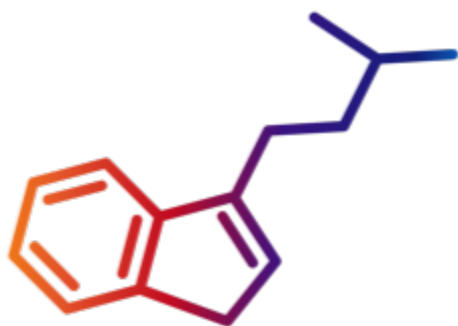


The Ultimate Guide to DMT

The Ultimate Guide to
(The Spirit Molecule)



N,N-Dimethyltryptamine

$C_{12}H_{16}N_2$

Table of Contents

1. 01. [Overview](#)
2. 02. [Experience](#)
3. 03. [Effects](#)
4. 04. [Benefits & Risks](#)
5. 05. [Therapeutic Use](#)
6. 06. [Personal Growth](#)
7. 07. [Legality](#)
8. 08. [Myths](#)
9. 09. [History & Stats](#)
10. 10. [FAQ](#)
11. 11. [Footnotes](#)

Disclaimer: DMT is a potentially illegal substance, and we do not encourage or condone the use of this substance where it is against the law. However, we accept that illegal drug use occurs, and believe that offering responsible harm reduction information is imperative to keeping people safe. For that reason, this guide is designed to ensure the safety of those who decide to use the substance.

DMT, or N,N-Dimethyltryptamine, is a psychedelic chemical that occurs naturally in both plants and animals from underwater organisms to land mammals. DMT is also the active hallucinogenic compound in ayahuasca, which is a tea brewed from the shrub *Psychotria viridis* used for ritual purposes by indigenous people in the Amazon. See [our ayahuasca guide](#) for more on this psychedelic brew.

DMT can also be ingested in crystal form, where it is often smoked in a pipe or bong, as well as vaporized. Taken in this manner, it produces a powerful but short-lasting hallucinogenic state that is considered one of the most intense psychedelic experiences in existence.

It can also retain its psychoactive properties in other forms, including psilocybin (4-PO-HO-DMT, found in [psilocybin mushrooms](#)).

DMT is often confused with 5-MeO-DMT, or 5-Methoxy-N,N-Dimethyltryptamine, which is also a hallucinogenic compound. 5-MeO-DMT looks exactly like DMT on both a macro and micro level, but the latter has a few extra atoms attached, which is enough to change the experience. While the DMT experience tends to be highly visual, 5-MeO-DMT is more like a perspective shift. For the purposes of this guide, we'll focus on DMT.

Many factors contribute to the DMT experience, including dose, mindset, setting, and your body's personal chemistry. With that in mind, each individual journey will be unique to the person, time, and place, and there's no way to predict exactly what will happen. That being said, DMT does induce some common experiences and effects that can help you prepare for your journey.

What to expect

DMT-induced psychedelic experiences occur when a dose of 0.2 mg/kg or higher is ingested. When smoked, DMT is a very fast-acting substance with peak subjective experience occurring around 2 minutes after ingestion, and completely resolving within 15 to 20 minutes.^[1] When taken as an ayahuasca brew, the effects can take up to an hour to appear, and may last for several hours.

Mixing DMT into the liquids found in vape pens is a newer form of ingestion. The benefit of this is the ease of consumption. And because the intensity of DMT depends on the dose, vaping it can cause hallucinations that are as or more intense than consuming it in more traditional ways. This can be a good or a bad thing. However, some believe that vaping DMT [isn't the safest way to consume the drug](#) and should be approached with caution.

Low doses (0.05 to 0.1 mg/kg) of DMT primarily affect physical and emotional states with few to no perceptual hallucinations. Higher doses typically produce rapid kaleidoscopic images full of intensely "techno-colored" abstract and representational displays. Auditory hallucinations are less common and usually aren't a very prominent feature of the experience. Some people experience alternating sensations of hot and cold.

Passing states of anxiety are common, though so are euphoric states. Somewhat paradoxically, these two states can be experienced simultaneously. Out-of-body experiences, or dissociation of awareness from the physical body, is very common with DMT at higher doses. Many people consider this a hallmark of the DMT experience.

In his 2000 book, [The Spirit Molecule](#), psychedelic researcher and psychologist Rick Strassman describes studies in which about half of the volunteers entered "freestanding, independent levels of existence" during a DMT trip, or psychological planes where "intelligent beings", "entities", "aliens", "guides" and "helpers" were found. Ethnobotanist and psychonaut Terrence McKenna called these beings "machine elves." According to Strassman's work, they take the form of "clowns, reptiles, mantises, bees, spiders, cacti and stick figures." Reports of these kinds of beings seem to be unique to DMT trips.

