



# INTELLIGENCE BULLETIN

## LSD Trafficking and Abuse

Product No. 2004-L0424-026

SEPTEMBER 2004

U. S. D E P A R T M E N T O F J U S T I C E

*LSD (lysergic acid diethylamide), a Schedule I drug under the Controlled Substances Act, is a powerful hallucinogen that alters a user's mood, thoughts, and perceptions and can induce delusions and visual hallucinations that distort the user's sense of time and identity. Older adolescents, particularly Caucasian males, are the predominant users of LSD. LSD trafficking and abuse have long been a concern to law enforcement and public health agencies because of the drug's powerful effects; however, national-level data indicate that LSD availability is decreasing and rates of use for LSD have decreased sharply to very low levels.*

### Abuse

National-level drug prevalence studies indicate that past year rates of LSD use are higher among twelfth grade students than any other age group. Monitoring the Future (MTF) data for 2003 reveal that the rate of past year use for LSD among twelfth graders (1.9%) was higher than rates of use among eighth graders (1.3%), tenth graders (1.7%), college students (1.4%), or young adults (1.2%).

MTF data reveal that past year rates of LSD use among males typically are much higher than rates of use among females. MTF data reveal that the past year LSD use rate among young adults was 2.2 percent for males and 1.3 percent for females and among college students was 2.8 percent for males and 1.6 percent for females in 2002—the latest year for which such data are available. MTF 2003 data indicate that among eighth graders, past year rates of LSD use were 1.4 percent for males compared with 1.1 percent for females. Among tenth graders, past year rates of LSD use were 1.9 percent and 1.6 percent for males and females, respectively. Among twelfth graders, past year rates of LSD use were 2.5 percent for males versus 1.2 percent for females.

Drug Abuse Warning Network (DAWN) data indicate that Caucasian males make up the predominant LSD user group entering hospital emergency departments for LSD-induced symptoms. DAWN data for 2002, the most recent year for which such data are available, reveal that 75.2 percent (670 of 891) of emergency department (ED) mentions for LSD were attributed to Caucasian patients, and 87.1 percent (776 of 891) of LSD ED mentions were attributed to male patients.

Data regarding past year rates of LSD use among college students, young adults, and eighth, tenth, and twelfth graders indicate sharp decreases since 1999, particularly among tenth and twelfth graders. (See Table 1 on page 2.)

DAWN data indicate that the number of ED mentions for LSD decreased as the past year rates of LSD use decreased. DAWN data reveal that the estimated number of ED mentions for LSD decreased sharply from 5,126 in 1999 to 2,821 in 2001, to 891 in 2002, the most recent year for which such data are available.

## LSD Use

LSD is taken orally and has a slightly bitter taste. Users apply “hits” of liquid LSD to their tongues from small breath freshener bottles or place gelatin squares, sugar cubes, or small pieces of blotter paper that contain liquid LSD on their tongues. LSD also is sometimes available in tablet form.

LSD users seek the drug’s powerful hallucinogenic properties. The effects associated with LSD use are unpredictable and depend upon the amount taken, the surroundings in which the drug is used, and the user’s personality, mood, and expectations. According to the Drug Enforcement Administration (DEA), the average effective oral dose ranges from 20 to 80 micrograms. During the first hour after ingestion, the user may experience visual changes and extreme changes in mood. In the hallucinatory state, the user may suffer impaired depth and time perception, accompanied by distorted perception of the size and shape of objects, movements, color, and sound. LSD is not considered an addictive drug; however, users may develop a tolerance to the drug and must consume progressively larger doses in order to experience the hallucinogenic effects.

Source: Drug Enforcement Administration.

**Table 1. Percentage of Annual LSD Use by Age Group, 1999–2003**

Age Group	1999	2000	2001	2002	2003
College Students	5.4	4.3	4.0	2.1	1.4
Young Adults	4.0	3.7	3.4	1.8	1.2
Eighth Graders	2.4	2.4	2.2	1.5	1.3
Tenth Graders	6.0	5.1	4.1	2.6	1.7
Twelfth Graders	8.1	6.6	6.6	3.5	1.9

Source: Monitoring the Future.

## Availability

Anecdotal law enforcement reporting regarding LSD availability is mixed. Reporting from federal, state, and local law enforcement agencies indicates that LSD remains available to varying degrees in most metropolitan areas and that availability is very limited in rural areas. Only the DEA Denver Field Division and five High Intensity Drug Trafficking Areas (HIDTAs)—Gulf Coast, Houston, Midwest, North Texas, and South Texas—report increasing LSD availability in their areas. Four DEA Field Divisions—Newark, New York, Seattle, and St. Louis—and four HIDTAs—Nevada, New England, Philadelphia/Camden, and Southeast Michigan—report limited availability.

Notwithstanding the somewhat mixed anecdotal reporting from law enforcement agencies regarding LSD availability, the National Drug Intelligence Center (NDIC) National Drug Threat Survey (NDTS) 2004 data indicate low and decreasing LSD availability. NDTS 2004 data reveal that 17 percent of state and local law enforcement respondents nationwide describe LSD availability as high or moderate, a slight decrease from 18.9 in 2003. Most state and local respondents (66.1%) report low availability in 2004, nearly unchanged from 66 percent in 2003. Moreover, 13.8 percent of respondents report that the drug is not available in their areas, up from 11.9 percent in 2003.

