Salvia divinorum

The psychoactive herb *Salvia divinorum* (pronounced SAL-vee-ah dee-vin-OR-um), or simply *Salvia*, is a sage-like perennial of the Labiatae, or mint family. Street names include *Holly Smoke, Maria Pastora, Sage of the Seers, Diviners Sage, Sally-D, Magic Mint, Shepherdess’ Herb*, and a popular brand name *Purple Sticky™*. *Salvia divinorum* is one of more than 1,000 species of Salvia found in the world. Internet sites, as well as “head shops” and smoke shops, market this “herbal high” and typically sell seeds, plant cuttings, whole plants, fresh or dried leaves, and extract-enhanced leaves of various strengths (e.g. 5x, 10x, 20x, 30x). A *USA Today* news article reports price ranges from $10 to $120 an ounce depending on potency (June 2003). Many species of *Salvia* are available at nurseries and garden shops, but to date none have been shown to contain the same psychoactive properties of *Salvia divinorum*.

*Salvia divinorum* can grow to over three feet in height and has large green leaves, hollow square stems, and white and purple flowers. It is commonly found in southern Mexico, and Central and South America. It has also been grown domestically in Hawaii and California. The Mazatec Indians of Mexico have used this plant for its hallucinogenic effects during ritual divination and healing ceremonies. *Salvia* is sometimes ingested by chewing fresh leaves, drinking the extracted juices, or brewing it as a tea. The leaves can also be dried, crushed and then smoked, inhaled through a water pipe, or vaporized and inhaled.

The main active ingredient in *Salvia divinorum* is salvinorin-A, a powerful psychoactive chemical found mostly in its leaves. *The Journal of Pharmacological and Experimental Therapeutics* (2004) reports that salvinorin-A is a potent activator of kappa opioid receptors in the brain, a different group of receptors from those that are activated by the more commonly known opioids, such as heroin and morphine.

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People who use Salvia generally experience vivid hallucinations or delusional episodes. These effects are intense, appear within the first few minutes of use and can last up to an hour or more. Physiological effects include: changes in visual perception, mood, and body sensations; emotional swings; feelings of detachment; modified perception of external reality and the self; and decreased ability to interact with one's surroundings. The duration and intensity of effects depends mostly on the method of consumption and the amount consumed; the effects can also depend on the user's personality, mood, and expectations.

Additional Salvia divinorum effects include:

- slurred speech
- short-term memory loss
- elevated body temperature and blood pressure
- disconcerting and frightening non-verbal reactions
- enhanced perceptions of bright lights and vivid colors
- body distortions and feelings of merging with inanimate objects
- sensory confusion such as “hearing” colors and “smelling” sounds
- lack of coordination
- dizziness
- uncontrolled laughter
- unconsciousness
- acute anxiety reaction

Many people report having had negative effects during their first experience with Salvia and say they would not use it a second time. The long-term effects of Salvia use are unknown, as medical studies undertaken to examine the drug's physiological effects have focused only on short-term effects. However, information provided by Salvia users indicates that the negative long-term effects of Salvia may include depression and schizophrenia. Some users also indicate that long-term use can cause a persistent perception disorder, sometimes referred to as "flashbacks."

The fact that so little is known about the overall effects of Salvia could pose a danger to users. Users may risk overdosing if they consume too much or if the potency is too great. Furthermore, the medical community has minimal knowledge about this drug, which could result in a lack of proper treatment for an individual who has overdosed. Although at this time Salvia is not believed to be addictive, there is concern that it could be; some habit-forming drugs including tobacco, heroin, cocaine and benzodiazepines also were initially thought not to be addicting.
Prevalence of Use

Adolescents and young adults in the United States and Europe began using Salvia for its psychoactive affects around 2000. Results from the 2006 National Survey on Drug Use and Health indicate “about 1.8 million persons aged 12 or older used Salvia in their lifetime, and approximately 750,000 did so in the past year.” Young adults aged 18 to 25 were more likely than any other age group to have used Salvia in the past year. Furthermore, males aged 12 to 25 were about 3 to 4 times more likely than females to have used Salvia (SAMHSA, 2007). Among college student populations, those most at risk for use were white, male, and fraternity members engaging in heavy episodic alcohol use (Drug and Alcohol Dependence, 2007). Salvia seems to appeal to individual experimentalists rather than for use as a “party drug.”

Legal Status

Although Salvia and its psychoactive ingredients are not currently regulated under the U.S. Controlled Substances Act of 2005, several states regulate its use. A new Kansas law regarding Salvia went into effect on May 1, 2008. This law classifies Salvia divinorum as a Schedule I drug and criminalizes the possession, use or sale of any parts of the plant, its seeds, or extracts (K.S.A. 65-4105). Drugs classified as Schedule I are those deemed to have a high potential for abuse, no currently accepted medical use in treatment in the United States, and a lack of accepted safety for use of the substance under medical supervision.

Kansas joins at least nine other states that restrict the use of Salvia. About 20 states are presently considering banning or otherwise limiting the availability of Salvia. Australia, Denmark, Belgium, Italy, Finland and South Korea are among the many other countries to have added Salvia to their list of controlled substances. The Drug Enforcement Agency has listed Salvia divinorum as a “drug of concern” and is considering its classification as a Schedule I drug, as is LSD (lysergic acid diethylamide) or heroin.

Other Information

- Salvia’s chemical structure is unique and has no known analog among other drugs of abuse.
- Salvia is the only nonalkaloidal hallucinogen.
- Salvia’s pharmacological mechanism of action has yet to be fully understood.
- The Internet has been the most widely used venue for obtaining Salvia. Evidence suggests that roughly 10 percent of drug abusers currently in treatment obtained their drugs over the Internet, and that an additional 29 percent indicated they could purchase controlled drugs over the Internet without a valid prescription.
- A 2007 survey at a large public university in the southwest U.S. indicated that 4.4 percent of students reported past-year use of Salvia. It is particularly popular among the subpopulation of students who report using “other” drugs.
Alcohol + Energy Drinks

Energy drinks claim to provide a burst of energy by using a combination of caffeine, guarana, sugars, amino acids, herbs, and vitamins (e.g., Red Bull). The effects of these combined ingredients are not completely understood. In 2006, Americans spent more than $3.2 billion dollars on energy drinks.

A 2006 study published by the Society for Academic Emergency Medicine indicates that almost 25 percent of college students who consumed alcohol reported mixing alcohol with energy drinks. Fifty-five percent of students who consumed alcohol with energy drinks did so to hide the flavor of the alcohol, 15 percent to drink more and not feel as drunk, and 5 percent to not look as drunk. Unfortunately, students whose motor skills and visual acuity are significantly impaired from the combined effects of drinking alcohol and energy drinks usually cannot recognize the serious degree of their impairment.

Students who drank alcohol with energy drinks
- Were more likely to be taken advantage of sexually
- Drank significantly more during a typical drinking session
- Reported almost twice as many heavy drinking days
- Reported twice as many episodes of weekly drunkenness
- Were more likely to ride with a driver under the influence
- Were more likely to be hurt or injured, or require medical treatment
- Consumed 36 percent more drinks during their heaviest single episode of drinking when compared to students who did not mix alcohol with energy drinks

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Alcoholics Anonymous
Noon Meeting (Mon.-Sat.)
Blue Valley United Methodist Church
835 Church Ave.
Phone: 537-9260

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