

## LSD

**AKA:** Lysergic Acid Diethylamide, LSD-25, acid, tabs, trips, microdots, 'cid, blotters, panes.

Specific 'brands' of LSD may get their name from logos and images printed on to drug-impregnated paper (see below). The 'S' in LSD stands for "saur" – the German noun for acid.

**DRUG CATEGORY:** LSD is a Hallucinogen. Some refer to it as a psychedelic, to differentiate it from other hallucinogens (such as dissociatives or deliriants.)

**SOURCE:** LSD is derived from the fungus ergot through a series of complex chemical processes. While various internet sources profess "easy" manufacturing processes, production of LSD is not straightforward and requires specialist resources and knowledge.

Some production methods found on-line and in 'cook-books' could result in highly dangerous compounds, which can and have resulted in fatal poisoning.

UK LSD is produced within the British Isles or imported from Mainland Europe

**APPEARANCE:** LSD, in its pure state, comes as crystals that can be dissolved in distilled water to make a clear, odourless liquid. This is usually soaked into sheets of paper ("blotters") which are cut into small squares ("tabs") for sale at a street level. The square may be plain paper or thin card, or may be over-printed with a design. These are many and varied, and include cartoon characters, ("Bart Simpson," "Batman,") new-age symbols ("Ohm"-designs), or just about anything else - strawberries, penguins, smiley faces and so on. Microdots are small dark brown/black pellets, slightly larger than a pin-head.



**COSTS:** £2-4 per tab.

**DOSE RANGE:** LSD is effective at very low doses. A threshold dose could be as low as 25 micrograms (25 µg). In the Sixties and Seventies doses ranged from 30 to 300 µg. In the UK potency dropped in the late Eighties onwards, with a typical dose range around of under 50 µg).

[a microgram is 1 millionth of a gram, or or 1000<sup>th</sup> of a milligram. A quarter of a gram (250mg) is 250,000 µg or 5000 average sized doses of LSD.

**QUALITY:** It is impossible to predict the strength of LSD on the street. While it is possible to get sold a piece of cardboard soaked in nothing, this is less common than one might suppose. However, LSD is not a very stable

compound, and degrades in sunlight or warm conditions. So LSD ranges from being very weak to very strong.

To further complicate matters a novel psychoactive compound called 25i-NBOMe appeared on the market around 2013. It was initially unregulated in the UK and was sold on-line and via head-shops.

It too was a powerful hallucinogen, with typical doses from around 500 µg. It was often sold on blotters in the same way that LSD was sold and some sources suggest that the same blotter designs associated with LSD were also used for 25-NBOMe (e.g. Purple Ohms).

Anecdotal evidence suggests that experienced users could probably subjectively differentiate the effects of the two drugs but for people with little or no previous experience with either drugs may not know which drug they have taken.

**METHODS OF USE:** LSD is usually taken orally, and can just be chewed or actually swallowed. Sources argue about the risks of LSD absorption through the skin. This mainly seems to be a risk for those handling significant quantities but also could apply where LSD remains in prolonged contact with the skin, especially if it is damp, or thin. LSD takes between thirty minutes and an hour to take effect, and the effects, or "trip" can last between eight and twelve hours.

**MECHANISM of ACTION:** How LSD works is not fully understood. One of its primary mechanisms of action is to act as a serotonin agonist (mimic) at a number of serotonin receptors.

**EFFECTS:** The effects of LSD use are usually called "tripping." These effects are unpredictable and vary hugely from person to person. The drug works on the brain and causes changes to thoughts, senses and perceptions.

Visual disturbance can range from the very slight, such as seeing traces off lights and moving objects, through to hallucinations which may be visual or auditory. Most common, especially at lower doses, is visual distortion of real objects, such as walls becoming distorted, changes in the way people or objects look, and floating patterns in the air.

The effects on a user's thought processes are also very pronounced. Users can enter a dream-like state, become very self aware, and feel as though they are experiencing moments of enlightenment, or having mystical experiences. However, users can also experience high levels of anxiety, dizziness or disorientation.

Generally, pleasant and enjoyable experiences on LSD are called "good trips" and those that are frightening are called "bad trips." The actual nature of the

LSD has no influence over whether a trip is good or bad - indeed there is ultimately no way to predict whether one will have a good or bad trip. However, some factors, such as taking LSD only when you are in an environment where you feel safe, with people that you trust, at a time when you feel content and relaxed, may lessen the chance of having a very bad trip. The way that LSD works is only poorly understood, but it is evident that it has a capacity to exacerbate underlying fears, tensions, or memories. So it is possible that LSD could trigger anxiety or unhappy thoughts, even if the user wasn't aware of them prior to using.

