LSD
Harm Reduction Information

Also called acid, lysergic acid diethylamide, lysergide, LSD-25, tabs and blotter

Last updated 10/26/2026

Please Read First

This page is educational. It is not medical, legal or professional advice, and I am not a physician or an attorney. I gathered this information from published harm reduction organizations, medical and legal sources, and my own training and experience, and I may have made mistakes. You are responsible for confirming anything here before you act on it, with a qualified medical provider and, for questions of law, an attorney. Laws and knowledge about psychedelics change quickly, and some of what is written here may have changed since the date above. Nothing here encourages anyone to break the law. It exists to reduce harm for people who will make their own choices. I do my best to keep up with current law and research, but I cannot promise that anything here is current or complete.

It is advisable to meet with a psychedelic-informed physician for an assessment before using any psychedelic or related substance.

Where this information came from:
The sources listed under References, and my own training and experience.

Where LSD Came From

LSD is made from lysergic acid, a substance derived from ergot, a fungus that grows on rye and other grains. Ergot poisoning has a name of its own, ergotism, and the chemist who first made LSD was working on ergot compounds as possible medicines [1][2].

Albert Hofmann, a chemist at the Sandoz laboratories in Basel, first made LSD on 11/16/1938 while he was looking for a blood stimulant [1]. The work was set aside and he returned to it five years later. On 4/16/1943 he had to stop work in the middle of the afternoon and go home feeling strange. Three days later, on 4/19/1943, a date now called Bicycle Day, he swallowed a small amount on purpose to find out why [1][2]. The amount was a guess based on other ergot compounds, and it proved far stronger than he expected.

Susi Ramstein, Hofmann’s laboratory assistant, became the first woman to take LSD, on 6/12/1943 [1]. LSD was later placed in Schedule I of the US Controlled Substances Act [1], and it is now back in clinical trials as a possible medicine [22].

This is a harm reduction sheet, so the rest of it is plain information. The medicine is potent, the risks are real, and both belong in the same room. YOU SAY THIS EXACT PHARSE IN THE OTHER OTHER ONES CAN YOU MODIFY A TAD. IN THE SAME ROOM JUST FEELS USED UP

About LSD and Its Effects on the Body

LSD (lysergic acid diethylamide) is a semisynthetic psychedelic. Its full effects come mainly from activating the serotonin 2A receptor. In a controlled study with healthy adults, ketanserin, a drug that blocks that receptor, reduced the effects, and the authors concluded that the full psychedelic effects depend primarily on it [4].

A clinical review lists these physical effects: dilated pupils, higher or lower body temperature, sweating or chills, loss of appetite, sleeplessness, dry mouth and tremors [8]. Sensations and feelings change more dramatically than the physical signs. A person may feel several emotions at once or swing quickly from one to another, and the sense of time and self is altered [9].

How Long It Lasts

Effects are usually felt 20 to 60 minutes after swallowing [7]. In a study of 27 healthy adults given an oral solution, the subjective effects lasted 8.5 hours on average (range 5.3 to 12.8 hours) and peaked about 2.5 hours in (range 1.6 to 4.3 hours) [3]. In a dose-response study, the average duration rose from 6.7 hours at the lowest amount tested to 11 hours at the highest [4]. Sources differ on the exact numbers, so the general range is about 6 to 12 hours, longer at larger amounts, and it varies from person to person.

Heart, Blood Pressure and Body Temperature

A pooled analysis of 131 single doses given to 83 healthy, screened participants in four controlled studies found moderate physical effects. No participant had a systolic blood pressure over 180 at any time. Peak heart rate went over 100 beats a minute in 0%, 6%, 20% and 25% of participants at four increasing amounts, and peak body temperature went over 38°C in 0%, 11%, 7% and 34% [5]. The authors concluded that a single dose is safe in regard to acute psychological and physical harm for healthy people in a controlled research setting [5].

In a direct comparison in the same people, psilocybin raised blood pressure more than LSD, and LSD raised heart rate more. Taken together, the strain on the heart was comparable [6]. Because these were screened, healthy participants, the numbers say little about people with heart conditions.

Toxicity and the Mind

LSD is not a particularly toxic drug. Deaths linked to it are usually the unintended results of distorted perception, such as falls [7]. The main risks are psychological and situational.

In the dose-response study, positive effects reached a ceiling at a middle amount, while ego dissolution and anxiety kept rising above it, and the highest amount tested produced significant anxiety [4]. Some people have severe, terrifying thoughts and feelings of despair, fear of losing control, or fear of insanity and death [9]. A clinical review also describes relatively long-lasting psychosis or severe depression after use [8].

Flashbacks and HPPD

Flashbacks are sudden, unexpected recurrences of parts of the experience. They can happen within days of use or more than a year later [9]. In some people they persist and cause distress or get in the way of daily life, a condition called hallucinogen persisting perception disorder (HPPD) [9]. Reported symptoms include visual trails, halos, intensified light and visual snow [11].

