

Q. What is ayahuasca?

A. Ayahuasca is a hallucinogenic drink traditionally used in shamanic rituals by indigenous Amazonian tribes, prepared by boiling or soaking the bark and stems of *B. caapi* with additional alkaloid-containing plants. Ayahuasca is considered an “entheogen,” a term applied to a psychoactive substance used to occasion spiritual experiences by indigenous societies. The leaves of these alkaloid-containing plants contain DMT, a potent hallucinogenic, while the bark of *B. caapi* contains potent MAO-A inhibitors necessary for activation of DMT (McKenna, 2004). DMT shares the same primary brain mechanism of action as other classic hallucinogens such as LSD, psilocybin (in “magic mushrooms”), and mescaline (in peyote), and therefore produces effects similar to these other substances.

Q. What are the potential mechanisms of action underlying ayahuasca for the treatment of posttraumatic stress disorder (PTSD)?

A. Proponents of ayahuasca for the treatment of PTSD claim that it causes users to revisit and process issues associated with personal traumas. It also has been hypothesized to produce therapeutic effects by changing serotonin function in the brain, or by causing other persisting biological changes (e.g., Callaway, Airaksinen, McKenna, Brito, & Grob, 1994). Numerous additional claims have been made about divination, spiritual encounters, and other effects of ritualistic use of ayahuasca.

Q. Is ayahuasca recommended as a treatment for PTSD in the Military Health System (MHS)?

A. **No.** The 2017 VA/DoD Clinical Practice Guideline (CPG) for the Management of Posttraumatic Stress Disorder and Acute Stress Disorder does not include ayahuasca as a treatment for PTSD.

The MHS relies on the VA/DoD clinical practice guidelines (CPGs) to inform best clinical practices. The CPGs are developed under the purview of clinical experts and are derived through a transparent and systematic approach that includes, but is not limited to, systematic reviews of the literature on a given topic and development of recommendations using a graded system that takes into account the overall quality of the evidence and the magnitude of the net benefit of the recommendation. A further description of this process and CPGs on specific topics can be found on the VA clinical practice guidelines website.

Q. Do other authoritative reviews recommend ayahuasca as a treatment for PTSD?

A. **No.** Other authoritative reviews have not substantiated the use of ayahuasca for PTSD.

Several other recognized organizations conduct systematic reviews and evidence syntheses on psychological health topics using similar grading systems as the VA/DoD CPGs. These include the Agency for Healthcare Research and Quality (AHRQ) and Cochrane.

- AHRQ: No reports on ayahuasca as a treatment for PTSD were identified.
- Cochrane: No systematic reviews on ayahuasca as a treatment for PTSD were identified.

Q. Is there any recent research on ayahuasca as a treatment for PTSD?

A. A May 2020 literature search identified no studies investigating the efficacy of ayahuasca as a treatment for PTSD. To this date, there is only one published randomized controlled trial (RCT) evaluating the efficacy of ayahuasca for the treatment of a mental health disorder. This recently published Brazilian trial examined participants with treatment-resistant depression (Palhano-Fontes et al., 2019). Other than this single RCT, the evidence base for ayahuasca as a treatment for mental health disorders has comprised a small number of observational and uncontrolled studies on depression.

The scarcity of ayahuasca research may be due in large part to its ambiguous legal status. Religious and spiritual uses of ayahuasca by certain groups have been sanctioned in the U.S. However, DMT is a Schedule I controlled substance and ayahuasca beverages containing DMT may be considered illegal in the U.S.

Q. What conclusions can be drawn about the use of ayahuasca as a treatment for PTSD in the MHS?

A. There is currently no evidence that ayahuasca is effective in the treatment of PTSD, and therefore ayahuasca is not recommended by current guidelines or authoritative reviews. The burden of evidence needed to substantiate a novel treatment such as ayahuasca is considerable, and would likely necessitate considerable evidence of safety in the PTSD population as well as rigorous RCTs demonstrating efficacy. Several programs and retreats purporting to use ayahuasca to treat PTSD have emerged in recent years. Absent evidence for efficacy, and considering possible safety and legal concerns, these programs and retreats cannot be recommended for the treatment of PTSD or as an adjunctive treatment.

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References

Callaway, J. C., Airaksinen, M. M., McKenna, D. J., Brito, G. S., & Grob, C. S. (1994). Platelet serotonin uptake sites increased in drinkers of ayahuasca. *Psychopharmacology*, 116(3), 385–387.

Department of Veterans Affairs/Department of Defense. (2017). *VA/DoD clinical practice guideline for the management of posttraumatic stress disorder and acute stress disorder. Version 3.0*. Washington, DC: Department of Veterans Affairs/Department of Defense.

McKenna, D. J. (2004). Clinical investigations of the therapeutic potential of ayahuasca: rationale and regulatory challenges. *Pharmacology & Therapeutics*, 102(2), 111–129.

Palhano-Fontes, F., Barreto, D., Onias, H., Andrade, K. C., Novaes, M. M., Pessoa, J. A., ... Araujo, D. B. (2019). Rapid antidepressant effects of the psychedelic ayahuasca in treatment-resistant depression: A randomized placebo-controlled trial. *Psychological Medicine*, 49(4), 655–663.

