



Unlimited Sciences

AYAHUASCA GUIDE



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What is ayahuasca?

What does the word *ayahuasca* mean?

Ayahuasca is a psychoactive brew prepared by boiling the stems of the *Banisteriopsis caapi* vine with the leaves of the *Psychotria viridis* or *Diplopterys cabrerana* plant and other botanical matter native to the Amazon basin. Ayahuasca has been utilized by Upper Amazonian tribes for centuries as sacred medicine owing to its ability to produce altered states of consciousness. This psychedelic brew has many names, including *ayahuasca* in Peru, *yagé* in Colombia and Ecuador, and *caapi* in Brazil. Ayahuasca is also referred to as "honi zuma," in Colombia, and among the Caxinaua Indians (Peru, Brazil), it goes by the name "honi." In Ecuador, particularly within the Achuar and Shuar ethnic groups, the term "natem" is often used. The Portuguese transcription of ayahuasca is recognized as "hoasca" (or "oasca"), a name also acknowledged in Brazil.¹

Renowned anthropologist Luis Eduardo Luna recorded over 70 different indigenous names for these preparations,² but the most commonly known word to describe this brew, ayahuasca, translates to “**vine of the soul**”, and is derived from the Quechua-language roots, aya, meaning death, dead person, spirit, soul, or ancestor, and huasca, meaning rope or vine. The name ayahuasca therefore denotes the brew's perceived supernatural soul-transporting virtues that have garnered deep cultural significance across dozens of ethnic groups like the ancient Inca.³

How old is the use of ayahuasca?

Anthropological reports estimate ayahuasca has been used by indigenous communities for over 5,000 years, with direct evidence dating back at least 1,000 years.⁴

What is ayahuasca used for?

To many who participate in ayahuasca ceremonies, ayahuasca is considered to be an entheogenic and inspirited plant being with animacy and agency, seen as a being with its own spirit and ability to create and connect with others. Along the same vein, many cultures consider the world to be inhabited by anthropomorphic spirits, and these cultures believe ayahuasca facilitates communication with these spirits.⁵

Today, ayahuasca is a traditional medicine used by approximately **one hundred indigenous groups across the Amazon Basin**, including those dispersed in Colombia,

Ecuador, Peru, Bolivia, Brazil, and Venezuela. Ayahuasca has remained a central part of indigenous culture and is used in medicine, religious ceremonies, and rites of passage.⁶

How Ayahuasca works in the body

Scientific study attributes ayahuasca's mind-altering properties primarily to the presence of the potent serotonergic psychedelic N,N-Dimethyltryptamine (DMT) in tandem with β -carboline alkaloids called monoamine oxidase inhibitors (MAO-inhibitors) that render the DMT orally bioavailable when consumed as Ayahuasca tea. The MAOIs allow DMT to reach the brain by preventing it from being broken down before crossing the blood-brain barrier, enabling intense visions, psychedelia, and mystical states.⁷

Ayahuasca's Effects

Ayahuasca has long been revered by Native Americans as the most potent medicinal plant on the planet. They credit the concoction derived from this "magical" liana with the power to instruct and heal individuals, with some suggesting it facilitates a connection with the universe and spiritual entities. In recent years, the utilization of ayahuasca has transcended South America, reaching Europe, the United States, and beyond, prompting diverse biomedical investigations. While these studies offer optimism regarding its therapeutic capabilities, they also raise apprehensions about potential toxicity.⁸

Subjective Effects

The consumption of ayahuasca is associated with a variety of subjective effects, including visual hallucinations, altered sensory perception, mystical experiences, and euphoria. Ingestion of ayahuasca may also give rise to experiences of purging, both physical (e.g., vomiting, diarrhea) and emotional (e.g., therapeutic release of emotions). Although different indigenous groups have developed complex variations of ayahuasca to modify or potentiate the effects of ayahuasca, infusing up to 90 different plants into the brew, the most commonly used variations combine the roots of the *B. caapi* with the leaves of *P. viridis* or *D. cabrerana*.⁹

Pharmacological Mechanisms of Action

Ayahuasca is unique in its pharmacological activity, which is dependent on a synergistic interaction between active alkaloids in both plants, a currently well-known mechanism in which the monoamine oxidase (MAO) inhibitory action of harmala alkaloids allow the

hallucinogenic effects of metabolically labile DMT.¹⁰ The main compounds of the preparation are β -carboline alkaloids (harmala alkaloids-harmine, harmaline and tetrahydroharmine) and N, N-dimethyltryptamine (DMT). Pharmacologically, DMT binds and modulates serotonergic receptors throughout the central and peripheral nervous systems, triggering widespread entheogenic and psychotropic changes perceptually once ingested. Subjective experiential dimensions of onset involve physical purging or vomiting before dynamic visions begin, followed by otherworldly scenes perceived as staggeringly sentient yet fantastical, rich in elaborate detail yet undeniably supernatural.¹¹

What to expect from visions induced by ayahuasca

Phenomenologically, visions display alternately or concomitantly aqueous, botanical, zoological, and architectural motifs in heightened symbolic expressionistic fashion. Visions unfold with subconscious depths of self-insight, environmental interconnectedness, cosmic revelation, numinous mysticism, and sacredness universally described by indigenous groups variously as divinely transcendental, depending on tribal cosmologies. Psychopharmacology suggests ayahuasca's subjective effects derive significantly from DMT binding serotonin transporters and sigma-1 receptors, augmenting synaptic plasticity by heightening neurogenesis.¹²

Experiential dimensions include a perceivable prolongation of time, confrontation with personal issues, cathartic release of emotions, and renewed mindfulness towards relationships or constructive life changes after the acute effects subside.¹³ By bridging normal cognitive constraints, ayahuasca permits a temporary interconnectedness that lends perspective for addressing challenges confronted or changes sought once sobriety returns.

How long does ayahuasca last?

