

LSD (lysergic acid diethylamide) is a psychedelic drug that exerts its effects by interacting with serotonin receptors in the brain. [1, 2]

Serotonin and LSD Interaction: [3]

- Serotonin is a neurotransmitter that plays a role in mood, sleep, appetite, and other functions. [4, 5, 6]
- LSD is a serotonin receptor agonist, meaning it binds to and activates these receptors. [1]
- When LSD binds to serotonin receptors, it alters the release, uptake, and signaling of serotonin in the brain. [7, 8, 9]

Effects on Serotonin Levels: [10]

- LSD initially causes a rapid increase in serotonin release in the brain. [10]
- This is followed by a prolonged decrease in serotonin levels, as LSD continues to occupy the receptors and prevents further release. [11, 12, 13]
- The altered serotonin levels contribute to the psychedelic effects of LSD, such as hallucinations, altered perception, and changes in mood and consciousness. [14, 15, 16]

Note: [17, 18, 19]

- The effects of LSD on serotonin levels can vary depending on factors such as the dose, individual metabolism, and other drugs or substances present in the body. [17, 18, 19]
- It's important to note that LSD is a Schedule I drug in the United States, meaning it has a high potential for abuse and no currently accepted medical use. [20, 21, 22]

Generative AI is experimental.

[1] <https://en.wikipedia.org/wiki/LSD>

[2] https://en.wikipedia.org/wiki/Serotonin_receptor_agonist

[3] <https://www.med.unc.edu/pharm/this-is-ld-attached-to-a-brain-cell-serotonin-receptor/>

[4] <https://www.brainfacts.org/brain-anatomy-and-function/cells-and-circuits/2024/deep-dive-into-the-science-of-ld-021524>

[5] <https://science.howstuffworks.com/ld4.htm>

[6] <https://www.vaia.com/en-us/textbooks/psychology/psychology-openstax-1-edition/chapter-4/problem-20-ld-affects-neurotransmission-a-dopamine-b-seroto/>

[7] <https://www.med.unc.edu/pharm/this-is-ld-attached-to-a-brain-cell-serotonin-receptor/>

[8] <https://www.brainfacts.org/brain-anatomy-and-function/cells-and-circuits/2024/deep-dive-into-the-science-of-ld-021524>

[9] <https://www.theedgetreatment.com/ld-the-effects-and-dangers-of-using-ld/>

[10] [https://jpet.aspetjournals.org/article/S0022-3565\(25\)26146-8/fulltext](https://jpet.aspetjournals.org/article/S0022-3565(25)26146-8/fulltext)

[11] <https://www.med.unc.edu/pharm/this-is-ld-attached-to-a-brain-cell-serotonin-receptor/>

[12] <https://www.sciencedirect.com/science/article/pii/S009130577690232X>

[13] <https://www.chm.bris.ac.uk/motm/serotonin/LSD.HTM>

[14] <https://www.vaia.com/en-us/textbooks/psychology/psychology-openstax-1-edition/chapter-4/problem-20-ld-affects-neurotransmission-a-dopamine-b-seroto/>

[15] <https://www.camh.ca/en/health-info/mental-illness-and-addiction-index/ld>

[16] <https://www.sandstonecare.com/blog/ld-abuse-fact-sheet/>

[17] <https://www.futurity.org/ld-anxiety-2712602-2/>

[18] <https://adf.org.au/insights/roadside-drug-testing/>

- [19] <https://proto.life/2022/04/do-psychedelics-need-psychiatrists/>
- [20] https://www.dea.gov/sites/default/files/2020-06/LSD-2020_0.pdf
- [21] <https://www.theedgetreatment.com/lsd-the-effects-and-dangers-of-using-lsd/>
- [22] <https://www.addictioncenter.com/drugs/hallucinogens/lsd-addiction/>