HPPD appears to be genuine but uncommon. It is reported most often after illicit LSD use and less often after LSD given in research settings, and the word “flashback” has been defined in so many ways that the older studies are hard to interpret [10]. A 2022 scoping review calls it uncommon yet serious and found no established risk factors [11]. In one survey of people with lifetime psychedelic use, 1.3% said a doctor or other medical professional had told them they had HPPD [12].

How It Is Taken

LSD is swallowed. The most common street form is a small piece of blotter paper, and it also comes as a liquid or a gel [21]. Blotter squares are usually about a quarter inch across and perforated so they can be torn apart [19]. LSD is almost tasteless [21], so taste tells you nothing about what is on the paper. Effects begin 20 to 60 minutes after swallowing [7].

In clinical research LSD is given as an oral solution or as a tablet that dissolves on the tongue [3][22].

Repeated Low Amounts and Microdosing

Tolerance builds quickly with repeated use and fades within several days [7][9]. Microdosing is a pattern of repeated use of small amounts, usually over weeks or longer.

LSD binds the serotonin 2B receptor about as potently as it binds its main target, the 2A receptor [13]. Long, repeated activation of the 2B receptor is a known cause of heart valve damage with some other drugs. A review concluded that valvular heart disease is a potential risk of chronic psychedelic microdosing and that more studies are needed to define it [13]. A single dose, or a few doses spaced weeks or months apart, carry a far more limited physical risk by comparison [14].

Randomized trials of LSD microdoses have not shown antidepressant, anxiolytic or thinking-enhancing effects [14]. If you have any heart condition, microdosing is a question for a physician before anything else.

Legal Status

Last checked 10/26/2026. This area of law is changing, and the clinical trials described below are expected to report results during 2026 [22].

Federal

LSD is a Schedule I controlled substance under the US Controlled Substances Act [1]. It is not approved as a medicine. A pharmaceutical form of LSD called MM120 has FDA Breakthrough Therapy designation for generalized anxiety disorder and is in three Phase 3 trials. As of the developer's 9/4/2025 announcement, topline data were expected during 2026 [22].

Colorado

LSD is not covered by Colorado's Natural Medicine Health Act of 2022. The Act covers psilocybin, psilocin, DMT, ibogaine and mescaline that does not come from peyote [24]. LSD and MDMA remain Schedule I under Colorado law, and the protections for personal use and the licensed healing center program do not apply to them [23].

Contraindications

Certain medications and conditions make LSD riskier or change what it does. Much of the evidence below comes from case reports, online experience reports and small studies, so it is thin, and sources sometimes disagree. A systematic review of 52 studies of classic psychedelics found no serious adverse drug events apart from a few case reports, and its authors point out how limited the data are [16]. Check with a PSYCHEDELIC-EDUCATED medical provider before using, and never stop or change a prescribed medicine on your own, because stopping some of them carries risks of its own.

Medications

- **Lithium:** seizures are the main concern. In an analysis of online experience reports, 27 of the 55 reports of LSD with lithium (49%) involved a seizure, and the signal stayed when reports naming another psychoactive drug were removed. Reports with lamotrigine did not show seizures [17]. Erowid collects reports of life-threatening seizures and at least one death with this combination [15]. These are self-reported accounts, not controlled studies.
- **Tricyclic antidepressants (amitriptyline, clomipramine, imipramine, nortriptyline):** reported fairly consistently as very bad in combination with LSD [15]. A review of the evidence notes that chronic tricyclic and SSRI use have opposite effects

on LSD, so the interaction is likely complex and has not been tested in controlled trials [18].

- **SSRIs (fluoxetine, sertraline, paroxetine, citalopram):** reported to reduce the effects of LSD [15]. In at least one study fluoxetine also delayed onset in about half of participants [16].
- **MAOIs (phenelzine, tranylcypromine, isocarboxazid, selegiline):** reported to reduce the effects of LSD, more than SSRIs do [15].
- **Antipsychotics and other medicines that block the serotonin 2A receptor:** drugs that block this receptor reduce or abolish the effects of LSD [16][4].
- **Medicines that act on liver enzymes:** in laboratory work, inhibitors of several liver enzymes (CYP3A4, CYP2E1, CYP2D6, CYP1A2 and CYP2C9) decreased LSD metabolite formation, while omeprazole and rifampicin increased it by about 30%. Whether this changes the experience in people has not been established [18].

Conditions

- **High blood pressure and heart disease:** blood pressure and heart rate rise after LSD [4][5][6], and the studies enrolled only healthy, screened participants [5].
- **Heart valve disease, and frequent or repeated use:** long-term activation of the serotonin 2B receptor is the concern [13].
- **Family history of psychotic or bipolar disorders:** in a survey, psychotic symptoms in the past two weeks were highest among people with lifetime psychedelic use and a family history of psychotic or bipolar disorders. The authors advise caution in reading this [12].
- **Conditions that raise body temperature or make heat dangerous:** body temperature went over 38°C in 34% of participants at the highest amount tested [5]. Ask a provider what this means for you.