For more in-depth descriptions of DMT's effects, see [Tikhal: The Continuation](#) by Alexander and Ann Shulgin.

Optimize your microdosing efforts

Do you worry about **taking too much**, **not measuring correctly**, or **losing control** of your experience?

Enroll in our online microdosing course to have a **safe, effective, and valuable microdosing experience**.

Pharmacology

Dimethyltryptamine is primarily a serotonin (5-HT) receptor agonist. Like many other chemicals in its class, DMT's psychedelic actions can mostly be attributed to its effects on the 5-HT_{2A} receptor. It does affect many other receptor types (including dopamine and sigma receptors), but the consequences of these interactions are not well understood.^[2]

In a study that administered low, medium, or high doses of DMT to 12 volunteers, the psychedelic threshold for DMT was found to be 0.2 mg/kg. At this level, most biological effects were detectably altered. Adrenocorticotropin hormone, beta-endorphin, prolactin, growth hormone (GH) and cortisol were all elevated. Pupil diameter, heart rate, and blood pressure all peaked within 2 minutes of administration, as did subjective experiences.

A later trial found that the body does not build a tolerance to DMT, meaning there's no need to take more to repeat the same effects, unlike other psychedelics such as LSD and psilocybin.^[3] ^[4]

Toxicity

The exact toxic profile of DMT is unknown, but studies in rodents suggest that a lethal dose in humans would be extremely high—more than 20 times the typical dose given during an ayahuasca ceremony.

When a group of experienced users were asked to rate its safety, 55% said DMT is “very safe” and 38% said “quite safe”.^[5] The main risks they reported were a “bad trip” (51%), which is a considerably higher risk with DMT compared with other classic psychedelics.

Interactions with other drugs

DMT significantly affects the serotonin system and should not be taken simultaneously with any of the following substances:

- SSRI's (any selective serotonin reuptake inhibitor, like Prozac)
- Antihypertensives (high blood pressure medicine)
- Appetite suppressants (diet pills)
- Medication for asthma, bronchitis, or other breathing problems; antihistamines; medicines for colds, sinus problems, hay fever, or allergies (any drug containing dextromethorphan/DXM or with DM, DX or Tuss in its name)
- CNS (central nervous system) depressants (xanax, ativan, etc)
- Vasodilators
- Antipsychotics
- Barbiturates
- Alcohol

Illegal or recreational drugs that are dangerous to combine with DMT include:

- Cocaine
- Amphetamines (meth-, dex-, amphetamine), ephedrine, MDMA (Ecstasy), MDA, MDEA, PMA
- Opiates (heroin, morphine, codeine, and especially opium)
- Dextromethorphan (DXM)
- Nutmeg

Illegal or recreational drugs that can be dangerous to combine with DMT include:

- Mescaline (any phenethylamine)
- Barbiturates
- Alcohol
- Kratom
- Kava
- 5-MEO-DMT

Potential Benefits

DMT is actually found [in the human brain](#), so our bodies are accustomed to handling this molecule. In fact, research suggests that DMT has an [important role](#) in various processes taking place in the central and peripheral nervous systems. DMT trips are so short-lived because our bodies are so good at metabolizing it. All of this makes DMT a fairly safe compound to ingest—and helps us understand the potential benefits of a DMT trip.

For centuries, indigenous people have used DMT for healing and change, and, more recently, science is backing this up. Johns Hopkins researchers recently [conducted a survey](#) into the anti-depressant qualities of 5-MeO-DMT and found that use of the compound resulted in huge improvements in well-being—among 362 adults, around 80% of respondents reported improvements in anxiety and depression. Another study, conducted with rats, found that [microdosing DMT](#) also led to positive improvements with anxiety and depression.

All of this could have something to do with DMT's propensity to creating god- or spirit-like hallucinations. After all, there's a reason Rick Strassman called DMT "the spirit molecule"—and a reason the name has stuck. With many psychedelics, studies show that the more a person experiences certain "mystical" qualities during a trip, the more healing they receive, it's believed that DMT's ability to make users "see God" could be the key to its healing powers.

However, very little systematic research exists on DMT and spiritual experiences. This has caused some to [question the direction of the relationship](#) between psychedelic use and spirituality. Does DMT aid in spiritual growth, or do people who are inclined to seek spiritual growth end up taking DMT?

From what we can tell, it's probably a bit of both.

Risks

However therapeutic DMT may be, it is still a highly potent psychedelic that does cause a range of psychological and physiological changes.

