Deliriant Plants (Datura, Belladonna, Henbane) Harm Reduction Information

Also called nightshade plants; Datura stramonium (jimsonweed, thorn apple, angel's trumpet), Atropa belladonna (deadly nightshade) and Hyoscyamus niger (black henbane)

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Please Read First

This page is educational. It is not medical, legal or professional advice, and I am not a physician or an attorney. This information was gathered from published harm reduction organizations, medical and legal sources, and my own training and experience, and I may have made mistakes. You are responsible for confirming anything here before you act on it, with a qualified medical provider and, for questions of law, an attorney. Laws and knowledge about psychedelics change quickly, and some of what is written here may have changed since the date above. Nothing here encourages anyone to break the law. It exists to reduce harm for people who will make their own choices. I do my best to keep up with current law and research, but I cannot promise that anything here is current or complete.

It is advisable to meet with a psychedelic-informed physician for an assessment before using any psychedelic or related substance.

Where this information came from: The sources listed under References, and my own training and experience.

This document was drafted with the support of Claude, an AI assistant. I reviewed it, and AI and I can both be wrong, so check anything that matters to you before you act on it.

What Deliriant Plants Are

Datura, belladonna and henbane belong to a different family of experience than psychedelics. They are deliriants: the chemistry clouds the mind more than it opens it. All three are nightshades (Solanaceae), and all carry tropane alkaloids, chiefly hyoscyamine (atropine) and scopolamine (also called hyoscine) [1][2][3]. These molecules block acetylcholine at muscarinic receptors, which produces an anticholinergic delirium: confusion, agitation, a racing heart, hot dry skin, wide pupils, memory loss and hallucinations that feel completely real to the person having them [1][4][5]. Many harm reduction groups advise against these plants, and the section called Why Many Harm Reduction Groups Advise Against These Plants says why in plain terms. The rest of the sheet gives the safety information anyway, because people use them and because children and pets find them.

Names and Plants

Datura goes by jimsonweed (from Jamestown, where soldiers ate it and lost days to delirium), thorn apple, devil's snare, moonflower and, sometimes, angel's trumpet [2][6]. The species named in the cases I read include Datura stramonium, Datura inoxia, Datura metel and Datura wrightii (sacred datura of the American Southwest) [6][7][8]. Belladonna is Atropa belladonna, deadly nightshade. Henbane is Hyoscyamus niger (black henbane) and its relatives [1][9]. Brugmansia, the garden shrub also called angel's trumpet, is a close relative that poison services group with Datura; it is rich in scopolamine and, in some Amazonian settings, is called toe [10][11][12]. Names overlap. The Ohio health report points out that moonflower covers several plants with different toxicity, so a common name tells you very little about what you have [6].

Where They Come From

Datura is native to Central America and spread across the Old World early on; Datura wrightii ranges from the Southwest into northwestern Mexico [2][8]. Belladonna and henbane are natives of temperate Europe and Siberia, and henbane is naturalized in Britain and Ireland [9][13]. Many of these are weeds or garden plants, and Datura is a widely sold ornamental [6]. The review of the medical literature found a pattern: Datura mostly shows up in teenage drug use, belladonna in berries mistaken for edible fruit, and henbane in plants mistaken for other plants [1]. A descriptive review of henbane adds that even small amounts of any part of the plant can cause intoxication, from dizziness to delirium, and that plant poisoning is rarely serious yet can be lethal, most of all in children [14]. Alkaloids concentrate in leaves and seeds and, in belladonna and Datura wrightii, the root [3][8][13].

For thousands of years these plants have been medicine, anesthetic, poison and sacrament. Henbane, mandrake, belladonna and Datura appear in ancient and medieval anesthetic potions and in magic brews [9][13]. Atropine was first crystallized in 1831 [13]. Smoking Datura was used for asthma into the early 1900s [2].

The witches' flying ointment of European folklore is often tied to these plants. The evidence is thin: most of it is witch-trial testimony (often gathered under torture), the writings of witch-hunters and later folklore, recipes conflict, and historians generally call the accounts impossible to verify [15]. I would not build a belief about what these plants do on that history.

In the Americas, Chumash, Cahuilla, Tongva and Zuni peoples are named among those who used Datura in ceremony, healing, divination and coming-of-age rites. The sources I read agree that use was restricted to experienced practitioners, that Zuni use was limited to a few religious leaders, and that the dose was everything: the same plant could heal or kill [8][16]. One Wikipedia passage says not all Chumash boys survived their initiation, and I could not trace that to a primary source [8]. Those traditions rested on lineage, training and restriction. A plant picked from a garden or a roadside carries none of that.