The effects of ayahuasca generally appear around 40 minutes after ingestion, peak at 1-2 hours following ingestion, and then fade after approximately 4 - 6 hours.¹⁴ In a study by Callaway, the enlargement of the pupil diameter started after 40 min and persisted even after 6 hours.¹⁵ The cardiovascular effect of ayahuasca consisted in an increase of heart rate (maximum after 20 min) and increase of blood pressure (maximum after 40 min), which then decreased to normal values. The neuroendocrine effect of ayahuasca was found in a significant increase of growth hormone, prolactin and cortisol, to their peak plasma concentrations occurring between 1–2 h after ingestion.

Origins & Traditional Use

The origins of ayahuasca can be traced back to the Amazon rainforest, where indigenous tribes such as the Quechua, Shipibo,¹⁶ and Asháninka¹⁷ have used this powerful plant medicine for centuries in their religious and healing practices.¹⁸ The traditional use of ayahuasca is deeply rooted in the spiritual and shamanic traditions of these tribes, who believe that the brew allows them to connect with the spirit world, gain insights, and heal both physical and mental ailments.

The preparation and consumption of ayahuasca is surrounded by ritual and ceremony, with experienced shamans guiding the process. The brew is typically made by combining the bark of *Banisteriopsis caapi* with leaves from *Psychotria viridis*. The specific ingredients and methods of preparation vary among different indigenous tribes, each with its own unique traditions and practices.¹⁹ **More than 100 different plants can serve as sources of β -carbolines and DMT**, which are the active alkaloids of this decoction, and therefore it is important to know the most accurate composition of the decoction, especially when studying the pharmacology of this plant.²⁰ For example, *Banisteriopsis caapi*, *Brugmansia suaveolens*, and *Nicotiana tabacum* are the principal hallucinogens used by the Shuar and related ethnic groups in Amazonian Ecuador and Peru.²¹ The 4 most used plants for the preparation of ayahuasca decoction include *P. viridis*, *B. caapi*, *M. hostilis*, and *P. harmala*.²²

The use of ayahuasca is considered a sacred and deeply spiritual practice among these indigenous communities, and it is often used for purposes such as healing, divination, and spiritual growth. The traditional understanding of ayahuasca is grounded in the interconnectedness of all living beings and the belief that plant medicine has the power to bring about profound healing and transformation.²³ The consumption of ayahuasca is often done in ceremonial settings, with participants sitting in a circle and drinking the brew under the guidance of a shaman or ayahuasquero/ayahuascquera, who leads the ceremony and facilitates the spiritual journey.

Concomitant ritual musical performances like ceremonial "icaros" chanting by maestro/maestra shamans invariably guide participants' profound vision quests during ayahuasca's acute psychoactive phase seeking overall collective spiritual catharsis for entire tribes practicing this spiritual sacrament since pre-Columbian antiquity by melding native jungle botanicals with metaphysical beliefs—a syncretic practice Andean & coastal tribes still honor today through community-binding ceremonies.²⁴

Ayahuasca in the 20th Century

Since the 1930s, beyond its traditional shamanic use, ayahuasca has found a place in syncretic religious movements that emerged in Brazil. The first of these was established by R.I. Serra, who, after acquiring knowledge of ayahuasca from indigenous communities during his jungle sojourn, returned to civilization and founded the Santo Daime religion, marking a fusion of Christian beliefs with alternative healing and shamanic practices. In 1945, Barquinha separated from Santo Daime, giving rise to the União do Vegetal (UDV), a Brazilian-origin religious society, in 1961. Following R.I. Serra's death in 1971, Santo Daime experienced factional divisions.²⁵

During the 1980s, syncretistic religions gained prominence in Brazil, extending their influence abroad to countries like the Netherlands, the USA, and others.²⁶ The phenomenon of "ayahuasca tourism" emerged at the close of the twentieth century, signifying the globalization of ayahuasca and its adoption across Asia.^{27 28} This development has spurred debates about the legal status of N,N-dimethyltryptamine (DMT), a controlled substance in many countries, making its production, purchase, possession, and distribution illegal.²⁹ Notably, the psychoactive effects of ayahuasca hinge on a specific combination of its primary plant components, a discovery made independently of modern scientific research.

Ayahuasca's Cultural Role

In Indigenous communities

- Indigenous communities have been using ayahuasca for centuries as a tool for spiritual and healing practices. Indigenous healers, known as shamans, ayahuasqueros/ayahuasqueras, or curanderos,³⁰ play a crucial role in administering ayahuasca ceremonies and guiding individuals through their transformative journeys.
- In addition to its significance in spiritual and healing practices, ayahuasca also plays a central role in the social and cultural fabric of indigenous communities.³¹ The brew often serves as a means of cultural preservation and transmission of traditional knowledge, as it is involved in communal rituals and ceremonies that reinforce the collective identity and values of the community. Furthermore, the use of ayahuasca is intrinsically linked to the ecological and environmental knowledge of indigenous peoples, as the plants used in its preparation are sourced from the rich biodiversity of the Amazon rainforest.

- The deep-rooted connection between ayahuasca and indigenous cultures underscores the complex interplay between spiritual beliefs, traditional knowledge, and environmental stewardship. This multifaceted relationship highlights the importance of understanding and respecting the cultural context and indigenous perspectives surrounding the use of ayahuasca. The use of ayahuasca in indigenous cultures extends beyond its psychoactive properties, encompassing a holistic approach to well-being that integrates the spiritual, physical, and environmental aspects of life. Through the guidance of experienced healers, individuals partake in ayahuasca ceremonies as a means of addressing not only personal afflictions but also communal challenges, reinforcing the interconnectedness of the community with the natural world.³²
- In the current global context, there has been a growing interest in the therapeutic potential of ayahuasca from a Western medical perspective. Researchers have conducted studies to explore its effects on mental health conditions such as depression, anxiety, and post-traumatic stress disorder. However, it is crucial to recognize that the indigenous use of ayahuasca is deeply rooted in a complex web of cultural, spiritual, and environmental elements that cannot be disentangled from the mere examination of its chemical composition or isolated pharmacological effects. This underscores the necessity of upholding ethical considerations and engaging in meaningful dialogue with indigenous communities to ensure that any external interest in ayahuasca aligns with their values and respects their rights.^{33 34}