The most common physiological side-effects include elevated blood pressure and heart rate, dizziness, lack of coordination, nausea (if DMT is taken as part of ayahuasca), shivering, and potential loss of consciousness. This means that anyone with a heart condition should take high

precautions if smoking DMT. Other risks involved here concern the logistics of ingestion: DMT is best enjoyed in a comfortable environment where there is little risk of injury.

As for the psychological effects, DMT can cause intense open-eyed hallucinations, which can completely alter one's perception of the environment. This can result in heavy confusion, which may escalate into anxiety or panic. The closed-eyed visualizations can also be overwhelming and may cause a feeling of discomfort, fear or, at the extreme, psychological trauma. In some users, DMT induces a feeling of separation between the mind/soul and the body. Losing this connection can catalyze an incredibly powerful and profound shift in consciousness, but it can also produce symptoms of depersonalization.

Lastly, the cases where it really might be potentially harmful is when there is interaction with other drugs or substances. Refer to the Pharmacology section of this guide for more information on what to avoid.

To ensure your safety, it's to always have a sober sitter present. We can't stress the importance of this enough.

While the therapeutic value of DMT alone has not been explored to the extent that other psychedelic drugs have, ayahuasca has long been used traditionally to treat various psychological maladies, including mood disorders and addiction. Ayahuasca has seen an increase in use in the modern world as a potential treatment of [depression](#) and [addiction](#). As research into the efficacy of psychedelics in general increases, we can expect to see more studies that specifically look at DMT.

Optimize your microdosing efforts

Do you worry about **taking too much, not measuring correctly, or losing control** of your experience?

Enroll in our online microdosing course to have a **safe, effective, and valuable microdosing experience**.

While not enough research exists to suggest that DMT is an access point to higher personal growth, anecdotal reports suggest that greater self-awareness and spiritual connection to the world can be gained from use of the molecule. Just as ayahuasca ceremonies can provide new perspectives on inner emotional realities to people with mental and addictive disorders, DMT can be used to achieve new perspectives in one's spiritual life.

Many people report that DMT gives them a connection to their subconscious, allowing them to see any issues and mental blocks they've been experiencing from a new vantage point. People often report a sense of detachment from their emotions and how they identify with them as well.

While jarring, the dissolution of ego and "self" is often reported to be one of the most powerful personal insights people experience during a DMT trip. The idea that "you" are not who you think you are is difficult to grasp for many, especially in Western society where the individual is held up as the paragon of modern civilization. A trip that includes a dissolution of one's identity, sometimes dubbed "ego death," brings this radical new perspective to the user. Major shifts in perspective like this are often thought to be the initial catalysts for subsequent spiritual and personal growth.

DMT was made illegal throughout the world in 1971 with the creation of the [United Nations Convention on Psychotropic Substances](#). Legality and enforcement of the law today usually depends on a government's awareness of the existence of DMT. Plants that contain DMT are not illegal per se, but as soon as the DMT is extracted, it becomes an illicit substance. Additionally, if the compound is used as an ingredient in an ayahuasca brew, [there are a few exceptions](#) that have been

granted to certain groups for religious purposes.

“DMT is produced in the pineal gland and released when you die/have a near-death experience”

For years, there has been a raging debate about whether or not DMT is a “naturally occurring” compound. It had been found in a number of plants and animals and, in 1965, German researchers were able to isolate it in human blood and urine,^[6] though the credibility of these results have been criticized. Subsequent studies, however, have detected naturally-occurring DMT in human blood, urine, feces, kidney tissue, lung tissue, and spinal fluid. In 2014, a study found that DMT aides the immune response in some cells through simga-1 receptors and may play a role in tissue regeneration.^[7]

The true debate, however, is whether or not DMT is produced in the brain. Some new evidence suggests that it *might* be. In 2013, scientists isolated DMT from the rat pineal gland, proving that the mammalian brain is at least capable of producing the substance.^[8] Whether or not DMT is actually produced in the human brain remains unknown.

Rick Strassman is sometimes accused of throwing false fuel on the fire of this debate in his book [The Spirit Molecule](#), but he really isn't at fault. As he [later put it](#):

“I did my best in the DMT book to differentiate between what is known, and what I was conjecturing about (based upon what is known), regarding certain aspects of DMT dynamics. However, it's amazing how ineffective my efforts seem to have been. So many people write me, or write elsewhere, about DMT, and the pineal, assuming that the things I conjecture about are true. When I was writing the book, I thought I was clear enough, and repeating myself would have gotten tedious.

“We don't know whether DMT is made in the pineal. I muster a lot of circumstantial evidence supporting a reason to look long and hard at the pineal, but we do not yet know. There are data suggesting urinary DMT rises in psychotic patients when their psychosis is worse. However, we don't know whether DMT rises during dreams, meditation, near-death, death, birth or any other endogenous altered state.”