About the Sources

PubMed, PubMed Central and Europe PMC were closed to me during this research, so I read abstracts, hospital guidelines, government pages and the CDC reports instead, and the reference list says which. Two references carried over from the earlier draft of this page (the henbane review and the 2024 belladonna case report) could not be reopened. Most clinical evidence here is case reports, poison center series and outbreak reports. Hospital reports describe the people who were found and treated, so they lean toward the harder end of the range. What It Feels Like rests on those reports and on a few clinical and community pages. I did not draw on the first-person accounts on Erowid, because Erowid asks that its reports not be analyzed by AI systems. Community sites (PsychonautWiki, Erowid) are user knowledge, and PsychonautWiki marks its own toxicity section as a stub.

What It Feels Like

What hospitals and users describe for datura, belladonna and henbane is delirium: a clouded mind, hallucinations that look like the ordinary room, a body that overheats and dries out, and hours that go missing. The experience of a classic psychedelic is a different thing. Nearly everything known comes from doctors writing up the people who were brought to them, so it shows the hard end of the range, and people who had a milder time are less likely to be written about. Datura has the most written about it. For belladonna I found one 2024 case report [17], and for henbane one descriptive review [14], so the sections below speak mostly about datura and say where the others differ. People differ and the plants differ, so nothing here promises one outcome.

The Body

The signs match what hospitals record. Pupils are wide and slow to react, vision blurs and close work such as reading becomes hard, the heartbeat races, the mouth and skin dry out, and a full bladder may not empty [6][18][19][20][21]. Sweating shuts down, so heat cannot leave the body [21], and fever was recorded in the older American outbreak report and in a young child [20][22]. Hospital reports also describe combative agitation that needed sedation and restraint [6][19][23].

Belladonna in the one case report I could read brought dry mouth, wide pupils, a racing heart, agitation and delirium, with flushing, unsteady walking and urinary retention named as other possible effects [17]. For henbane, a descriptive review lists sedating, sleep-inducing and hallucinogenic effects and describes poisoning as confusion, disorientation, aggression and combative behavior [14]. Why the body reacts this way is under How They Work in the Body, and the dangers are under Heart, Blood Pressure and Body Temperature.

How the Course Moves

Onset is usually within a short while of swallowing but can be delayed; in one hospital case, symptoms began days after seeds were eaten [18]. That makes the amount hard to judge from how a person feels, which is my reading of the reports and not a finding.

The middle is a long, flat stretch, with no peak to ride up and come down from. Hospital series describe confusion and hallucination lasting many hours and into the next day [6] [20]; the figures, and the sources that disagree, are under How Long It Lasts.

A person can seem better before they are. One teenager in the Winnipeg series had hallucinations that came, went and came back [18].

The return is slow and partial. Hospital reports describe a day or two of confusion afterward [20][22], and the eyes and memory can lag behind (see The Days After).

Seeing and Hearing

The hallucinations are the part least like a psychedelic. The ones hospitals record are ordinary and believable: people who are not in the room, insects and small animals, objects that seem real [6][19][20]. Sights are more common than sounds [20]. They look like the room itself, which is why the person usually cannot tell them from it [4][24].

For henbane, the review says hallucinations can be heard, seen or felt on the skin [14].

Feelings

The experience is usually described as unpleasant and distressing. PsychonautWiki, a community source, reports realistic and sometimes nightmarish hallucinations, paranoia, a sense of impending doom and gaps in memory [5][24]. Hospital reports describe agitation, aggression and swings of mood more than a feeling that builds and passes [6][19][23][25]. Fear shows up as panic in a child with agitation [22][23]. For belladonna and henbane, the case reports describe agitation and aggression [14][17].

Insight, Presences and the Edge of the Self

What the clinical sources describe is confusion: a person who cannot reliably say where they are or what is real [4][24]. PsychonautWiki adds derealization and loss of the ability to communicate, covered under Toxicity and the Mind.

When It Is Hard

Hard is the usual case with these plants. The central difficulty is the delirium itself: the person cannot think straight, may not know they are hallucinating, and later may not remember [4][24]. Hospital reports describe falls, wandering and aggression with no awareness of danger, and combative patients who needed sedation and restraint [6][19] [20][23]. Most patients in the series I read recovered with supportive care. These reports describe only the people who were found and treated. Deaths, memory loss, being alone and lingering effects are covered under Toxicity and the Mind.

What Shapes the Experience

Strength is the main variable, and it cannot be chosen: the same weight of leaf, seed or root can carry very different amounts of alkaloid, and hospital cases of children who ate seeds by accident show how little it takes [3][22][23][24]. Company can help with the situation around the poisoning and cannot change the dose (see Choosing a Sitter). Other drugs and anticholinergic medicines add to the danger, as set out under Contraindications.

The Days After

The eyes lag longest. Wide pupils and poor close focus can last for days after the confusion lifts [18][19][20]. Hospital reports describe a day or two of confusion and tiredness [20][22]. Memory for the episode can be missing, and the Geneva details are under Lingering effects in Toxicity and the Mind. The patients in the belladonna report improved and were discharged [17].

How It Is Taken

No route has a known safe margin, because the dose cannot be known whichever way it is taken.

