

Mescaline

History/Background

Mescaline was first isolated in 1897 by Arthur Heffter from peyote. Mescaline is the active ingredient in psychoactive cacti such as peyote, peruvian torch, and San Pedro.

Legal usage in the US is limited to the form of peyote and is only available to certain Native Americans. Mescaline has been used in Native religious & shamanic ceremonies for thousands of years. The Catholic church (and many others) tried to suppress the use of traditional plant medicines but they have persisted until this day. The rarity of peyote is guarded by the Native American Church in the US and they serve as it's protector, stewarding it's traditional lands.

San Pedro (literally St Peter- the one guarding the gates to heaven in some lore) is originally named Huachuma and comes from the Andes. The name San Pedro was given actually to protect it from the colonial forces. It is more abundant than peyote, which is a more fragile and endangered plant. San Pedro is said to be not as strong as peyote, but for sustainability reasons it would be wise to seek San Pedro preferentially. San Pedro will grow 15-20 feet tall whereas peyote consists of tiny buttons growing close to the ground and take many years to reach maturity.

Mescaline's potential as a therapeutic substance was studied in the 1950s and 1960s—particularly in combination with LSD. Early results found that mescaline could be used to successfully treat addiction and depression, but research was cut short when the drug was made illegal.

One of the most famous accounts on mescaline comes from the book 'Doors of Perception' by Aldous Huxley, based on his experience in 1953. Hunter S. Thompson of Fear and Loathing fame also brought mescaline into mainstream awareness. Intelligence agencies in the early '50s also took an interest in using mescaline as a 'truth serum' much like they did with LSD. (1)

The famous chemist Alexander Shulgin used mescaline as a starting point for much of his research.

Potential Benefits

Set and Setting are probably the two most influential and critical factors that will determine the direction and quality of the ensuing experience.

Benefits include enhanced learning potential-1 study suggested the potential for improving learning speed in goldfish.(2) While that may sound unimpressive, one must remember that studies on mescaline's positive effects are rare. Users have also commonly reported spiritual awakenings and a sense of interconnectedness with all life.

Research into mescaline's psychotherapeutic potential is still limited, but renewed interest in the drug shows that it could successfully treat mental health disorders. Studies suggest, for example, that mescaline may increase blood flow and activity in the prefrontal cortex, the area of the brain in charge of planning, problem-solving, emotional regulation, and behaviour. Low activity in this area is linked to depression and anxiety, leading scientists to hypothesize that mescaline could help alleviate symptoms of these disorders.

Results would correlate to a subjects' willingness to engage with the experience, to face themselves and to act upon the insights received. In one mid-century study, some of the most significant transformations or breakthroughs came about months after the experience itself, even if the initial psychedelic therapy session seemed to be a failure. In the context of psychotherapy, mescaline may also be useful for re-living or recalling repressed memories.

Mescaline is said to be less visionary than LSD but is excellent for revealing deeper layers of existence and breaking out of mental ruts.

Pharmacology

Mescaline is a substituted phenethylamine, a molecule based on the basic phenethylamine structure. Along with MDMA, 2C-B, and others, this sets it apart from the tryptamine class of psychedelics, which includes psilocybin, LSD, and DMT. (3) Chemically, it shows structural similarities to the synthetic atypical psychedelic MDMA. (4)

General Effects

Oral (being the most common and traditional route of administration)

Onset 20-75 minutes

Duration 4-10 hours

After-effects 2-4 hours

Effects are strongly felt in the visual realm but not quite as strongly as LSD. It is hallucinogenic and the degree of that will depend upon tolerance and the dosage taken. Possible effects include increased empathy, sensory distortions, enhanced introspection, conceptual thinking, euphoria, and ego loss. It is considered to be one of the best agents for psychedelic therapy due to its mellow, organic, yet complex character.

Dosing

After being absorbed by the bloodstream, mescaline has a half-life in the body of around 6 hours. Peak concentrations of mescaline occurs about 2 hours after oral administration, this corresponds to the time period of highest psychedelic effect. Drug levels in the blood drop gradually over 10 hours, with 87% of the dose eliminated after 24 hours.

Extracted mescaline may be less nauseating and more cerebral.

<u>Threshold</u>	50 mg
<u>Light</u>	50 - 200 mg
<u>Common</u>	200 - 400 mg
<u>Strong</u>	400 - 800 mg
<u>Heavy</u>	800 mg+

Note : Repeated, closely spaced use can produce a tolerance to mescaline's physiological, subjective and psychological effects. Repeated use over a 3 - 6 day period does lead to significant tolerance in man. Cross-tolerance to LSD and psilocybin has been demonstrated. Mescaline tolerance does not lead to physiological dependence like opioids, or alcohol.

Interactions/Contraindications

Mescaline is contraindicated in developing children, and in pregnant and lactating women. Avoid taking mescaline if you're feeling highly nervous, stressed or depressed. It is not recommended for those with serious hypertension.

Contraindicated with Tramadol, cocaine, 5MeODMT, and MAOIs. Be very cautious if mixing with other stimulants or alcohol. Better yet don't do it.

Driving or operating machinery while under the influence should be strictly avoided.

All that being said, it's doesn't seem that anyone has ever died from it's sole use in human history. A study among Native Americans found no long term concerns. (5) There is no lethal dose and it's generally quite safe, with most people reporting positive benefits.

References

- (1) Lee, M.A., Shlain, B. (1985). *Acid Dreams: The CIA, LSD and the Sixties Rebellion*. New York, NY: Grove Press.
- (2) <https://www.ncbi.nlm.nih.gov/pubmed/991995>
- (3) <https://thethirdwave.co/psychedelics/mescaline/>
- (4) <https://journalbipolar disorders.springeropen.com/articles/10.1186/s40345-022-00265-5>
- (5) Halpern, J.H., Sherwood, A.R., Hudson, J.I., Yurgelun-Todd, D., Pope, H.G. Jr. (2005). Psychological and cognitive effects of long-term peyote use among Native Americans. *Biological Psychiatry*, 58(8):624-31. <https://doi.org/10.1016/j.biopsych.2005.06.038>.