Optimize your microdosing efforts

Do you worry about **taking too much**, **not measuring correctly**, or **losing control** of your experience?

Enroll in our online microdosing course to have a **safe**, **effective**, and **valuable microdosing experience**.

Traditional use of DMT dates back as far back as the late 8th century when it was used as an ingredient in various psychoactive snuffs. It occurs naturally in various plants, including the seeds of *A. peregrina*, which were the main ingredient of cohoba snuff. Other traditional preparations are made using DMT-containing plants, including the vilca and [ayahuasca](#) brews.

The chemist Richard Helmuth Fredrick Manske is credited as the first to synthesize dimethyltryptamine in 1931. But it was Dr. Stephen Szara who, inspired by visiting South American religious ceremonies, first demonstrated in 1956 that the drug induces hallucinations, illusions, distortions of spatial perception and body image, disturbances of thoughts, and euphoria in humans.

The first wave of clinical research followed in the 1950s and 1960s, gaining momentum with the discovery in 1965 that DMT can be found in the blood and urine of humans. Following the passage of the Controlled Substances Act in 1970, research into psychedelics waned in both the United States and Europe for many years.

Rick Strassman pioneered contemporary research into psychedelics in the 1990s with the belief that their profound effect on consciousness warranted further exploration. He published a number of landmark studies including detailed dose-response experiments using the Hallucinogen Rating Scale to measure subjective experiences. Strassman later published [The Spirit Molecule](#) in 2000, widely considered a landmark book on DMT. This new interest continued with the publication of [Tihkal](#), by Alexander and Ann Shulgin, which details the use and effects of tryptamines, a class of drugs that includes DMT.

The Global Drug Survey's 2012 report found that among 22,000 respondents, the lifetime use rate of DMT was about 9%. The most common route of administration reported in the survey was smoking the substance as an herbal mixture (92%), as opposed to consuming as an ayahuasca brew, for example.

An Australian study conducted in 2010 that surveyed 121 people who had previously experienced DMT found that smoking DMT was by far the most common route of administration (98.3%), with a much smaller proportion reporting use of ayahuasca (30.6%). The reasons given for trying DMT were out of general interest in hallucinogens or curiosity about its effects, while almost one-third of respondents cited the possible psychotherapeutic benefits of the drug. An increase in psychospiritual insight was the most commonly reported positive effect of both smoked DMT and ayahuasca.^[9]

Information from Winstock et al, 2013 ^[10]

Can DMT be detected in a drug test?

Freebase dimethyltryptamine can be extracted from various plants in several ways. The chemistry behind this is reasonably simple, but the extraction process itself should be approached with caution and carried out with preciseness in order to get high-quality results.

The simplest method to extract DMT involves dissolving the ground-up plant matter in a base solution, most commonly sodium hydroxide (NaOH). The molecules of DMT are then released and need to be separated from the remainder. This is done with a non-polar solvent such as naphtha or with a pure alkane. These chemicals will attract the non-polar DMT molecules and float them up to the top, forming a separate layer. All that's left to do is to siphon the DMT-containing solution out, freeze it, filter it through a coffee filter and dry it out in order to get the pure crystal.

An additional step can be taken to further refine the DMT. This is called recrystallization, and it involves creating a solution of the powder yielded from extraction and the non-polar solvent. When DMT is dissolved, it should be frozen and then filtered and dried again. This can be repeated for even greater refinement.

There are more complex ways to extract freebase DMT and, generally speaking, the more work they take, the better and purer the yield will be. You can find many methods described in great detail [here](#). We recommend [Noman's tek](#) as the best for the complexity to yield ratio.

Can DMT be detected in a drug test?

DMT is [not included](#) in a typical drug screen, nor is it included in any known extensive drug

screens. It is also not chemically similar to substances that are typically tested for, so the likelihood of triggering a false positive for other drugs is near zero.

Can I test my DMT to see if it's safe to take?

Testing your DMT is always good practice even when you trust your supplier. [Reagent test kits from Bunk Police](#) can identify hundreds of adulterants and substitutes, offering peace of mind and potentially saving your life. Simply place a tiny amount of DMT into a sterile test tube or onto a sterile white ceramic surface and add a few drops of the reagent. Then check the color change (or lack thereof) against the supplied spectrum booklet.

How do you take DMT?

DMT can be taken in many forms, but most typically it is either taken in the [ayahuasca brew](#) or smoked as a powder. You can read a detailed guide to smoking it [here](#). The powder form will produce a short-lasting but intense trip, and the ayahuasca brew will produce a long-lasting experience.