Swallowed: Seeds, Teas, Berries and Brews

This is the route behind most of the cases. Teenagers have eaten seeds and drunk tea made from root, leaf, flower or seeds [6][7][20]. Belladonna poisonings come mostly from berries mistaken for blueberries or other fruit, and henbane from roots mistaken for edible roots [1][13][26]. Swallowing slows absorption, which explains the 30 to 60 minute onset and the long course [4]. Tea made from the same plant on different days can differ widely.

Forms You May Meet

Dried leaf and seeds, garden plants, homemade teas and tinctures, henbane oil (sold in some shops without medical oversight, per Wikipedia), belladonna in supplements and homeopathic products, and brews with toe added [9][12][13][27]. Street names include crazy tea [27].

Smoked

Smoking Datura has caused poisonings, and it was an old asthma remedy [2][24]. A commercial guide suggests smoking may be somewhat less dangerous than swallowing; its own footnotes show weak or no direct support for that [28]. I would not rely on it.

On the Skin and Eyes

Historic flying ointments are the best-known skin use, and the evidence for them is folklore [15]. PsychonautWiki mentions seeds in boiled preparations and ointments used for sexual purposes and says the toxicity is unpredictable [24]. A scopolamine skin patch is an approved medicine, and its label lists psychotic reactions, seizures and, after several

days of use, withdrawal symptoms, in carefully made, measured amounts [29]. Handling the plants can itself be harmful, per two sources, which I could not confirm in a clinical report [13][28]. There is one personal report (Sabrina's own) of at least one person having a psychedelic response to touching Datura leaves. Wash hands after touching them and keep them away from your eyes, which is a precaution and not a documented rule.

How Long It Lasts

Onset is usually 30 to 60 minutes after swallowing, and the poisoning typically lasts 24 to 48 hours, because the alkaloids slow the gut and keep absorbing [4][27]. The Ohio teenagers who ate Datura inoxia seeds or drank tea from them had symptoms lasting 24 to 48 hours [6]. A Medscape reference says recreational effects run about 8 to 12 hours after moderate amounts and 2 to 3 days after larger ones [4]. PsychonautWiki gives a user-report table of onset in 20 to 120 minutes, a peak of 5 to 12 hours and a total of 8 to 18 hours, with after-effects of 6 to 24 hours [24]. Wikipedia reports cases lasting up to two weeks, from a source I could not trace [2]. For henbane, one summary gives initial effects of 3 to 4 hours and after-effects up to three days [9]. Nineteen children with henbane poisoning in a Bedouin series were symptom-free within 24 hours of reaching the hospital [26].

Sources disagree because the plant part, the preparation and the amount differ every time. The honest answer is that a person may be impaired for one to three days, and some effects last longer (see Lingering Effects below). Plan on a long, unpredictable course, not an evening.

About Deliriant Plants and Their Effects on the Body

How They Work in the Body

Atropine, hyoscyamine and scopolamine block muscarinic acetylcholine receptors, in the brain and in the body. In the body that dries the mouth and skin, widens the pupils, speeds the heart, slows the gut and bladder, and shuts down sweating. In the brain it produces delirium, memory failure and hallucination [4][21]. Poisoning looks like anticholinergic toxicity whether the source is Datura, henbane or belladonna, and a 2024 case report and literature review of belladonna poisoning is titled for severe neurotoxicity [7][17]. Scopolamine is thought to be the main toxic compound in Datura by one clinical reference, and the main active compound in Datura wrightii by another [4][8]. In young Datura stramonium plants scopolamine outweighs atropine by about three to one, and the balance reverses after flowering (single source) [2].

What makes these plants dangerous is variability. A DEA fact sheet puts the alkaloid content of dried Datura leaf at a few tenths of a percent [27]. PsychonautWiki cites up to a five-to-one difference in potency between plants, depending on age, growing location and weather, and Wikipedia cites up to twenty to one, from a source I could not trace [2][24]. Content differs from leaf to leaf and seed to seed on the same plant [3]. For that reason

no kitchen scale, spoon or handful tells you what dose you are taking. PsychonautWiki itself says there is no way for an ordinary person to measure a dose accurately [24].

In a controlled trial of 20 healthy adults who ate a buckwheat dish spiked with a measured atropine and scopolamine mixture, dry mouth and sweating peaked around an hour and a half, heart rate around two hours, and pupil size and near vision around four hours [30]. That was a research setting with tiny, known amounts. It shows the timing of the body effects, and nothing in it tells you what a garden plant contains.

