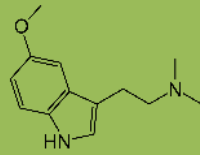


5-MeO-DMT

5-methoxy-N,N-dimethyltryptamine



The Signs of Life
PSYCHOLOGY

Integrating science and the sacred

5-MeO-DMT is a psychedelic of the tryptamine class. It is found in a wide variety of plant species, and also is secreted by the glands of at least one toad species, *bufo alvarius*, the Sonoran Desert toad.

WHAT MAKES 5-MeO-DMT UNIQUE?

- 5-MeO-DMT can evoke mystical experiences and provide subjective effects similar to, yet distinct from, other psychedelics such as psilocybin¹⁰
- 5-MeO-DMT has been shown to produce higher ratings of complete mystical experience, when compared to psilocybin

LEGAL STATUS

- Schedule 9 prohibited substance under the Poisons Standard in Australia.
- Not a controlled substance in Canada, Mexico and Costa Rica

OFF-LABEL INDICATIONS

- Anxiety
- Depression
- Post-traumatic stress disorder
- Substance use disorders¹

POSITIVE EFFECTS

- Alterations to sense of self
- Oceanic boundlessness
- Ego Dissolution
- Time and Space perception distortions
- Euphoria
- Auditory and visual hallucinations¹

The effects of 5-MeO-DMT are dependant on dosage and set and setting, and vary according to route of administration e.g. high doses produce a "full release" of self concept⁸

POTENTIAL RISKS

- Fear/Terror
- Sadness
- Anxiety
- Confusion
- Fatigue
- Paranoia
- Nausea
- Headache
- Vomiting
- Existential crisis
- Cardiovascular crisis
- Acute memory loss
- Acute respiratory changes
- Panic attacks^{1,3}

The effects of cumulative and prolonged 5-MeO-DMT use have yet to be adequately studied.

The research of 5-MeO-DMT for mental health symptoms are experimental, but falls into two categories: **pharmaceutical/biochemical & 5-MeO-DMT-assisted psychotherapy**

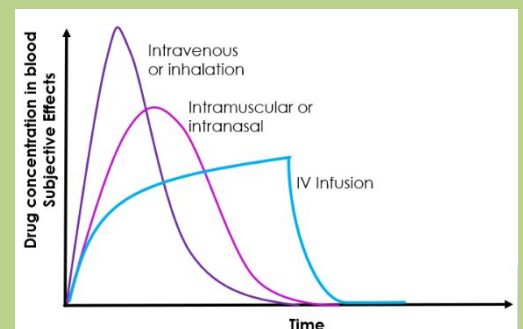
PHARMACEUTICAL/BIOCHEMICAL

- 5-MeO-DMT acts on the 5-HT_{1A} and 5-HT_{2A/2C} receptors, however 5-MeO-DMT appears to have a higher affinity for 5-HT_{1A} which is different among psychedelics
- 5-MeO-DMT also has a high affinity for the 5-HT₇ receptor, which it shares with another tryptamine, DMT
- 5-MeO-DMT, like DMT, is suggested to exert some effects through the sigma-1 receptor which may explain its anti-inflammatory and immunomodulatory potential
- 5-MeO-DMT induced rapid changes in inflammatory biomarkers for 7 days post use
- A single dose of 5-MeO-DMT has been shown to increase proliferation and survivability of neurons¹¹

DOSING

ROUTES OF ADMINISTRATION

- Intramuscular (IM)
- Inhalation (vaporisation)
- Intravenous (IV)
- Intranasal



Intranasal

- High Dose: 10-25 mg
- Onset: 5 min
- Peak: 10-30 min
- Duration: 30-60 min

Inhalation

- High Dose: 8-12 mg
- Onset: 10~ seconds
- Peak: 2-15 min
- Duration: 30 min

Intramuscular (IM)

- High Dose: 6-15 mg
- Onset: 1-6 min
- Peak: 10-30 min
- Duration: 60 min

5-MeO-DMT-ASSISTED PSYCHOTHERAPY

5-MeO-DMT-Assisted Psychotherapy has yet to be studied in any official capacity. However the beneficial effects have been studied without preparation and integration.

- A study on the effects of 5-MeO-DMT found it associated with a decrease in depression and anxiety symptoms. It is theorised that integration in a clinical setting would amplify the therapeutic benefits of the compound.⁹
- Phase 2a study using a nasal spray found a 78% remission rate from depression for up to a week after dosing.⁵

DOSING

Patients should be set up on a gradual dose-escalating sequence, so they have more control over the experience, and are able to self-regulate more effectively during a high dose induce "full release."

