## Easily Microdosing with Precision

LSD is dispensed in various commonly available forms: as a concentrated liquid, on a type of paper known as blotter, in thin sheets of gelatin (known as geltabs, or "windowpane"), and on tablets, ranging from very small "microdots" to more standard-sized tablets. LSD is sometimes encountered in its powdered, crystalline form as well. Each of these forms offer benefits and challenges to dosing. Doses per "hit," or active dose, can range significantly based on the amount of LSD used, its age, and how it was stored.

It is also important to know that a number of other compounds are sold as LSD. It is extremely important to have a trusted source of pure and precisely dosed LSD. In order to accurately determine your microdose, it is important to know the amount of LSD per unit of use (such as $100 \mu \mathrm{~g}$ per tab or $2000 \mu \mathrm{~g}$ per ml , which equates to roughly $100 \mu \mathrm{~g}$ per drop). Knowing the dose of starting material is the only way to know the resulting microdose.

LSD is active in very small amounts, with doses measured in millionths of a gram (microgram, abbreviated $\mu \mathrm{g}$, ug, or mcg). Microdoses typically range from 5-20 $\mu \mathrm{g}$ (Passie, 2019), which can make the precise microdosing of LSD difficult, particularly when a few micrograms can differentiate between a subperceptual microdose and a dose that significantly alters perception. Thankfully, simple solutions to precise microdosing are easily achievable.

Most readily available forms of LSD can be easily microdosed, with the exception of microdots, tablets, and fully psychedelic doses of liquid applied to mediums such as sugar cubes. Perhaps the most commonly available forms of LSD, being blotter and geltab (doses of both types are often referred to simply as tabs), can be microdosed by cutting them into small pieces.

## Microdosing via blotter cutting:

LSD in both blotter paper and geltab forms can be microdosed via cutting the tabs into small pieces. This method is simple and only requires materials that are readily available to most people. However, it can be difficult to cut uniform pieces with precision, which could result in a variation of dose.

## Items needed:

-LSD blotter
-Pencil
-Ruler

- Hobby knife or other cutting tool
-Cutting board

Items needed for blotter-based microdosing:


## Procedure:

It is important to note that blotters and geltabs come in a variety of sizes, typically ranging from $1 / 4$ inch $(6.35 \mathrm{~mm})$ to 8 mm . To begin, measure the size of the tab. The amount of LSD on the tab and number of divisions will determine the amount of the microdose. A standard sized tab can easily be divided into 4,8 , and 16 . A tab with $100 \mu \mathrm{~g}$ can then be cut into doses of $25,12.5$, and $6.25 \mu \mathrm{~g}$, respectively.

The example below shows two ways to divide a blotter into 8 and 16 pieces. The tab is 8 $\mathrm{mm} \times 8 \mathrm{~mm}$ and reportedly dosed at $150 \mu \mathrm{~g}$. The tab on the left was first divided into 4 pieces by measuring the halfway point of each side $(4 \mathrm{~mm})$. The resulting 4 pieces were then subdivided in one direction only, resulting in 8 pieces which are approximately $18.75 \mu \mathrm{~g}$. The pieces could have been divided with diagonal cuts, however this creates small points that increase the likelihood of the blotter paper or geltab cutting unevenly. The tab on the right shows the tab marked in 2 mm increments, creating a grid of 16 pieces, each approximately $9.375 \mu \mathrm{~g}$.

LSD blotters sectioned for microdosing:


This form of microdosing is simple, but measuring and cutting small amounts can result in inaccurate dosing. Additionally, small pieces can be easily lost. To prevent this and to allow for improved precision in dosing, volumetric dosing can be used.

## Volumetric dosing:

Volumetric dosing allows for an easy and more precise way to microdose. Volumetric dosing is a process in which a substance is dissolved into water (or another solvent) to allow for measuring based on the volume of liquid rather than weight of the substance. By dissolving a known dose of LSD (e.g., $100 \mu \mathrm{~g}$ ) in a known volume of liquid (e.g., 10 ml ), a more precise dose can be measured. Volumetric dosing is easily accomplished with a few readily available items. The procedure for volumetric dosing is similar, regardless of the form of LSD, however some steps differ.