Heart, Blood Pressure and Body Temperature

The classic picture is hot, dry, flushed skin, widened pupils, urinary retention, a fast heart and delirium. Emergency medicine teaches it as red as a beet, blind as a bat, mad as a hatter, full as a flask, hot as a hare, dry as a bone, with the heart running alone. A heart rate of 120 to 160 is typical, and the ECG may show sinus tachycardia and sometimes a widened QRS [21]. In the 1994 New York cases, 10 of 14 people had wide pupils, 12 had visual hallucinations and 6 had a fast heart [20]. In the heroin outbreak, patients also had mildly raised blood pressure, urinary retention and reduced bowel sounds [31]. The scopolamine label lists high blood pressure and supraventricular arrhythmias among overdose signs [29].

The picture can vary. In a 13-year-old boy poisoned by Datura metel flowers, the pulse was a normal 75 and there was no fast heart, though pupils were wide and he was delirious [7]. A normal heart rate does not rule the poisoning out.

Heat is the danger people underestimate. Because sweating shuts down, the body loses its main way of cooling, and dangerous fever can develop, especially with agitation [21]. Erowid says overheating combined with unawareness of the body can become life-threatening [32]. Medscape notes that some deaths from jimson weed came from drowning or exposure rather than the alkaloids directly [4]. Wikipedia reports fevers as high as 43 degrees C (109 F) for Datura wrightii, an unsourced figure [8].

Toxicity and the Mind

Poisonings and deaths. These plants kill, and they hurt many more people than they kill. In June 1994 two teenagers in Texas died after drinking tea brewed from jimsonweed root mixed with alcohol; testing of the tea found atropine and scopolamine [20]. The same CDC report described 14 patients in New York (four treated and sent home, six hospitalized, three in intensive care) and six teenagers in California with tea poisoning, four of whom went to intensive care before being discharged the next day [20]. In Ohio in 2002, 14 teenagers (12 of them male, median age 17) were poisoned within about six weeks; all recovered with supportive care and benzodiazepines [6]. In Texas poison center data from 1998 to 2004, 188 jimsonweed exposures were reported, 78 percent intentional, with 72 percent of people aged 13 to 19 and 89 percent of those with a known outcome having moderate or major effects [33]. A fatal case reported in 2004 involved a 19-year-old who took Datura seeds for hallucinations and was found dead; his blood

levels were the highest the authors had seen reported in such a death [34]. In Cornwall, Ontario, 15 teenagers were hospitalized over about two weeks, several in intensive care, and police visited schools with the seeds; the news page I read shows no date and no deaths [35]. Poison center counts are small and uneven. The DEA fact sheet records two deaths in 2010 and none in 2016, and Medscape records 528 anticholinergic plant exposures in 2017 with no deaths and, in 1993, two deaths among 318 Datura cases [4] [27]. A Hungarian review notes that in American data Datura was not among the 15 most common plant ingestions yet caused about 20 percent of fatal plant outcomes over 26 years [10].

Mass poisonings. In Ethiopia in 1984, corn flour contaminated with Datura stramonium seeds sickened 688 of 1,492 patients seen on a cotton plantation; 33 were hospitalized and 9 died [36]. In Slovenia in 2003, 73 people became ill from buckwheat products contaminated with Datura seeds [37]. In France in 2024, 49 people (five of them children) fell ill and five needed hospital care after eating buckwheat flour suspected of Datura contamination [38].

Delirium and amnesia. Amnesia is common, and Medscape lists it among the usual features [4]. PsychonautWiki reports hallucinations that can be sinister, psychotic delirium, derealization and loss of the ability to communicate, and says psychosis and delirium are reported at a significantly higher rate than with LSD, ketamine or DMT, a claim based on online reports and not on a comparison study [24]. A person in this state cannot reliably consent, judge danger, or recall what happened.

Seizures and the kidneys. Seizures are listed in poisoning reports and on the scopolamine label [4][29]. In the Turkish pediatric series of henbane poisoning, 35.7 percent of the severe cases had seizures and 67.9 percent had acute kidney injury, against 10 percent in the milder group; the authors link a fast heart rate with kidney injury [39]. Everyone in that series recovered fully.

Danger to self and others. Accidental injury is a serious risk because behavior is irrational and the person may not feel pain or judge height, water or fire [32]. An unverified news item describes a German teenager who severely injured himself with garden shears after using angel's trumpet [11]. A commercial guide says some users have turned violent or broken into homes, a claim with no case behind it that I could find [28].

Being alone. This is the clearest point. Delirium takes away the ability to call for help, to know that help is needed, or to remember asking. Erowid, PsychonautWiki, the Geneva clinicians and the commercial guide all say a sober person must be present [24][25][28] [32]. Group use is common: the Geneva authors note that initiation often happens in groups, and a 1995 news report describes seeds passed around at parties [25][40]. A group of impaired friends is no substitute for one sober person.

Driving. The scopolamine label warns that it can impair the mental and physical abilities needed to drive or operate machinery, and says alcohol, sedatives, opiates and other

brain-active or anticholinergic drugs make that worse [29]. In the Geneva case series, one teenager could not focus her eyes for several days after discharge [25]. Wide pupils and poor near vision can last well beyond the confusion. Do not drive until vision and thinking are clearly back, and I would add a day or more after that as a margin, which is my judgment.