SAFETY & TOLERABILITY

- Individuals screened for specific physiological and psychological health criteria
- Dose determines risk profile

Contraindicated conditions:

- Schizophrenia
- Bipolar Disorder
- Borderline Personality Disorder
- Substance Use Disorders
- Advanced cardiovascular conditions
- Tumours in Central Nervous System
- Seizure disorders⁸

1. 5-MeO-DMT: A primer on a potent psychedelic. (2022, March 2). Psychedelic Research in Science & Medicine. <https://www.prism.org.au/5-meo-dmt-blog/>

2. Beckley Psytech Limited. (2022). A Double-Blind, Randomized, Phase 1, First-in-Human, Single Ascending Dose Study to Evaluate the Safety, Tolerability and Pharmacokinetic Profile of Intranasal 5-Methoxy-N,N-dimethyltryptamine (5-MeO-DMT) in Healthy Subjects (Clinical Trial Registration No. NCT05032833). [clinicaltrials.gov. https://clinicaltrials.gov/ct2/show/NCT05032833](https://clinicaltrials.gov/ct2/show/NCT05032833)

3. Ermakova, A. O., Dunbar, F., Rucker, J., & Johnson, M. W. (2022). A narrative synthesis of research with 5-MeO-DMT. *Journal of Psychopharmacology (Oxford, England)*, 36(3), 273–294. <https://doi.org/10.1177/02698811211050543>

4. GH Research Ireland Limited. (2020). A Phase 1 Dose-ranging Study of GH001 in Healthy Volunteers (Clinical Trial Registration No. NCT04640831). [clinicaltrials.gov. https://clinicaltrials.gov/ct2/show/NCT04640831](https://clinicaltrials.gov/ct2/show/NCT04640831)

5. GH Research Ireland Limited. (2021a). A Phase 1/2 Study of GH001 in Patients With Treatment-Resistant Depression (Clinical Trial Registration No. NCT04698603). [clinicaltrials.gov. https://clinicaltrials.gov/ct2/show/NCT04698603](https://clinicaltrials.gov/ct2/show/NCT04698603)

5-MeO-DMT

NON-MEDICAL USES

Dosing and effects are dependent on the route of administration.
5-MeO-DMT is often smoked or insufflated.

DOSING

COMMON STREET NAMES

- 5-MeO
- The God molecule
- 50Methoxy
- The Power
- Toad Venom

PRIMARY EFFECTS

- 5-MeO-DMT appears to occasion mystical-type experiences with enduring positive effects.^{1 8}
- A sense of oneness with the universe, consistent with an experience of 'ego-dissolution' with less visual content than other psychedelics
- Findings suggest that 5-MeO-DMT is used infrequently, predominantly for spiritual exploration, has low potential for addiction, and might have wellbeing benefits in ritual contexts^{9 12}

HOW IS IT USED? (and onset of effects)

- Smoked (onset 30 seconds, peak effects 15 min, up to 40 min)
- Insufflated (onset 5 minutes, peak effects 25 min up to 60 min)⁸

"REACTIVATIONS"

- Reactivation refers to the re-experiencing of some of the effects induced by 5-MeO-DMT intake at some point after the drug's acute effects have worn off.¹²
- Up to 96% of these users report their reactivation as being a positive or neutral experience, and only 3% report their reactivation experiences as being negative.

FACTORS AFFECTING RISK PROFILE

- History of trauma, psychological history
- Relationship with those around at the time
- Unsafe or noncontrolled setting
- Pre-existing health conditions
- Dose, Duration and frequency of use
- Mixing with contraindicated substances (MAOIs, Lithium, SSRIs)⁸

The recreational use of 5-MeO-DMT is still understudied. More studies are needed to verify and expand the current state of science of this compound.

RESEARCH STUDIES

Current and Ongoing

- A Double-Blind, Randomized, Phase 1, First-in-Human, Single Ascending Dose Study to Evaluate the Safety, Tolerability and Pharmacokinetic Profile of Intranasal 5-Methoxy-N,N-dimethyltryptamine (5-MeO-DMT) in Healthy Subjects²

Recently Completed

- (2022) Personality and Drug Use (PDU)⁷
- (2021) A Phase 1/2 Study of GH001 in Patients With Treatment-Resistant Depression⁵
- (2021) A Phase 1 Study to Determine the Pharmacokinetics and Pharmacodynamics of Single and Multiple Inhaled Doses of GH001 in Healthy Volunteers⁶
- (2020) A Phase 1 Dose-ranging Study of GH001 in Healthy Volunteers⁴

- (2019) A single inhalation of vapor from dried toad secretion containing 5-methoxy-N,N-dimethyltryptamine (5-MeO-DMT) in a naturalistic setting is related to sustained enhancement of satisfaction with life, mindfulness-related capacities, and a decrease of psychopathological symptoms

All human studies prior to these are observational.

The first article relating to human use was published in 1997, and was a qualitative field report on 'underground' use and self-experimentation. Since then, 11 other papers have been published. Only 5 of which are original studies, the rest are retrospective surveys.³

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8. Pharmacology and Drug Interactions of 5-MeO-DMT. (n.d.). Retrieved 8 June 2022, from <https://www.spiritpharmacist.com/blog/5MeODMTPharmacology>

9. Uthaug, M. (2019) A single inhalation of vapor from dried toad secretion containing 5-methoxy-N,N-dimethyltryptamine (5-MeO-DMT) in a naturalistic setting is related to sustained enhancement of satisfaction with life, mindfulness-related capacities, and a decrement of psychopathological symptoms. *Psychopharmacology*, 236(9), pp.2653-2666.

10. Barsuglia J et al., 2018. Intensity of mystical experiences occasioned by 5-MeO-DMT and comparison with a prior psilocybin study. *Frontiers in psychology*, 9, p.2459.

11. Lima da Cruz, R.V., Moulin, T.C., Petiz, L.L. and Leão, R.N., 2018. A single dose of 5-MeO-DMT stimulates cell proliferation, neuronal survivability, morphological and functional changes in adult mice ventral dentate gyrus. *Frontiers in molecular neuroscience*, 11, p.312.