Religious use

Ayahuasca is a sacrament used in the religious ceremonies of various indigenous and syncretic religious groups in the Amazon basin, including the following:

- Santo Daime - The Santo Daime religion, originating in Brazil, incorporates ayahuasca into its religious rituals and ceremonies, considering it a sacred medicine for spiritual healing and revelation.
- União do Vegetal - UDV is another Brazilian religious organization that uses ayahuasca as a sacrament in its religious practices. The UDV considers ayahuasca a means for spiritual development and communion with the divine.
- Native Amazonian Traditions - Various indigenous tribes in the Amazon rainforest have a long history of using ayahuasca in traditional shamanic and spiritual practices as a way to connect with nature and the spirit world.
- Barquinha - Barquinha is a syncretic Brazilian religion that incorporates elements of Christianity and indigenous beliefs and also uses ayahuasca in its religious ceremonies.³⁵

These are just a few examples of the different religions that use ayahuasca as a central part of their spiritual and religious practices. Each tradition has its own unique approach to incorporating the use of ayahuasca into its religious rituals and beliefs.

Dosage

Ayahuasca is a preparation of different plants made with the *Banisteriopsis caapi* vine and the leaves of *Psychotria viridis*, and the preparation of ayahuasca varies significantly depending on the materials used. The vine is usually crushed or pulverized and cooked together with the leaves until the desired amount and concentration is obtained.

Ayahuasca is usually dosed or administered in varying amounts, depending on the potency or concentration of the brew, which is usually known by the healer, shaman, curandero or group who brewed it. The concentrations of alkaloids in ayahuasca vary widely. However, DMT causes intense hallucinogenic effects in humans at doses above 0.2 mg/kg. DMT in ayahuasca comes mainly from *P. viridis* and its concentration ranges from 0.1% to 0.66% in dry matter.³⁶

Customary dosages depend on tradition. In the Santo Daime doses tend to be between 50 and 100 ml, among the Shuar from 20 to 30 ml, in the UDV from 100 to 200 ml. In ayahuasca ceremonies, two or three doses are usually consumed, distributed over the multi-hour session.³⁷

Ayahuasca is considered **dose dependent** (as one increases dosage, subjective effects may be more pronounced). In a study using a standard dose of ayahuasca,³⁸ when DMT dose was 0.5, 0.75 and 12 mg/kg, but using different respondents (71.5 kg, range 66–85), dose-dependent effects were observed. Initial somatic manifestations began to appear after 15 to 30 min after the administration of the drink, psychological manifestations after 30 to 60 min, and both somatic and psychological effects of ayahuasca reach a peak between 60 and 120 min. Then they gradually decrease and disappear completely about 240 min after the ingestion.

Current ayahuasca use for personal growth

In recent decades, people from all over the world have traveled to the Amazon to experience the profound psychological and emotional effects of ayahuasca. No longer limited to indigenous ritual use, ayahuasca has become a popular tool for personal growth and development.

Many who feel stunted in conventional Western therapeutic approaches are now seeking deeper transformation, self-discovery, or overcoming trauma through intense

psychedelic exploration. Retreat centers catering to these needs have popped up across Peru, Brazil, and other South American countries where ayahuasca remains legal.³⁹ People come seeking mystical experiences, hoping vivid visions can reveal subconscious blockages, desires, and anxieties that cue breakthroughs unlocking a renewed sense of self once sober reflection takes hold.

While recreational interest also exists, many seek ayahuasca to address mental and physical health conditions. They believe ingesting this psychoactive tea under safe supervision may succeed where years of counseling, self-help strategies, or medication have failed before.

Ethical considerations regarding Ayahuasca use

In the context of ayahuasca use, ethical considerations play a crucial role in ensuring responsible and safe experiences for individuals. One of the most important ethical considerations in ayahuasca use is respect for indigenous cultures and traditions. Individuals should approach ayahuasca with reverence and respect for the indigenous communities that have been using this sacred plant medicine for centuries.⁴⁰

Similarly, individuals should also ensure that they are engaging in ayahuasca ceremonies that are conducted by trained and experienced facilitators who have a deep understanding of the cultural traditions and rituals surrounding Ayahuasca use.

Furthermore, it is essential to acknowledge the cultural and spiritual significance of ayahuasca to indigenous communities in the Amazon. Respect for the traditions and knowledge of the indigenous peoples who have been using Ayahuasca for centuries is paramount in ethical ayahuasca usage.⁴¹

Additionally, the concept of reciprocity is also crucial in the ethical framework of ayahuasca. This includes showing gratitude and respect for the indigenous cultures and traditions associated with the brew. Practitioners, policy-makers and researchers face significant challenges in responding to psychoactive substance use that resists traditional conceptualizations and categorizations of illegal drug “abuse.”⁴² Individuals who engage in ayahuasca ceremonies should consider ways to give back to the communities where the tradition originates, whether through financial support, advocacy, or other means of reciprocity.⁴³

It is also important to consider the impact of ayahuasca tourism on local communities and the environment.⁴⁴ Ethical practitioners should strive to minimize their ecological footprint and support local economies sustainably and responsibly. In addition to the

ethical considerations mentioned above, it is important for individuals participating in ayahuasca ceremonies to prioritize their own physical and mental well-being. This includes conducting thorough research on the potential risks and benefits of Ayahuasca, as well as being mindful of any pre-existing medical conditions that may interact with the brew.

Finally, it is crucial for individuals engaging in ayahuasca ceremonies to approach the experience with humility and openness. This entails being receptive to the teachings and insights that may arise during the ceremony and approaching the experience with a mindset of learning and personal growth.

By incorporating these ethical principles into ayahuasca usage, individuals can contribute to the preservation of indigenous traditions, minimize potential harm, and cultivate a greater sense of responsibility and respect for the communities and environments in which Ayahuasca is traditionally used.