Lingering effects, memory and thinking. In the Geneva report of two teenagers, one had a memory gap for the episode that lasted several months [25]. PsychonautWiki says anterograde amnesia has occurred and in some cases persisted, with trouble forming new memories, and that vision can be unfocused for days (a stub section) [24]. A 2025 meta-analysis of scopolamine in healthy adults found it impairs recall and recognition memory and slows reaction time, and that the cognitive effects were not long lasting, though those studies used controlled medical amounts and not plant material [41]. A rodent study mentioned by Wikipedia linked a whole-plant extract to memory deficits and brain damage; I did not read it and it cannot be applied to people [2]. The honest summary is that most people seem to recover, a few report gaps and vision problems lasting weeks to months.

Children and pets. Children are especially vulnerable. The scopolamine label notes that children are particularly susceptible to wide pupils, hallucinations, amblyopia (blurred or reduced vision) and withdrawal symptoms [29]. The Turkish pediatric series of 68 children with henbane poisoning (median age about five years) had 28 severe cases, and all recovered; no child received physostigmine [39]. In the Bedouin series, 19 children aged 4 to 8 ate henbane roots they mistook for edible ones; three fell into deep coma, and all were symptom-free within a day of admission [26]. PsychonautWiki says the prognosis for children is likely fatal, and the pediatric series I read do not support that, so I treat it as an overstatement [24]. Belladonna berries look appealing and taste somewhat sweet, which is the main risk to children [13], and PsychonautWiki calls the plant extremely toxic, with delirium and hallucinations comparable to Datura [42]. Pets are at risk too: all parts of Datura are toxic to dogs, with signs including stomach upset, wide pupils, a fast heart, flushed skin, constipation and neurologic signs [43]. Call Poison Help or Pet Poison Helpline right away for a child or animal that has chewed any of these plants.

Contamination of other products. Tropane alkaloids turn up where no one wants them. Datura seeds harvested with grain contaminate flour and cereal: AGES reports that dry herbal teas are the most affected product, about 20 percent of flour samples had detectable levels, and in Austrian testing from 2020 to 2025, 19 of 178 samples contained tropane alkaloids and 6 exceeded the EU limit, millet most of all; EFSA found that worst-case estimates could exceed its safe reference level, especially for infants, toddlers and children [37]. A 2022 incident involving contaminated spinach in Australia sickened about 200 people, per Wikipedia [2]. Street drugs have carried scopolamine: in 1995 and 1996, at least 325 people in four American cities needed treatment after using street heroin that contained it, apparently a synthetic form; some were first given naloxone, which worsened agitation, and physostigmine reversed the symptoms [31]. Ayahuasca brews are

sometimes boosted with Brugmansia (toe) to give a stronger experience, which makes overdose far easier than with the DMT in ayahuasca and raises the risks of seizures and amnesia [12]. Scopolamine has also been used to drug people without their knowledge: the US Embassy in Colombia warned of travelers drugged and robbed, and prosecutors handled 82 cases of foreigners robbed with a toxic substance in 2022, not all confirmed as scopolamine [44]. Belladonna turns up in supplements and homeopathic teething products with uneven amounts: Hyland's teething tablets were recalled in 2010 over inconsistent belladonna, and in 9/2016 the FDA told parents to stop using homeopathic teething products while it reviewed reports of seizures in infants and children; the page I read does not say the FDA tied the reports to belladonna [13][45].

Why Many Harm Reduction Groups Advise Against These Plants

Most harm reduction work starts from the idea that a person who will use something deserves accurate information about how to do it with less risk. For these plants, the accurate information is that the safest course is not to use them, and many harm reduction sources say so openly. PsychonautWiki, the most detailed community source, strongly advises avoiding Datura altogether and calls it extremely dangerous [24]. Here are the reasons I can source, and they stand on their own.

First, nobody can know the dose. The variation is under How They Work in the Body. The gap between a dose that clouds the mind and a dose that sends a teenager to intensive care is narrow, and it cannot be seen from outside. In the Texas poison center data, 82 percent of intentional-use cases ended up at a health care facility [33].

Second, the experience is delirium, not insight. Memory is lost as it happens, judgment is gone, and the hallucinations feel real [4][24]. There is little to integrate afterward because much of it is not remembered.

Third, you cannot stop it. The course runs a day or two, a hospital antidote exists but is given only under monitoring, and nothing taken at home reverses it [4][46]. Fourth, the main killers are often the situation around the poisoning: heat, drowning, falls and injury [4][32]. Fifth, the plants turn up as contaminants, so even a person who never chose them can be poisoned [31][37].

I include the safety information below for people who will go ahead, for people already in trouble, and for the friend sitting beside them. Read the warning signs first.