**INDICATORS of USE:** LSD is odourless, colourless and is not associated with any paraphernalia and so there are no tell-tale smells or equipment associated with this drug.

The main indicators include dilated pupils and significantly altered behaviour. This could include the person experiencing mood-swings, responding to hallucinatory audio or visual cues, experiencing hilarity or panic, disjointed, random or fantastic conversations, fixating on objects or thoughts, and not responding to cues and questions in a normal way.

**HEALTH IMPLICATIONS:** The most common health risk attached to LSD use is causing either short or long term psychological damage. LSD can trigger a range of psychiatric problems, and hence anyone with a history of mental health problems, would be advised to avoid LSD.

Frequent long-term use can leave people seeming disorientated for quite a long time; such cases were known, especially through the sixties as "acid casualties." Some studies suggest that LSD use can cause permanent eye damage, and suggestions have been made as to links with long term brain damage. There is a risk that someone using LSD could injure themselves while delusional; many such cases have been reported in the media, though very few have been substantiated.

Some users report experiencing "flashbacks," reliving a few seconds or minutes of an LSD-induced trip, weeks, months or rarely years after taking the drug.

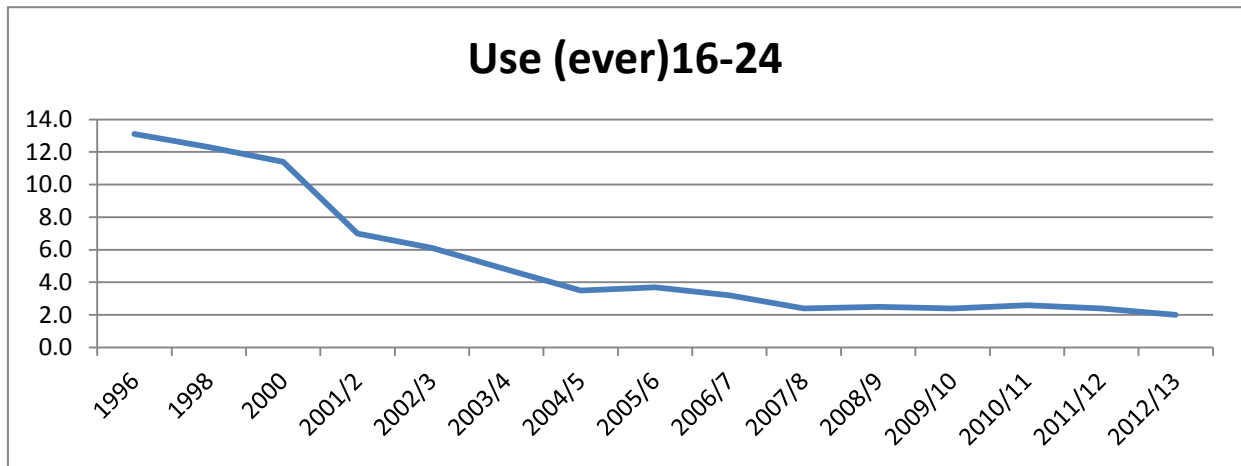
LSD is not physically addictive; indeed, if used every day for 3 or 4 days, it would cease to be effective, unless the user abstained for a further few days.

LSD interacts badly with both alcohol and cannabis; while not dangerous, the risks of unpleasant side effects, especially nausea and anxiety, seem to increase.

**LEGAL STATUS:** LSD is a Class A, Schedule 1 drug, and currently has no medical or therapeutic use in this country.

**TRENDS:** LSD enjoyed high levels of popularity during the sixties and seventies. After waning popularity it experienced a resurgence in the late 80s. Since then however it has dropped massively in popularity, having been supplanted by stimulants like cocaine, other hallucinogens like magic mushrooms, ecstasy and emergent Novel Psychoactive Compounds.

Whereas in 1996 almost 14% of 16-24 year olds reported having used LSD, by 2012/13 this had dropped to around 2%.



#### **OTHER INFORMATION:**

People using LSD are often quite suggestible; so if someone is having a bad trip, it is often possible to talk them out of it, by being calm and reassuring. Orange juice, though alleged to bring people off a trip, is more placebo than medical fact.

There were suggestions that LSD was being sold to school-kids in the form of tattoos; this was more likely to be ignorance of the form that LSD is sold in, i.e. squares with cartoons or pictures on them.

There is a prevalent urban myth that "flash-backs" are caused by crystals of LSD lodged in brain or spinal tissue becoming dislodged. This is complete myth.

A small number of people may put LSD on the eye believing it will get absorbed more rapidly or that it will cause more visual trips. It will probably just cause eye irritation.

LSD remains in the urine for 2 to 3 days.

LSD has been tried in the past as a truth drug, a tool for psychotherapy and for the treatment of alcohol and heroin dependency.