Is DMT safe?

On its own, DMT is quite safe to ingest in reasonable dosages. Any potential risks come from interaction with other substances or taking it in an unsuitable setting.

Can I microdose with DMT?

There is not much information about DMT microdosing, as microdosing is most commonly performed with LSD and psilocybin. However, because DMT is a classic psychedelic in the same family as LSD and psilocybin, it can be microdosed in a similar way. Check out our detailed guide on [microdosing DMT](#) for more information.

How long does DMT last?

The effects of DMT last about 5-30 minutes when smoked. If taken in the ayahuasca form, the experience can last anywhere between two and 15 hours, with four to six hours being the average duration for most people.

Can DMT give me a bad trip?

Like most psychedelics, DMT is a very powerful drug and has the potential to be very unpleasant if not treated with respect. Follow the [6S's of psychedelic use](#) to minimize the risks of a bad experience. Start with a low dose if it's your first time.

Will I always achieve a breakthrough?

Not necessarily, especially if taken as an [ayahuasca](#) brew. However, DMT is a powerful psychedelic. When smoked, it is likely to produce out-of-body experiences and extreme changes in perception.

Is DMT produced naturally in the body?

This is an area of some controversy, but there is evidence to suggest that DMT is present in animal physiology. [See here for more info.](#)

How long does DMT stay in your body?

DMT does not stay in your system for a long time due to the enzyme monoamine oxidase, which breaks it down quickly. However, the consumption of the MAOI can increase the duration of DMT's effects as well as the longevity of its existence in your system.

Can I mix DMT with other drugs?

DMT should not be mixed with Tramadol, as it can lead to [serotonin syndrome](#). Be cautious if mixing with cannabis, amphetamines or cocaine. [Click here](#) for a detailed chart of safe drug combinations.

Does DMT degrade?

Over time, DMT can oxidize and become less potent. However, not everyone agrees that this is true.

Can I become tolerant to DMT?

DMT tolerance is considerably less than the other classic psychedelics. Wait an hour or two between doses for tolerance to return to normal. Similarly, ayahuasca does not produce tolerance.

Where is DMT legal?

DMT is a Schedule I drug under the United Nations' Convention on Psychotropic Substances, which means all UN members must prohibit the substance. However, Ayahuasca is legal in Peru and Brazil.

[1] Strassman, R. J. (1995). Human psychopharmacology of N, N-dimethyltryptamine. *Behavioural Brain Research*, 73(1), 121–124.

[2] Ray, T. S. (2010). Psychedelics and the Human Receptorome. *PLOS ONE*, 5(2), e9019.

[3] Strassman, R. J. (1995). Human psychopharmacology of N, N-dimethyltryptamine. *Behavioural Brain Research*, 73(1), 121–124.

[4] Gable, R. S. (2007). Risk assessment of ritual use of oral dimethyltryptamine (DMT) and harmala alkaloids. *Addiction*, 102(1), 24–34.

[5] Cakic, V., Potkonyak, J., & Marshall, A. (2010). Dimethyltryptamine (DMT): Subjective effects and patterns of use among Australian recreational users. *Drug and Alcohol Dependence*, 111(1), 30–37.

[6] Franzen, F., & Gross, H. (1965). Tryptamine, N,N-Dimethyltryptamine, N,N-Dimethyl-5-hydroxytryptamine and 5-Methoxytryptamine in Human Blood and Urine. *Nature*, 206(4988), 1052–1052.

[7] Szabo et al (2014) Psychedelic DMT and 5MeO-DMT modulate innate and adaptive inflammatory responses through the sigma-1 receptor of human monocyte-derived dendritic cells. *PLoS One*, 29:9(8).

[8] Barker, S. A., Borjigin, J., Lomnicka, I., & Strassman, R. (2013). LC/MS/MS analysis of the endogenous dimethyltryptamine hallucinogens, their precursors, and major metabolites in rat

pineal gland microdialysate. *Biomedical Chromatography*, 27(12), 1690–1700.

[9] Cakic, V., Potkonyak, J., & Marshall, A. (2010). Dimethyltryptamine (DMT): Subjective effects and patterns of use among Australian recreational users. *Drug and Alcohol Dependence*, 111(1), 30–37.

[10] Winstock, A. R., Kaar, S., & Borschmann, R. (2013). Dimethyltryptamine (DMT): prevalence, user characteristics and abuse liability in a large global sample. *Journal of Psychopharmacology*

Always know what's happening in psychedelics

We'll send you selections of our most popular content, plus updates on research, live events, new articles, free educational resources and exclusive discounts.