What Hospital Care Looks Like

There is no specific test for these plants; diagnosis rests on the signs and on what the person or witnesses say they took [4][25]. Care is mostly supportive. Activated charcoal may be given if the person reaches care early and can cooperate (within one to two hours), induced vomiting with ipecac should not be used, and stomach pumping (gastric lavage) is controversial [4][21]. Benzodiazepines are the first-line choice for agitation and seizures, repeated as needed, and sedation also lowers the risk of overheating, muscle

breakdown and injury [21]. A urinary catheter may be needed if the bladder will not empty [4].

Physostigmine is the antidote for the delirium itself. It is a short-acting drug that crosses into the brain, and the usual use is for severe agitation or delirium that benzodiazepines have not controlled, after urinary retention has been excluded and with a toxicologist consulted [21][46]. It is given only with heart monitoring, because it can cause a slow heart, seizures, wheezing and excess secretions, and it is avoided in seizures, a slow heart, a widened QRS, any heart block, asthma or bronchospasm, narrow-angle glaucoma and tricyclic antidepressant overdose [21][46]. It wears off sooner than the plant, so patients who received it are admitted [21]. Medscape does not recommend it before the person reaches a hospital [4]. In the heroin outbreak it reversed the symptoms, and the CDC noted its risks and that many patients improved with sedation and observation alone [31]. The Austin guideline cites no studies, so I cannot rate how strong the evidence is [46].

Where physostigmine is hard to get, an oral drug called rivastigmine is used as an alternative, and the Ontario Poison Centre advises against neostigmine and pyridostigmine because they barely enter the brain [47]. One 2026 case of a 13-year-old with Datura metel poisoning was treated with neostigmine; the authors credit the recovery mostly to the body clearing the toxin and to supportive care [7].

Observation is long. A mild case may go home after about six hours if everything clears. After seeds, a long-acting exposure or a large ingestion, doctors observe for 24 to 48 hours even when the person looks well, because the gut is slow [21]. Symptomatic patients are generally admitted to intensive care [4]. Most people recover without complications [4]. Tell the staff what plant, what part, how it was prepared, when, and what else was taken, and bring the plant or a clear photo of it. That last piece of advice is my own.

Legal Status

Last checked 10/28/2026.

Federal

According to the DEA, neither the Datura plant nor its constituents are controlled under the federal Controlled Substances Act [27]. Erowid reports the same, adding that Datura is unscheduled, is not approved for human consumption, and that products sold as food or drugs fall under FDA rules [48]. In practice that means growing the plant is not a federal crime, while selling it for people to take can run into FDA law. Atropine and scopolamine in medicine are prescription drugs approved by the FDA, scopolamine for example as a patch [13][29]. Belladonna is also sold as a supplement, and the FDA has warned about homeopathic belladonna teething products (details under Contamination of other products in Toxicity and the Mind) [13][45].

Some states have their own laws, per an Erowid summary that is undated and that I did not check against statute text: Kansas lists Datura stramonium as Schedule I (since 2008), Nevada lists it as Schedule I with an FDA exception, Louisiana makes it illegal when intended for human consumption (since 2005), and Connecticut treats it as a restricted drug; New Jersey makes distributing certain stramonium preparations a crime [48]. Some cities have acted too: Maitland, Florida banned planting angel's trumpet in 1995 [40]. State laws change, so check yours.

Colorado

Proposition 122, the Natural Medicine Health Act of 2022, names dimethyltryptamine, ibogaine, mescaline (excluding peyote), psilocybin and psilocin. It does not name Datura, belladonna, henbane, or any tropane alkaloid, and its definition lists specific substances and not a category of plants [49]. Until 6/1/2026 the regulated program covered only psilocybin and psilocin; after that date the state may add DMT, ibogaine and mescaline if its advisory board recommends it [50]. As of 10/28/2026, the Division of Natural Medicine home page lists an emergency rule effective 8/12/2026 on limited sales licenses and says nothing about these plants [51]. Proposition 122 does not cover them, so its personal-use protections do not apply to them.

I read the definitions section of Colorado's controlled substances act (section 18-18-102) and found none of the terms Datura, jimsonweed, belladonna, atropine, scopolamine, hyoscyamine or henbane there, but I did not read the schedules in sections 18-18-201 to 207, so I cannot tell you that no Colorado law touches these plants [52]. The law here is unsettled in the sense that I could not find a clear answer, and the practical risk is not mainly criminal. It is medical. An emergency visit for a plant poisoning goes on a medical record, and a sale of the plants or extracts for human use could draw FDA and state attention.

Contraindications

Contraindications means a reason not to take something, or to take it only with a clinician who knows your history. Evidence key: CT means controlled trial data, CASE means case reports, REPORTS means self-reports or community experience, THEORY means expected from the pharmacology with no direct report found, and LABEL means the FDA prescribing information for scopolamine, one of the same alkaloids, in measured medical amounts. No controlled trial has tested these plants for experience, so nearly everything below is LABEL, CASE or THEORY. Never stop a prescribed medicine on your own; talk to the prescriber first.