Consistent with NDTS data that indicate decreasing LSD availability, the number of LSD-related arrests, investigations, indictments, and seizures decreased sharply since 2000. For example, the number of arrests reported by DEA for LSD-related offenses decreased from 162 in 2000, to 94 in 2001, to 26 in 2002, to 19 in 2003. The number of LSD-related investigations initiated by DEA also decreased from 85 in 2000, to 40 in 2001, to 14 in 2002, to 13 in 2003. Similarly, the number of Organized Crime Drug Enforcement Task Force (OCDETF) LSD-related investigations decreased from 25 in fiscal year (FY) 2001, to 11 in FY2002, to 6 in FY2003. The number of LSD-related

OCDETF indictments decreased from 15 in FY2001, to 12 in FY2002, to 2 in FY2003. According to DEA System to Retrieve Information From Drug Evidence (STRIDE) data, the number of seized LSD samples submitted for testing decreased from 24,460,969 dosage units in 2000, to 93,973 dosage units in 2001, to 1,624 dosage units in 2002, and remained relatively stable at 1,646.6 dosage units in 2003.

## Production

LSD is manufactured from lysergic acid, which is synthesized from ergotamine tartrate—a fungus that grows on rye and other grains. LSD producers use several production methods; however, all methods require significant laboratory experience and chemical knowledge. LSD production is a lengthy

and complex process; it typically takes 2 to 3 days to produce 1 to 4 ounces of crystal LSD, which is then converted to liquid by dissolving it in a solvent.

Most LSD available in the United States is produced in northern California and the Pacific Northwest by a relatively small network of experienced chemists; however, independent dealers throughout the country produce the drug in limited quantities. Seizures of domestic LSD laboratories are rare. DEA El Paso Intelligence Center (EPIC) National Clandestine Laboratory Seizure System (NCLSS) data show only one reported LSD laboratory seizure in Kansas in 2000, one in Missouri in 2002, and one in California in 2003. The laboratory in Kansas, located in a former missile silo, produced an estimated 94 million dosage units and was DEA's largest LSD laboratory seizure.

### Attempt to Produce LSD in Seattle

On February 5, 2004, agents from DEA with assistance from the Seattle Police Department arrested an individual and seized chemicals and glassware necessary to manufacture LSD from his residence. The suspect was arrested while away from his residence allegedly negotiating a purchase of ergotamine tartrate, an LSD precursor, via telephone from a source in Vietnam. After arresting the subject, DEA agents executed a federal search warrant at his residence resulting in the seizure of approximately 30 liters of chemicals including ether, chloroform, nitrogen, anhydrous ammonia, and bromide. Law enforcement officials also seized computers, glassware, a vacuum pump, a distillation unit, a manual explaining how to manufacture LSD, receipts for chemical and glassware purchases, and approximately 500 OxyContin tablets. According to DEA officials, the suspect was charged with attempted manufacture of LSD and attempted possession of ergotamine tartrate. The King County Sheriff's Office, Seattle Fire Department, and Seattle Medic-1 Unit participated in this investigation.

Source: Drug Enforcement Administration.

## Transportation and Distribution

Transportation and wholesale distribution of LSD is controlled by the limited number of producers of the drug, who supply midlevel distributors in all regions of the country. LSD is transported to midlevel distributors primarily by private vehicles and mail services. Local independent dealers, usually Caucasian males in their late teens or early twenties, are the principal retail distributors of

LSD. However, the Milwaukee HIDTA indicates that some local independent LSD dealers are Mexican nationals, and the DEA Philadelphia Field Division identifies members of outlaw motorcycle gangs as retail distributors of LSD. Sales of the drug most often take place at colleges, high schools, nightclubs, and raves. LSD is distributed in crystal, tablet, and liquid forms and sells for \$1 to \$15 per dosage unit. Liquid LSD is often packaged in small bottles designed to hold breath freshener. LSD also is applied to gelatin squares, sugar cubes, and blotter paper.

## Outlook

---

LSD use will likely remain limited. MTF data reveal that past year use of LSD among adolescents, college students, and young adults has decreased since 1999 and that the level of disapproval of the drug remains very high, particularly among twelfth graders and adults. For example, MTF 2003 data reveal 94.4 percent of twelfth graders disapprove of regular LSD use, versus 77.6 percent of tenth graders and 63.5 percent of eighth graders. MTF 2002 data indicate that disapproval rates of regular LSD use are higher than 95 percent for adults aged 19 to 22 (96.9%), 23 to 26 (97.9%), and 27 to 30 (98.0%).

---

## Sources

---

### Executive Office of the President

- Office of National Drug Control Policy
  - High Intensity Drug Trafficking Area
    - Gulf Coast
    - Houston
    - Midwest
    - Milwaukee
    - Nevada
    - New England
    - North Texas
    - Philadelphia/Camden
    - Southeast Michigan
    - South Texas

### U.S. Department of Health and Human Services

- National Institutes of Health
  - National Institute on Drug Abuse
    - Monitoring the Future
- Substance Abuse and Mental Health Services Administration
  - Office of Applied Studies
    - Drug Abuse Warning Network

### U.S. Department of Justice

- Drug Enforcement Administration
  - Denver Field Division
  - El Paso Intelligence Center
    - National Clandestine Laboratory Seizure System
  - Newark Field Division
  - New York Field Division
  - Philadelphia Field Division
  - Seattle Field Division
  - St. Louis Field Division
  - System to Retrieve Information From Drug Evidence
- Office of the Deputy Attorney General
  - Organized Crime Drug Enforcement Task Force

This page intentionally left blank.

This page intentionally left blank.



319 Washington Street 5th Floor, Johnstown, PA 15901-1622 • (814) 532-4601

NDIC publications are available on the following web sites:

ADNET	<a href="http://ndicosa">http://ndicosa</a>	LEO	<a href="http://home.leo.gov/lesig/ndic">home.leo.gov/lesig/ndic</a>
RISS	<a href="http://ndic.riss.net">ndic.riss.net</a>	INTERNET	<a href="http://www.usdoj.gov/ndic">www.usdoj.gov/ndic</a>