piece for a single use. A single blotting paper can contain up to 900 doses. To consume the drug, the blotting paper is chewed and swallowed. Other forms of LSD include tablet form and windowpane form: a pill and a thin gelatin square, respectively.
The effects of LSD are described to be profound, striking down barriers and altering one’s perceptions. The effects of LSD typically start within an hour after ingestion and can last up to 12 hours. Physical effects of LSD include dilated pupils, increased blood pressure and increased body temperature. Some users may also experience dizziness, blurred vision, and tingling sensations in their hands and feet. The most profound effects are the ones that affect the user’s senses, notably visual. Visual effects of LSD include colors becoming much brighter as if they were glowing and immobile objects appearing to be in motion. There will also be the appearance of colorful patterns in one’s vision, similar to a kaleidoscope. Sometimes, users also report experiencing synesthesia, where one’s senses are mixed together. A user might be able to see music, smell sounds, or taste colors. Additional effects of LSD include having a sense of euphoria and happiness. Some users also report experiencing life-changing spiritual experiences, considered to be a positive, “good trip”. However, it is also possible for users to experience adverse effects, otherwise known as a “bad trip.”

In order to prevent a “bad trip” it is important to keep in mind the set and setting. The set refers to the expectations of the effects by the drug user as well as the drug user’s state of mind. The setting refers to the environment in which the LSD user is in. For example, if a LSD user is in a bad mood or is stressed out, they may experience a “bad trip.” In addition, the environment also helps in preventing a “bad trip.” LSD is advised to be taken in a quiet setting where the user is at peace. The effects of a “bad trip” are described as being very frightening where users are trapped in a state of horror and panic. Unlucky users suffer through hours of paranoia, sensations of dying, fear, and anxiety. They may also experience frightening visual hallucinations, such as monsters, spiders, or blood. Hopelessly lost under the influence of LSD, it may seem like the “bad trip” will never end.

Aside from the risk of suffering a “bad trip,” there are also some potentially long term effects of taking LSD. One of which that some users experience is referred to as flashbacks. Flashbacks occur when users report reliving experiences they had while under an LSD trip again sometime in the future. This sense of déjà vu may happen anytime, ranging from a few days to several years after a trip. The flashbacks occur suddenly, as a result of both good and bad trips. These so-called flashbacks may cause mental and emotional distress, and if severe enough, may lead to depression.

One of the people that popularized the recreational use of LSD is Dr. Timothy Leary, a psychology professor at Harvard University. After experiencing the effects of LSD, Leary along with another professor at Harvard, Richard Alpert, founded a study to test the effects of psychedelic drugs during the 1960’s. Leary firmly believed that LSD could treat mental illnesses. However in 1963, Leary was dismissed from Harvard due to the nature of his experiments. After leaving Harvard, Leary started to travel the country to advocate the use of LSD. In 1967, in front of a crowd of 30,000 hippies in San Francisco, Leary spoke the phrase “turn on, tune in, drop out”, exemplifying the LSD movement. Leary reveals in his biography, that the statement “turn on” was meant to go within to activate your neural and genetic equipment, “tune in” is meant to interact harmoniously with the world around you and lastly, “drop out” represented self-reliance.
Unlike other drugs like heroin, or cocaine, LSD is not addictive. Users do not become dependent on LSD. If a user stops taking LSD, there are no withdrawal symptoms like when one stops taking heroin or cocaine. Even though one does not develop a dependency on LSD, one may develop a tolerance for the drug. This means that the more one uses the drug, they will need to take larger doses to experience the same effects.

In the United States, LSD is classified as a Schedule I substance according to the Controlled Substances Act of 1970. Other drugs in Schedule I include DMT, heroin, marijuana, MDMA, and mescaline. The fact that LSD is classified as a Schedule I substance means that the drug has a high potential for abuse, it has no currently accepted medical use, and there is a lack of accepted safe use under medical supervision. If one is caught with possession of LSD, the federal penalty is a maximum of one year in prison or a minimum fine of $1000. If one is caught selling or buying LSD, the penalty depends on the amount of LSD. If one is caught selling or buying up to 10 grams of LSD, the penalty is 5-40 years in jail with a potential fine of up to $2 million.

According to the National Survey on Drug Use and Health, more than 200,000 people try LSD for the first time every year in the United States. In the United States, only 9.7% of the population above the age of 12 has tried LSD at least once in their lifetime. A typical LSD user is profiled as a white male between the ages of 18 and 22. They usually first try the drug between the ages of 15 and 19. They typically live in the Western United States, come from an affluent family with educated parents. Additionally, LSD users typically do not use the drug regularly.

Ever since its synthesis in 1938 and subsequent popularization as a recreational drug in the 1960s, many people all around the world have used LSD. It is illegal in most countries, yet it is still used by many throughout the globe due to its profound effects on the body and mind.
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