Chemical Composition of Ayahuasca

Ayahuasca is a complex psychoactive brew that is prepared by combining two plants, *Banisteriopsis caapi* and *Psychotria viridis*. The former contains harmala alkaloids, most notably harmine, harmaline, and tetrahydroharmine, while the latter contains N,N-dimethyltryptamine (DMT), the primary psychoactive compound in ayahuasca. The combination of these plants results in a unique chemical composition that gives rise to ayahuasca's psychoactive effects.

DMT, a potent hallucinogen, acts as a serotonin receptor agonist, binding to serotonin receptors in the brain and producing profound alterations in consciousness.⁴⁵ DMT in Ayahuasca comes mainly from *P. viridis* and its concentration ranges from 0.1% to 0.66% in dry matter.⁴⁶

For DMT to exert its effects when consumed orally, it must be taken with a monoamine oxidase inhibitor to prevent the gut and liver from degrading it and to lengthen its action. The harmala alkaloids in ayahuasca are responsible for inhibiting the action of the enzyme monoamine oxidase, allowing DMT to be orally active and produce its psychoactive effects.⁴⁷

What is N,N-dimethyltryptamine (DMT)?

For centuries, humans have consumed N,N-dimethyltryptamine (DMT) as a key ingredient in various tisanes and snuffs used during religious ceremonies in Central and South America.⁴⁸ Cited as early as the 15th century, these concoctions were made from

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vines, roots, and shrubs native to these regions and were purportedly used by indigenous peoples to facilitate their communication with the gods. Of the natural products in these mixtures, **DMT has garnered significant interest as it causes intense hallucinogenic effects in humans at doses above 0.2 mg/kg.** Initial scientific studies on DMT conducted in the late-20th century suggested that at lower doses, it had mood-elevating and calming properties. Today, it is thought that DMT and related alkaloids might be used to treat depression and other neuropsychiatric disorders.

Functionally, DMT is most like the serotonergic psychedelics compounds that have “mind-manifesting” properties and are infamous for their effects on perception.⁴⁹ In fact, the structure of DMT constitutes the core of several important psychedelic compounds, including lysergic acid diethylamide (LSD), ibogaine, psilocybin, and 5-MeO-DMT.

DMT was first synthesized by a Canadian chemist, Richard Manske, in 1931.⁵⁰ The presence of endogenous DMT in the human brain has been detected, namely in the pineal gland and cerebrospinal fluid. Strassman provided the hypothesis that DMT could be produced by the pineal gland itself, which would explain extracorporeal, mystical and spiritual experiences, and that DMT’s own production should increase especially in extreme situations, such as agony preceding the onset of death.

Mechanisms of action in the body and brain

The mechanisms of action of ayahuasca are complex and not yet fully understood. The harmala alkaloids act as reversible inhibitors of monoamine oxidase, leading to increased levels of neurotransmitters such as serotonin, dopamine, and norepinephrine in the brain.⁵¹ DMT, on the other hand, exerts its effects primarily through binding to serotonin receptors, particularly the 5-HT_{2A} receptor, which is implicated in the modulation of mood, perception, and cognition.⁵²

Leaves of *P. viridis* or *D. cabrerana* contain the psychoactive compound N,N-dimethyltryptamine (DMT), a commonly found alkaloid present in over fifty other plant species that can induce brief but intense psychoactive effects, including visual hallucinations. DMT acts on specific serotonin receptors in the brain, 5-HT_{2A}, as well as sigma-1 receptor sites. 5-HT_{2A} receptors are widely distributed in the central nervous system and play a key role in the regulation of cortical function and cognition, including learning and memory. DMT also has an affinity for other 5-HT subtypes of the receptor (1A, 1B, 1D, 2A, 2B, 2C, 6 and 7).⁵³ Agonists of these receptors mediate hallucinogenic activity and may produce antipsychotic, antidepressant, and anxiolytic effects.⁵⁴ Sigma-1 receptors, in contrast, have important roles in the modulation of neuronal physiology

and synaptic plasticity, and may have neuroprotective properties for neurodegenerative diseases such as Alzheimer's disease.⁵⁵ β -carbolines as harmine and harmaline can also be hallucinogenic in sufficient quantities.⁵⁶

If taken orally, DMT is broken down by a digestive enzyme called monoamine oxidase (MAO) which prevents its psychoactive effects.⁵⁷ MAO-inhibiting beta-carbolines present in *B. Caapi* prevents the gastrointestinal breakdown of DMT, allowing it to cross the blood brain barrier and reach the central nervous system. For this reason, DMT present in *P. viridis* or *D. cabrerana* alone is not psychoactive after oral administration, and *B. caapi* must be infused with these leaves. Following the administration of ayahuasca, DMT and β -carboniles are present in the human organism and are metabolized and excreted in the urine.

Effects on consciousness and subjective experiences

Ayahuasca is known for inducing profound alterations in consciousness, often described as mystical, visionary, and transformative experiences. The subjective effects of ayahuasca can vary widely, but common experiences include visual and auditory hallucinations,⁵⁸ enhanced emotional awareness, ego dissolution, and a sense of connection with nature, others, and the spiritual realm.^{59 60 61} The unique combination of harmala alkaloids and DMT in ayahuasca contributes to its distinctive psychoactive effects, which can have lasting impacts on personal beliefs, perspectives, and well-being.⁶²

Preparation and Consumption

As with most psychedelics, outcomes are generally better if one has done both preparation prior to the experience and integration afterward.

Preparation

As with other psychedelics, ayahuasca ceremonies can be intense and overwhelming experiences. Without proper preparation, individuals may feel anxious, confused, or even have a challenging trip. Therefore, preparation is an essential step towards having a safe, transformative experience.

One crucial aspect of preparation is educating oneself about ayahuasca. It is essential to consult reliable sources, as education not only provides a better understanding of what to expect but also helps in setting realistic expectations for the journey. Further, seek guidance from psychedelic integration therapists or trusted professionals who can

prepare you for a ayahuasca experience by providing valuable insights, tips, and tools for navigating the journey.