Addiction and Misuse

Physical dependence, addiction and misuse are three different things. Physical dependence means the body has adapted to a substance and reacts with withdrawal when it is stopped. Addiction, which the DSM-5 calls substance use disorder, is a pattern of continued use despite harm. Misuse is using a substance in a way or an amount that causes harm or was not intended, and it can happen without addiction.

For LSD, the evidence on physical dependence and addiction is low. LSD is not thought to cause physical dependence, and there are few physical effects when use stops [7]. The National Institute on Drug Abuse describes it as not addictive, since it does not produce compulsive drug-seeking [9]. Tolerance does develop with repeated use and is lost within several days, and cross-tolerance with other psychedelics such as mescaline has been reported [7][9]. Some regular users develop psychological dependence, although this is not common [7]. Low is not none. The concerns that remain are psychological, and the risk of acting dangerously while perception is altered.

Synergistic Effects and Combining Medicines

The medicines listed under Contraindications are the combinations with the best documentation. The handout Psychedelics and Cautions names more combinations known to go badly, with a note that this is a young field and caution is the best way to proceed. Any other substance can change the experience in ways nobody has studied well, so check each one with a medical provider.

Testing and Purity

The purity problem specific to LSD is substitution. After 2010, a family of chemicals including 25I-NBOMe and 25C-NBOMe began to be sold on blotter, in a size and form often indistinguishable from LSD blotter [19]. NBOMe compounds can cause dangerously high blood pressure and seizures, and in some cases death [21]. You cannot tell them from LSD by looking.

Ehrlich reagent reacts with indoles, the chemical structure LSD belongs to. It does not identify LSD definitively, but it can show that LSD is absent [19]. Erowid tested two commercial LSD field kits against lab-verified LSD and lab-verified 25I-NBOMe: both changed color with LSD and neither did with 25I-NBOMe [20]. Blacklight is not a dependable test. LSD glows blue to blue-white under long-wave UV light, but many papers and inks glow on their own, so a glowing square proves little [19].

A reagent test answers one question. It cannot measure strength and it cannot see everything on the paper. Treat a result as a warning light, never as a guarantee [21]. Erowid's DrugsData publishes lab results for street samples, and DanceSafe sells test kits.

Preparation and Integration

Dosing and timing numbers belong to the sources listed at the end of this sheet and to a medical provider, because they change more often than this sheet does.

Before

Preparation starts weeks ahead. Ask a psychedelic-informed physician to go through your medications and your heart, and bring the list under Contraindications with you. Do not stop a prescribed medicine on your own. Test what you have, as described above.

This is a long experience. The studies measured effects lasting from about 5 hours to nearly 13 [3], so clear the whole day and the evening. Have a sober sitter you trust, a room where you will not be interrupted, a bathroom close by, and no plans to drive afterward.

After

The days after belong to the experience too. Sleeplessness is a reported effect [8], so leave the next morning open. Write or draw what came up, and talk with someone who can hear it without needing it to mean something. If something frightened you, or visual changes keep returning, bring it to a qualified professional. Fireside Project offers peer support after an experience as well as during one.

If You Need Help Now

In a medical emergency, call 911. If you are in emotional crisis, you can call or text 988. Fireside Project has trained volunteers who talk with you by phone or text during and after a psychedelic experience, and DanceSafe sells kits for testing what you hold.

Call 911 for a seizure, loss of consciousness, confusion that does not clear, or a very high body temperature [17][5]. Seizures and dangerously high blood pressure are also reported with NBOMe compounds sold as LSD [21]. Call Poison Help at 1-800-222-1222.

Where to Find More Information and Support

Amounts, timing and combinations are best checked against these sources and with a medical provider, because they are updated more often than this sheet. Erowid, TripSit and PsychonautWiki include user reports and community writing, so read them as experience as well as research.

- Erowid: https://erowid.org. Library on psychoactive plants and chemicals, with an LSD section and a lab testing results database called DrugsData.
- DanceSafe: https://dancesafe.org. Drug checking, test kits and education.
- TripSit: https://tripsit.me. Harm reduction information and support.
- PsychonautWiki: https://psychonautwiki.org. Community written substance information.
- Zendo Project: https://zendoproject.org. Peer support and education for difficult psychedelic experiences.
- Fireside Project: https://firesideproject.org. Free, confidential psychedelic peer support by phone, text and app.
- MAPS: https://maps.org. Psychedelic research and news.
- Poison Help: 1-800-222-1222.

Mailing Lists

- Erowid Monthly, a free email list: https://www.erowid.org/about/about_announcements.shtml
- Erowid Extracts, the members' newsletter: https://erowid.org/membership/
- MAPS email newsletter: sign up at https://maps.org

References

The numbers in brackets in the text point to these references. Where a source is a summary page, the studies it cites are named beneath it, and those should be checked against the originals before this sheet is final.

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