## Items needed:

- LSD
- Amber glass dropper bottle, graduated on the bottle or on the dropper itself

Amber glass bottle with volumetric labelling:


Dropper with volumetric labelling:


Distilled water:


Small funnel (optional):


Oral syringe (optional, allows for more precise graduations):


Important: LSD is broken down by light and chlorine. The use of an amber bottle helps block light, while the use of distilled water prevents the potential of breakdown of LSD by chlorine (such as that in tap water)

## Procedure:

1. Add a known amount of distilled water to a glass dropper bottle. A small funnel can aid in filling the bottle.
2. Add a known dose of LSD (a tab, drop of liquid, etc.). Remember that the dose of LSD can vary based on a number of factors. In this example, a tab of $150 \mu \mathrm{~g}$ was added to 15 ml distilled water, resulting in a concentration of $10 \mu \mathrm{~g}$ per ml .
3. Close the bottle and shake vigorously. Using a label or a piece of paper and tape, note the concentration of the solution.


Volumetric dosing with powdered LSD:

## Items needed:

- All items from the above section
- Milligram scale
- Calibration weights
- Small powder spoon
- Gloves

Things you will need for volumetric microdosing:


CAUTION: LSD is easily absorbed through the skin in liquid and powdered forms. Remember, 1 mg of powdered LSD is equal to 10 full doses and up to 200 microdoses! Coming into contact with even a small amount can result in a profound experience. It is necessary to use gloves while working with powdered LSD. Additional precautions such as long-sleeved clothing, a face mask, and working in an area free from moving air (fan, window, air conditioning, etc.) can help to prevent accidental dosing.

Before measuring LSD, be sure to calibrate your scale according to manufacturer's instructions.

Weigh a small amount of LSD. Remember, 1 mg , which reads 0.001 on a milligram scale, is 10 full doses and between 50 and 200 microdoses.

Insert small funnel into the graduated amber bottle. Use the powder spoon to scrape as much of the LSD as possible into the bottle via the funnel, trying to maximize the amount that goes straight into the bottle. Using an oral syringe filled with distilled water, gently rinse the weighing tray above the funnel, and pour from the spout portion of the weighing tray so that any remaining LSD on the tray or funnel is rinsed into the bottle.

Note the weight of LSD in the volume of distilled water. For example $5 \mathrm{mg}(0.005 \mathrm{~g}$ or $5000 \mu \mathrm{~g}$ ) in 50 ml distilled water creates a concentration of $100 \mu \mathrm{~g}$ per ml . Because a microdose is a fraction of that amount, it can be further divided to an appropriate concentration. For example, 1 ml of a $100 \mu \mathrm{~g} / \mathrm{ml}$ solution can be added to a dropper bottle. Distilled water can then be used to create a total volume of 10 ml , resulting in a concentration of $10 \mu \mathrm{~g} / \mathrm{ml}$.

## Milligram scale:



## Finding your dose:

An important reminder is that a microdose should be sub-perceptual. Reported dose ranges are helpful in finding a starting place but people's sensitivity to LSD can vary significantly; what could be a perfect microdose for someone could be too much or too little for someone else. Volumetric dosing can be used to help discover what dose is right for you. The example above used a ratio of 100 ug LSD to 10 ml distilled water, resulting in a concentration of $10 \mu \mathrm{~g} / 1 \mathrm{ml}$, with a corresponding dose being measured via graduations on the bottle or dropper. For example, a dropper with 0.25 ml graduations can easily measure doses in $2.5 \mu \mathrm{~g}$ increments with the above concentration.

For particularly sensitive people, the volume of water can be adjusted for increased accuracy. A $100 \mu \mathrm{~g}$ blotter in 100 ml of water gives a concentration of $1 \mu \mathrm{~g} / \mathrm{ml}$, enabling extremely precise doses.

## References:

Passie, T. (2019). The science of microdosing. London, UK: Psychedelic Press.