In addition to preparing oneself mentally and physically, it is equally essential to prepare emotionally for a ayahuasca journey. Ayahuasca can bring up intense emotions and experiences, it is vital to be in a stable emotional state before embarking on the journey. This could involve practicing mindfulness and self-care activities leading up to the journey, as well as addressing any underlying emotional issues.

It is also crucial to have a support system in place during and after the ayahuasca journey. Support systems can include a trusted friend or therapist who can provide guidance and comfort during challenging moments. It is normal to experience a range of emotions during and after the journey, so having someone to talk to can be immensely helpful.

Diet or Dieta

Proper preparation for ayahuasca consumption often includes a 'dieta' - a diet of sorts that often includes avoidance of certain foods, other psychoactive substances like alcohol and cannabis, and sexual intimacy.⁶³ It may also include the consumption of non-psychoactive plants. One study on the purposes of this diet found that the studied Peruvian curanderos stated the diet was for health-related purposes and skill or knowledge acquisition-related purposes, meaning that the diet made the ayahuasca safer for the person consuming, and improved their health going into the ceremony, as well as sets their mind and body up for getting the most out of the ceremony itself.⁶⁴

The suggested dietary regimen, known as the *dieta*, for ayahuasca emphasizes a light and nutritious diet, often minimizing or eliminating animal products. Rooted in indigenous traditions, these dietary principles are argued to play a crucial role in preparing the body for an ayahuasca ceremony. In dietas alcohol, drugs, sex, sugar, salt, pork, and some other substances are often forbidden in order to allow better communication with the plant spirits.⁶⁵ **There is limited scientific research specifically focused on the ayahuasca diet.**

Typically, in Western-run ayahuasca retreats, participants are advised to adhere to a set of dietary restrictions for a period of three to seven days before and after consuming ayahuasca. These guidelines often include abstaining from red meat, pork, sugar, spicy foods, coffee, alcohol, illicit drugs, anti-depressant medications, and sexual activities. These substances and activities form a foundational set of dietary and behavioral constraints loosely referred to as the "Western ayahuasca dieta."⁶⁶ Many ayahuasca

retreats or centers dictate much larger lists of restrictions, with some listing over 100 foods and substances that must be avoided. Retreats may also proscribe extra behaviors, such as a prohibition of “overstimulation of any kind: sexual, violent films, stressful and toxic environments.” **However, there is little to no conclusive evidence supporting these practices.**

Scientifically, molecules in the ayahuasca brew are known to inhibit enzymes in the stomach that regulate the intake of serotonin and other neurotransmitters. Some scientists argue that ayahuasca can open the subject to forms of poisoning if combined with the chemical tyramine, which is found in various typically benign foods.⁶⁷ Scientists have posited that consuming certain foods just before ingesting ayahuasca could potentially lead to hypertension. Additionally, it is suggested that specific antidepressant medications may trigger the potentially lethal condition of serotonin syndrome.⁶⁸ **However, conclusive evidence supporting these risks is lacking**, and some scientists, including Luis Fernando Tófoli, argue that the dangers have been overstated. This uncertainty regarding the biological safety of consuming ayahuasca has been acknowledged by some Western practitioners and ritual specialists who assert that the dieta's significance lies not in biological risk but **solely in spiritual and psychological benefits**. According to this perspective, **adhering to the dieta helps individuals accept the group leader, cultural context, and psychologically challenging aspects of the ayahuasca experience**. Westerners generally perceive the ayahuasca dieta in this manner. Even though research does not support (for example removing certain pharmaceuticals or specific behavioral or dietary restrictions, **it is customary to follow the guidelines set forth by indigenous facilitators as this knowledge has been passed down by word of mouth for millennia**, and simply not researched yet.

Importance of proper set and setting

The set and setting play a crucial role in the overall experience and safety when consuming ayahuasca.⁶⁹ The term “set” refers to the mindset, intentions, and emotional state of the individual, while “setting” pertains to the physical and social environment within which the ayahuasca ceremony takes place. It is imperative to cultivate a positive mindset, approach the experience with respect and reverence, and establish clear intentions for personal growth or healing. Moreover, the setting should be comfortable, supportive, and conducive to introspection and exploration. A safe and well-prepared ceremonial space, led by experienced facilitators, can significantly enhance the overall safety and efficacy of the ayahuasca experience.

The preparation and consumption of ayahuasca are deeply rooted in traditional practices and ceremonies. While the proliferation of ayahuasca in Western society is a recent phenomenon, ayahuasca has been cultivated, prepared, and consumed for

thousands of years in indigenous Amazonian cultures as a sacrament in religion, healing, and spiritual ceremonies. The process of preparing ayahuasca involves a meticulous combination of the *B. caapi* vine and the leaves of the *Psychotria viridis* shrub, often under the guidance of experienced shamans or practitioners.⁷⁰ The preparation typically includes the maceration and boiling of the plants to extract the psychoactive compounds and create a potent brew.

Different procedures used for the preparation of ayahuasca decoction, as well as the use of different parts of plants of the same or different species, can result in a high variability of concentrations of individual components.⁷¹ Active ingredients of ayahuasca are sparingly soluble in water and almost insoluble at room temperature. During the preparation of the decoction from these plants at elevated temperature, the active ingredients are partially pre-distilled into the aqueous medium. Regarding the proportional representation of the individual active ingredients of ayahuasca in decoctions, the most represented of β -carbolines is harmine, which is usually more than 15 times higher in concentration than harmaline.

Once prepared, the consumption of ayahuasca is usually done in a ceremonial setting, often accompanied by specific rituals and chants. **Preparation for these ceremonies begins days or weeks in advance**, and often includes psychospiritual preparation, dietary modifications, education about the plant medicine, the practice of intention setting, and cessation of many types of medications.⁷² Preparatory practices vary across cultures, communities, and ceremony leaders, but common elements include dietary and behavioral restrictions (e.g., limiting dairy, meats, alcohol, sugar, and sexual activity). Participants are advised to approach the experience with reverence and respect for the plant medicine, acknowledging its potential for profound physical, emotional, and spiritual effects.⁷³

Without adequate preparation and support, inexperienced individuals attending ayahuasca ceremonies are at risk for challenging and potentially harmful experiences during and following the ceremony.