Medications

Other anticholinergic medicines. Sedating antihistamines (diphenhydramine, doxylamine, dimenhydrinate, hydroxyzine, meclizine), tricyclic antidepressants (amitriptyline and nortriptyline are common examples), muscle relaxants

(cyclobenzaprine), bladder medicines (oxybutynin is an example), Parkinson drugs (benztropine, trihexyphenidyl, biperiden), the diarrhea drug diphenoxylate with atropine, and other belladonna products. The label says such drugs can increase the effects of scopolamine, including central effects, urinary retention and intestinal obstruction [29]. WikEM lists antihistamines, tricyclics, antipsychotics, muscle relaxants and anti-Parkinson drugs among causes of the same syndrome [21], and PsychonautWiki lists diphenhydramine, doxylamine, mirtazapine, biperiden and trihexyphenidyl as deliriants in their own right [5]. LABEL and THEORY. The effects add up.

Cholinesterase inhibitors (donepezil, rivastigmine, galantamine, pyridostigmine). They push the opposite way and are used in hospitals as antidotes (rivastigmine, physostigmine); donepezil and galantamine are advised against even as antidotes because of weak evidence and a long half-life [47]. Someone on them would get an unpredictable mixture of effects. THEORY.

Antidepressants of other types (SSRIs, SNRIs, MAO inhibitors). WikEM lists SSRIs among medications that can cause anticholinergic toxicity [21]. A commercial guide says to avoid MAO inhibitors and antidepressants and gives no source [28]. REPORTS and THEORY.

Antipsychotics and drugs that lower the seizure threshold (bupropion, tramadol; antiseizure medicines). The label warns that scopolamine may worsen psychosis, causes seizures in some, and calls for weighing the risk in people with seizure histories or on antiepileptics [29]. Bupropion and tramadol are my examples of seizure-threshold drugs, an inference. LABEL and THEORY.

Medicines with a narrow safety margin (warfarin, digoxin, lithium and some seizure medicines are examples I chose). Scopolamine slows stomach emptying and can change how oral drugs are absorbed, and the label advises monitoring such drugs [29]. LABEL and THEORY.

Heart and blood pressure medicines (beta blockers, calcium channel blockers, antiarrhythmics). These plants speed the heart and can disturb its rhythm, and a heart medicine's effects and the drug's own effects can fight or add, so this is a conversation for a physician. THEORY.

Glaucoma eye drops and prostate or bladder medicines. See Conditions below. The label contraindicates scopolamine in angle-closure glaucoma and warns about urinary retention, so anyone treating those problems has a particular reason to avoid these plants [29]. LABEL.

Anesthesia and surgery. A commercial guide says to tell hospital staff you took an anticholinergic so they avoid certain anesthetics and aspirin; Wikipedia says Datura with anesthesia is usually fatal and gives no source [8][28]. I could not verify either claim and would tell any anesthesiologist. REPORTS.

Conditions

Glaucoma. Angle-closure glaucoma is a label contraindication, because scopolamine can raise eye pressure and trigger acute angle closure; open-angle glaucoma needs monitoring [29]. Eye pain, blurred vision, halos or red eyes are an emergency. LABEL.

Urinary retention, enlarged prostate or bladder blockage. The plants cause urinary retention, and the label warns about prostate disease and bladder neck obstruction [29]. Hospitals may need a catheter [4]. LABEL.

Intestinal or stomach outlet blockage, slow gut. The label warns about suspected intestinal or pyloric obstruction, since the alkaloids slow the gut [29]. LABEL.

Heart disease, abnormal heart rhythm, uncontrolled high blood pressure. A fast heart is typical and rhythm trouble can occur, high blood pressure is a listed overdose sign, and a commercial guide says people with heart conditions should avoid these plants [21][28][29]. LABEL and THEORY.

Psychosis, schizophrenia, bipolar disorder. The label says scopolamine may worsen psychosis and has been linked to acute toxic psychosis [29]. PsychonautWiki reports psychosis and delirium after Datura, and says rare cases of temporary or long-term psychosis have occurred [24]. LABEL and REPORTS.

Seizure disorders. Seizures are reported with the plants and with scopolamine [4][29]. LABEL and CASE.

Pregnancy and preeclampsia. Human data on scopolamine in pregnancy are limited to observational and postmarketing reports and have not shown a rise in birth defects, and the label advises avoiding it in severe preeclampsia because eclamptic seizures followed injected scopolamine [29]. For the plants, whose dose is unknown, a commercial guide says pregnant women should avoid them [28].

Breastfeeding. Scopolamine is present in breast milk, and the label says the effects on a breastfed infant and on milk production are unknown [29].

Kidney problems. In a series of children poisoned by henbane, acute kidney injury was frequent in the severe group [39]. CASE.

Eating disorders and diuretics. Dehydration, which comes with an inability to sweat, is a concern for anyone, and especially for a person with an eating disorder or on diuretics, which is my inference.

