

Lysergic Acid Diethylamide (LSD)

Dr. Joseph E. Graas, Scientific Director
Dr. Edward Moore, Medical Director

The compound Lysergic Acid Diethylamide (LSD) was first synthesized in 1938 by Albert Hofmann. He was a chemist working for the Sandoz company in Basel, Switzerland. Albert and his research partner were tasked to find medicinal components in natural products that had a reported functional use. They were studying the medicinal plant, squill, in an attempt to isolate and identify the active components, and then to apply the purified components to a human model to duplicate the medicinal response. Many drug discoveries that result in pharmaceutical medications are discovered by using this methodology. The squill plant has a long history of use as an expectorant, for the herbal treatment of cardiac effects, and in the treatment of breathing problems. The net result of the work done on the squill plant was the elucidation of the molecule LSD. The biological effect of the drug was recorded by Albert Hofmann after a self-administered dose of 0.25 mg in an attempt to find the therapeutic dose. As it turns out, the actual dose should have been 0.02 mg. The elevated dose taken resulted in the recording of the psychedelic effects of the drug in what the drug community referred to as the "First LSD Trip" or "Bicycle Day". The curious reader can look up the meaning of "Bicycle Day" used by the drug community.

The 50's and the 60's were experimental years for psychedelic drugs. There were many well-known people who openly advocated the positive effects of using LSD. Aldous Huxley (a popular author of many best sellers), Harold A. Abramson (a psychiatrist), and Timothy Leary were just a few that openly advocated the use of LSD. Other drugs were also experimented with and promoted, such as mescaline from the peyote cactus and psilocybin from mushrooms. These, along with LSD, were used for their hallucinogenic and psychedelic effects for their mind expanding and religious experiences.

In the late 1950's, a study was conducted on alcoholics that failed to quit drinking while enrolled in Alcoholics Anonymous. These people were given LSD by Dr. Humphry Osmond and 50% of the group were still drink free one year later. This was heralded as a success rate that has not been duplicated by any other means. Since then, studies and experiments have been conducted by the academic community, government funded groups, and psychiatric groups. The observations of these studies indicated that the patients, as well as the conductor of the LSD sessions, were equally involved with using the drug. The experiences from these studies and sessions were spread throughout the community, resulting in increased usage and in-

dividual experimentation. The backlash from the general public regarding the availability of the drug and its dissemination into the general population led Sandoz to cease production in 1965. Shortly after, the Drug Enforcement Agency scheduled the drug LSD in the lowest category which is defined as "high potential for abuse" and is without any "currently accepted medical use in treatment".

The literature does not support the danger and life-threatening nature of LSD, and further deaths ascribed to LSD really do not exist. A fair assessment by NIDA is "Currently LSD is not considered an addictive drug because it doesn't cause uncontrollable drug-seeking behavior. However, LSD does produce tolerance, so some users who take the drug repeatedly must take higher doses to achieve the same effect. This is an extremely dangerous practice, given the unpredictability of the drug". Controlled studies are still on-going under scientifically strict procedures to amplify the beneficial use of LSD in the treatment of psychiatric disorders and addictions.

References:

Albert Hofmann; translated from the original German (LSD Ganz Persönlich) by J. Ott. MAPS-Volume 6, Number 69, Summer 1969

McMillan, Trisha (30 March 2013). "Bicycle Day". Catalyst Magazine

Maclean, J.R.; Macdonald, D.C.; Ogden, F.; Wilby, E., "LSD-25 and mescaline as therapeutic adjuvants." In: Abramson, H., Ed., *The Use of LSD in Psychotherapy and Alcoholism*, Bobbs-Merrill: New York, 1967, pp. 407-426; Ditman, K.S.; Bailey, J.J., "Evaluating LSD as a psychotherapeutic agent," pp.74-80; Hoffer, A., "A program for the treatment of alcoholism: LSD, malvaria, and nicotinic acid," pp. 353-402.

Hallucinogen Drug Facts, National Institute on Drug Abuse