The effects of ayahuasca can vary widely among individuals, and the experience is often described as intense and introspective. Users may report visual and auditory hallucinations,⁷⁴ profound emotional insights, and a heightened sense of interconnectedness with the natural world and the universe at large. The duration of the experience can last several hours, during which participants are encouraged to remain open to the insights and teachings that may arise.

It's important to emphasize that the consumption of ayahuasca should only be done in a safe and controlled environment, preferably under the guidance of experienced

facilitators who can provide support throughout the journey. Additionally, individuals with certain medical or psychiatric conditions should exercise caution and seek professional advice before considering participation in an ayahuasca ceremony.⁷⁵

For an individual drinking ayahuasca, one must surrender to the ayahuasca experience and meet the medicine halfway,⁷⁶ which includes the willingness to implement and integrate the lessons learned during the experience. In traditional practices of ayahuasca, facilitators, often called shamans, play a crucial role in the potential to improve the outcomes of ayahuasca drinking by guiding individuals through the various stages of an ayahuasca journey.

Overview of existing scientific research on ayahuasca

Ayahuasca has associated benefits for a range of physiological and psychological maladies, including depression, suicidality, anxiety, trauma, grief, addiction and substance use, and neurodegenerative disease. Although much of the research investigating the therapeutic effects of ayahuasca is in its early stages, there is considerable evidence to support further research into the therapeutic potential of ayahuasca.

Depression

An estimated 21 million adults in the United States⁷⁷ have had at least one major depressive episode. Treatment-resistant depression (TRD) is a subset of Major Depressive Disorder, affecting one in three diagnosed patients where individuals do not respond to traditional treatments.⁷⁸ Pre-clinical and observational studies have demonstrated the potential of ayahuasca as a rapidly-acting antidepressant.⁷⁹ In an open-label trial conducted in an inpatient psychiatric unit, participants receiving a single dose of ayahuasca experienced significant reductions of up to 82% in depressive scores.⁸⁰ Similarly, in a recent international cross-sectional study of 11,912 ayahuasca consumers, 78% of participants reported their depression was ‘very much’ improved or ‘completely resolved’ following the consumption of ayahuasca.

Suicidality

In 2019, suicide was the tenth leading cause of death in the United States, claiming the lives of over 47,500 people.⁸¹ A single dose of ayahuasca can produce a significant reduction in both immediate and long-term (up to 21 days) reports of suicidality.⁸²

Anxiety

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An estimated 31.1% of U.S. adults experience any anxiety disorder at some time in their lives.⁸³ 70% of individuals with anxiety reported their symptoms were ‘very much’ improved or ‘completely resolved’ after a single dose of ayahuasca.⁸⁴ In another study assessing ayahuasca ceremony attendants, reduced ratings of anxiety and self-reported stress were observed 4-weeks post-ceremony.⁸⁵

Trauma

The high complexity of symptoms related to trauma represent a significant challenge to traditional therapeutic approaches. Ayahuasca experiences have been likened to intense psychotherapy,⁸⁶ suggesting its therapeutic potential for treating trauma and trauma-related disorders, such as post-traumatic stress disorder (PTSD). Neurological evidence indicates ayahuasca increases activity in neural areas associated with memory and emotional arousal,⁸⁷ supporting suggestions that processing of trauma after ingesting ayahuasca may occur via reprocessing of autobiographical and emotional memories.

Grief

Bereavement, defined as a period of grief after the death of a loved one, is a universally-experienced condition. Recently, Prolonged Grief Disorder was included in the International Classification of Disease, with an estimated 9.8% prevalence among bereaved individuals.⁸⁸ In a recent study of bereaved individuals participating in the ceremonial use of ayahuasca, a significant reduction in the severity of grief was observed,⁸⁹ and this reduction was maintained at a one-year follow-up.

Addiction and substance use

Substance use disorders are among the most prevalent psychiatric disorders. Nearly 92,000 persons in the U.S. died from a drug-involved overdose in 2020.⁹⁰ Preclinical and observational studies suggest individuals with substance use disorders engaging in ayahuasca use report reductions in drug use, anxiety, depression, and increases in quality of life and well-being.⁹¹ In a recent large cross-sectional study across over 40 countries, ayahuasca use was strongly associated with lower self-reported consumption of alcohol and other drugs.⁹²

Neurodegenerative diseases

In a recent in vitro and vivo rodent study, DMT, the psychoactive component in ayahuasca, was found to promote the generation of new neurons.⁹³ Ayahuasca’s ability to modulate brain plasticity therefore suggests it has great therapeutic potential in a range of disorders, including neurodegenerative diseases such as Alzheimer’s and Parkinson’s.

Ayahuasca effects in unique and minority populations

A study by Weiss et al. in 2023 investigated the potential therapeutic effects of ayahuasca in the treatment of post-traumatic stress disorder in veterans, showing promising results in reducing PTSD symptoms.⁹⁴

In a groundbreaking and unique study, Roseman et al. conducted a trial that brought together Israelis and Palestinians to explore the potential therapeutic effects of ayahuasca in addressing deep-seated traumas and conflicts.⁹⁵ The study aimed to investigate the impact of ayahuasca-assisted therapy in promoting healing and reconciliation between the two groups. The results of the study revealed a significant reduction in symptoms of trauma and improved intergroup relations, indicating the potential of ayahuasca as a tool for fostering understanding and peace between Israelis and Palestinians.

