

# PEYOTE

## Also Known As

Devil's Root, Dumpling Cactus, Mescal Buttons, Mescaline, Pellote, Sacred Mushroom.

## Scientific Names

*Lophophora williamsii*.

Family: Cactaceae.

## People Use This For

Orally, peyote is used for treating fevers, rheumatism, and paralysis.

Topically, peyote is used for treating fractures, wounds, and snake bite.

Recreationally, peyote is used as a hallucinogen.

## Safety

**UNSAFE** ...when used orally. Peyote is illegal in the US. It is a FDA schedule I controlled substance (14).

**PREGNANCY AND LACTATION:** **UNSAFE** ...when used orally due to potential for adverse effects (14).

## Effectiveness

There is insufficient reliable information available about the effectiveness of peyote.

## Mechanism of Action

The applicable parts of peyote are the above ground parts after the hair tufts are removed. The clinical effects of peyote are due to mescaline, which is structurally similar to amphetamines, and similar in activity to LSD, and the mushroom hallucinogens psilocybin and psilocin. In fact, people who take mescaline have a cross-tolerance to these other hallucinogens. Mescaline causes central nervous system and sympathetic stimulation and hallucinations. It's not clear exactly how mescaline causes hallucinations. However, its effects can be blocked by either serotonin antagonist methysergide or dopamine antagonist haloperidol. The hallucinogenic dose of peyote is about 5 mg/kg (14), or 4 to 12 slices of sprouts cut into 3-4.5 cm diameter pieces. Amphetamine-like or sympathomimetic effects are more common with higher doses (18).

## Adverse Reactions

Nausea and vomiting are usually the first symptoms to occur after peyote ingestion. They usually resolve 2 hours after ingestion. Hallucinogenic effects peak at 3.5 to 4 hours, and resolve 15 hours post-ingestion. The hallucinations include visual, aural, taste, smell, touch, and abnormal perception of time and space. Anxiety, paranoia, fear and emotional instability may also occur. Common physiologic effects include mild elevations in heart rate, blood pressure and respiration rate. Sometimes slow heart beat occurs instead in response to elevated blood pressure. Mydriasis, blurred vision, palpitations, salivation, headache, dizziness, difficulty with walking, and drowsiness may also occur. Ingestion of peyote is rarely fatal. However, people can die as a result of homicidal, psychotic or suicidal behavior associated with their hallucinations. Flashbacks may also occur (14).

## Interactions with Herbs & Other Dietary Supplements

Insufficient reliable information available.

## **Interactions with Drugs**

**INSULIN:** Mescaline can increase the toxic effects of an insulin overdose.

**PHYSOSTIGMINE:** If given with mescaline, it can increase the risk of death.

**METHYSERGIDE, HALOPERIDOL:** Block mescaline's hallucinogenic effects.

**VERAPAMIL:** Can counteract mescaline-induced cerebral vasospasm.

**METHADONE, ALCOHOL:** Concomitant administration with mescaline can lead to seizures, kidney damage due to protein overload from the seizures (rhabdomyolysis), and prolonged coma (14).

## **Interactions with Foods**

No interactions are known to occur, and there is no known reason to expect a clinically significant interaction with peyote.

## **Interactions with Lab Tests**

No interactions are known to occur, and there is no known reason to expect a clinically significant interaction with peyote.

## **Interactions with Diseases or Conditions**

No interactions are known to occur, and there is no known reason to expect a clinically significant interaction with peyote.

## **Dosage and Administration**

No typical dosage.

## **Comments**

Peyote is considered unsafe and illegal. It should not be used (see Safety) (14). Mescaline is also available as a crystalline powder, tablets, and powder. However, tablets which are perceived as mescaline often contain LSD, PCP, amphetamines, aspirin, STP, and/or strychnine instead. A previous 10 year survey found that 76% of "mescaline" tablets were altered in this manner (14).