In a study by Unlimited Sciences in conjunction with UCSF and Imperial College London, data was gathered on ceremonial ayahuasca use in female Middle Eastern and North African (MENA) immigrants and refugees found that it led to significant improvements in mental health, well-being, and psychological functioning, including reductions in depression, anxiety, and shame, and increases in cognitive reappraisal and self-compassion. Changes in depression and anxiety were significantly associated with acute psychedelic effects related to perceived togetherness and awe, respectively. Participants reported positive behavioral changes persisting months after ingestion, such as improved relationships with others and improved diet/nutrition.⁹⁶

Inflammation

Ayahuasca has even been found to lower levels of C-reactive protein, a marker of inflammation. That decrease was also associated with a decrease in depressive symptoms.⁹⁷

Potential risks and adverse effects of ayahuasca

Although some rare case reports suggest that ayahuasca administration may have played a role in isolated deaths, there is no evidence to suggest a direct causal relationship between ayahuasca and mortality. However, some adverse reactions are common after consumption of ayahuasca.

- Ayahuasca requires careful consideration of the potential risks and adverse effects it presents. While most users report transformative experiences with positive

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outcomes, it is crucial to acknowledge and address the potential adverse effects associated with ayahuasca use.

- Among the commonly reported adverse effects are nausea, vomiting, diarrhea, dizziness, and increased heart rate, primarily attributed to the alkaloids present in the brew, notably N,N-dimethyltryptamine (DMT) and harmala alkaloids.^{98 99} These compounds impact various systems within the body, including the central nervous system, cardiovascular system, and gastrointestinal system.
- Harmaline and harmine in ayahuasca usually cause unpleasant physical sensations, especially paresthesia and numbness, intense vomiting, dizziness, and focusing problems.¹⁰⁰
- A direct relationship between the level of harmaline in the brew and the degree of vomiting was described.¹⁰¹ It also triggered the urge to defecate, especially at the onset of effects. Vomiting and diarrhea may be considered to be the result of increased serotonin levels in the gastrointestinal tract.¹⁰² Vomiting may be induced by increased vagus nerve stimulation at serotonin receptors in the central region. Elevated stimulation of serotonin receptors in the peripheral region in turn increased intestinal motility, resulting in diarrhea.
- Vomiting is considered dangerous, because it can theoretically lead to aspiration of gastric contents and thus endanger health and even life.
- **Despite this, generally many users do not consider vomiting or diarrhea to be a discomfort, but rather a kind of purge effect for the body.**
- Ingestion of higher doses may be accompanied by an increase in blood pressure and pulse rate, which may lead to dangerous side effects in case of pre-existing heart disease.
- From a medical point of view, a combination of ayahuasca with prescription drugs, especially SSRI antidepressants (selective serotonin reuptake inhibitors), means a great risk. Their combination can cause serotonin syndrome, which is a potentially life-threatening condition.¹⁰³
- However, **no adverse effects were observed in long-term ayahuasca users or in elderly people.**¹⁰⁴
- Furthermore, it is important to recognize that the profound alterations in perception, cognition, and emotions induced by ayahuasca can be overwhelming and challenging for individuals, particularly those with pre-existing mental health conditions.

Precautions and guidelines for safe ayahuasca use

- Given the potentially intense and unpredictable nature of ayahuasca experiences, it is paramount to approach the brew with caution and within a safe and supportive environment. Enacting various precautions and adhering to specific guidelines can significantly contribute to a safe ayahuasca journey.

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- **These precautions include:**
 - seeking guidance from experienced and reputable ayahuasca facilitators possessing the necessary knowledge and expertise,
 - engaging in thorough medical screening and discussing potential contraindications with a healthcare professional,
 - obtaining relevant information regarding the potential effects, risks, and possible interactions with medications or other substances,
 - ensuring the physical safety of the ceremony space and **having access to appropriate medical support if required.**
 - maintaining a respectful and mindful attitude towards the brew, and
 - adhering to any dietary restrictions or preparatory practices recommended by the facilitator.¹⁰⁵
 - Additionally, being accompanied by a trusted person who can offer emotional support during and after the ayahuasca experience can greatly enhance the safety and overall well-being of the individual.

Contraindications and medication interactions

Ayahuasca is contraindicated for certain individuals due to potential health risks and possible interactions.

The following categories of people should avoid the use of ayahuasca:

- 1) individuals with a history of severe mental health disorders, such as schizophrenia, bipolar disorder, or psychosis,
- 2) individuals with heart conditions, high blood pressure, or a history of cardiovascular problems.¹⁰⁶
- 3) individuals who are pregnant or breastfeeding, as the effects of ayahuasca on fetal and neonatal development are not well understood,
- 4) individuals taking medications or substances that may negatively interact with ayahuasca, including antidepressants, antipsychotics, MAOIs (monoamine oxidase inhibitors), trazodone, and St John's wort.¹⁰⁷

Integration

Integration refers to the process of incorporating insights gained during a psychedelic experience into one's daily life.¹⁰⁸ Integration can extend for weeks or months. This includes reflecting on insights gained during the journey and applying them to personal growth and well-being. Integration can also involve addressing any challenging emotions or experiences that may have arisen during the journey. This is crucial as the insights

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gained during an ayahuasca journey can be profound and transformative, but without integration, they may not have lasting effects.¹⁰⁹

An ayahuasca journey can be a deeply transformative experience, often bringing about profound insights and shifts in perspective. However, without proper integration, these realizations may fade away over time or even become overwhelming. The goal of integration is to make lasting changes based on the insights gained from an ayahuasca journey.

How to integrate after an ayahuasca journey

Some commonly recommended integration activities include:¹¹⁰

1. **Journaling:** Writing down thoughts and emotions can help individuals process their experiences and gain deeper insights.
2. **Therapy or Counseling:** Working with a licensed mental health professional who is familiar with ayahuasca can aid in the integration process.
3. **Mindfulness Practices:** Engaging in mindful activities such as meditation, yoga, or nature walks can help individuals stay present and connected to themselves.
4. **Support Groups:** Connecting with others who have had similar experiences can provide a sense of community and support during the integration process.
5. **Practicing self-care:** An ayahuasca journey can be physically, mentally, and emotionally demanding. After the experience, it is important to prioritize self-care activities such as rest, healthy eating, exercise, and relaxation techniques.

Overview of Ayahuasca's Legality

The international legal landscape

Ayahuasca's legal status varies greatly across different countries and regions. While it holds a sacred status in indigenous cultures as a plant medicine, contemporary society imposes restrictions and regulations on its legality. Globally, the United Nations classifies ayahuasca as a Schedule I substance under the Convention on Psychotropic Substances.¹¹¹ This classification indicates that ayahuasca is deemed highly prone to abuse with no recognized medical use. Nevertheless, the interpretation and enforcement of international drug treaties differ among countries, leading to a complex and diverse legal landscape.

Legal status in specific countries and regions

Different countries have adopted varying approaches in regulating the use of ayahuasca. In Brazil, ayahuasca is legally permissible for religious and spiritual purposes due to its integral role in religious practices such as Santo Daime, União do Vegetal, and Barquinha.¹¹² Likewise, in Peru, the legal protection of ayahuasca as a cultural heritage allows for its use in traditional indigenous ceremonies. Conversely, countries like the United States and numerous European nations classify ayahuasca as a controlled substance, prohibiting its possession, distribution, and utilization. Some countries have implemented specific legislation to permit the religious use of ayahuasca, while others operate in legal gray areas.

Legal challenges and controversies surrounding ayahuasca

The legal status of ayahuasca has given rise to numerous challenges and controversies.¹¹³ Legal battles have emerged in support of the religious use of ayahuasca, with indigenous and religious groups advocating for recognition of their cultural practices and rights to engage with this sacred medicine. These challenges often revolve around the delicate balance between individual religious freedom and public health concerns, as well as the potential risks associated with ayahuasca use. In addition, issues such as intellectual property rights and cultural appropriation¹¹⁴ have come to the forefront, as Western individuals and organizations commercialize ayahuasca-related practices without obtaining informed consent or providing fair compensation to indigenous communities.

Frequently Asked Questions:

Q: Is Ayahuasca Safe? What are the main health risks?

In structured settings with health screening and supervision by qualified personnel, ayahuasca doses appear relatively physiologically safe. Risks include psychological distress, temporary cardiovascular effects, and contraindications with some medications/pre-existing conditions like bipolar disorder or SSRI antidepressants. Risks increase severely if it's done without proper oversight. Please seek guidance from your healthcare provider if you have any medical concerns or are on any medications.

Q: Will I vomit on Ayahuasca?

Vomiting or purging is a very common physiological effect during the ayahuasca experience. The purgative properties come from the beta-carboline compounds in the

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brew stimulating digestion along with nausea. Purging is considered by traditional groups as an integral detoxifying part of the ritual allowing emotional release along with physical cleansing. While unpleasant, vomiting isn't usually dangerous with ayahuasca unless pre-existing medical conditions may lead to complications. Those leading ceremonies are generally well-equipped to handle participants getting sick. Modern usage spaces sessions apart to minimize heaviness. But purging remains likely given ayahuasca's emetic nature so readiness for vomiting helps mentally prepare. Light meals and pre-ceremony fasting help reduce the intensity. The focus remains on embracing the journey without resistance. Indigenous cultures even see power in overcoming the purge. Other forms of purge may occur, such as diarrhea, sweating, crying, or shaking.

Q: Where can one find reputable Ayahuasca ceremonies or retreats?

It's essential to research and choose reputable Ayahuasca ceremonies or retreats thoroughly. Seek recommendations, read reviews, and ensure that the facilitators or shamans have experience and prioritize participants' safety and well-being.

Remember, Ayahuasca is a powerful and sacred plant medicine that should be approached with respect, caution, and a deep understanding of its cultural and spiritual context. If in doubt, consult with healthcare professionals or experienced practitioners for guidance.

Q: What does a traditional ayahuasca ceremony involve?

Indigenous ayahuasca ceremonies are elaborate ritual events led by an experienced shaman who prepares the brew and then guides participants through group experiences. Ceremonies include purposes like holistic healing, initiations into adulthood, connecting with ancestors, and receiving guidance from spirits or plant teachers. Traditional elements involve chanting sacred songs (icaros), rattling, percussion music, tobacco smoke blowing and others.

Q: What should someone expect after participating in an ayahuasca ceremony?

The days following a ceremony are when you integrate lessons, visions, and unlocked emotions into everyday life, which takes reflection through practices like creative expression, journaling, or group discussions. Digestion may need resettling with blander diets temporarily. Flashbacks occasionally happen too. Overall integration takes work beyond ceremonies alone to actualize positive growth and self-discovery initiated by ayahuasca's visionary stimulus.

Q: What are some common substances to avoid while preparing to consume ayahuasca?

It is important to note that there is limited scientific research specifically focused on the ayahuasca diet. However, common substances that are typically avoided while ingesting ayahuasca include the following:

- Alcohol
- Marijuana and other drugs
- Caffeine (the best way to stop caffeine is to incrementally lower your consumption to avoid withdrawals)
- Red meat
- Pork
- Shellfish
- Refined sugars
- Nuts (on a limited basis)
- Dairy
- Fermented foods (yeast/pickles/vinegar/most salad dressings, etc)
- Soy products (including miso and tofu)
- Salty foods
- Fried Foods
- Spicy foods
- Chocolate
- Overripe fruits
- No salt or citrus on the day of ceremony only
- No sex (or masturbation) for 3 days before the ceremony (and 3 days after).

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Q: Can I drink ayahuasca if I'm taking prescription medication?

If you are on any anti-anxiety medications, antidepressants, amphetamines, antihypertensives, antipsychotics, antihistamines, heart medications or decongestants, please consult your doctor prior to signing up for an ayahuasca ceremony. Please also discuss any medication use with the facilitator.

Q: What is a typical dose?

The specific ingredients and methods of preparation vary among different indigenous tribes. Due to these differences, potency can differ substantially across different methods of preparation. Individuals consuming ayahuasca should always proceed with caution. Ayahuasca is administered in varying amounts, depending on the potency or concentration of the brew, which is usually known by the healer, shaman, curandero or group who brewed it.

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