Asthma and lung disease. The plants relax the airways and were once smoked for asthma [2], but a person with asthma who needs the antidote physostigmine faces a risk, since bronchospasm and asthma are contraindications to it [21][46]. This is a hospital problem to flag, not a reason to try the plants.

Age. Children are particularly susceptible, per the label [29]. Medical teaching holds that older people are more sensitive to anticholinergic medicines, which I could not cite from the sources I read.

Allergy to belladonna alkaloids. A label contraindication [29]. LABEL.

Other Substances and Combinations

Combinations of medicines get their own document with a large warning at the top; this is the short version for these plants. The evidence is mostly label-based or from case reports.

Alcohol. The label says alcohol adds to impairment from scopolamine, and the 1994 Texas deaths involved root tea mixed with alcohol [20][29]. This is the one combination with real case data, though it does not prove cause.

Other anticholinergics. Other anticholinergic medicines add to the effect; they are the first item under Medications.

Sedatives and opioids. Benzodiazepines (diazepam, lorazepam, alprazolam, clonazepam), other sedatives and sleep drugs, and opioids (heroin, oxycodone, morphine, codeine) add to impairment. The label says sedatives, opiates and anxiolytics can add to scopolamine's effects [29]. A UK government publication cited on Wikipedia says opiates act together with atropine rather than cancelling it [15]. In the heroin outbreak, naloxone did not treat the poisoning and made agitation worse [31]. LABEL and CASE. Hospitals use benzodiazepines in a monitored way [21]; that is not a reason to take them for comfort.

Stimulants, ecstasy and cocaine. Amphetamine, methylphenidate, cocaine and MDMA also speed the heart and raise body temperature, so effects stack. In the 1994 New York cluster the first patient had also used cocaine, MDMA and marijuana, which tells us little about cause [20]. THEORY and CASE.

Cannabis. PsychonautWiki theorizes cannabis and caffeine may inhibit deliriants and offers no practical guidance, and I treat it as a guess [5].

Psychedelics and ayahuasca. Adding toe (Brugmansia) to ayahuasca is a known practice that raises risk of seizures, amnesia and overdose [12]. If you plan to take part in a ceremony, ask what is in the brew.

Cholinergic substances. PsychonautWiki mentions that cholinergic substances such as racetams may relieve some anticholinergic effects, as a theory only [5]. Do not try to treat a poisoning with supplements. Call for help.

Addiction and Misuse

PsychonautWiki calls Datura mildly addictive, says tolerance builds with repeated use and fades over one to two weeks, and notes cross-tolerance with other deliriants; it adds that most people do not want to repeat the experience [5][24]. Erowid says few people use it often [32]. The Geneva authors also say the unpleasant experience usually discourages

repeat use [25]. In Hungary, angel's trumpet and Datura accounted for 60 percent of plant misuse cases over 13 years, which tells us the plants are used repeatedly by some people, and not how many have a use disorder [10].

A related finding comes from medicine. After several days of continuous scopolamine patch use, stopping can bring dizziness, nausea, vomiting, abdominal cramps, sweating, headache, confusion, weakness and a slow heart, usually starting a day or more after removal, and the label says it can be severe [29]. That is a measured pharmaceutical exposure. A commercial guide warns that regular low-dose use could build up to dangerous toxicity; it cites no study, and I treat it as a caution only [28].

Addiction means loss of control, craving and continued use despite harm, often with withdrawal. Misuse means use that raises risk or causes harm, such as using alone, mixing with sedatives or alcohol, using to escape feelings, or using around children. With these plants the larger problem is misuse and accident, not addiction. That is my own framing.

Testing and Purity

What Is Really in the Plant

Adulteration is one problem, and the larger one is that the plant itself varies in potency, so there is no standard unit to test (see How They Work in the Body). Datura, Brugmansia and other lookalikes are easily confused, and the common name moonflower covers several plants of different toxicity [6]. Lookalike plants are covered under Swallowed, and contaminated flour under Toxicity and the Mind.

Test Kits and Labs

I did not find a consumer test kit validated for tropane alkaloids, and I did not find a drug-checking service that tests plant material for them. If you know of one, treat its claims with the same care you would give any other. Food laboratories do measure tropane alkaloids in flour, tea and cereal products, which shows the chemistry can be detected [37]. Hospitals have no specific blood test either, and diagnosis is clinical [4][25]. A poison center can help you think through an exposure when you call 1-800-222-1222 [53].

Preparation and Integration

I give no amounts and no timing, because I could not find a safe one for anyone. The checklist below is risk reduction for people who will go ahead anyway, and for the friend or family member who ends up responsible.

Before

Read Contraindications first. Talk to a physician before, especially about glaucoma, heart rhythm, seizures, psychosis, pregnancy, and every medicine you take. Do not take these plants with other substances, including alcohol [25][29]. Pick a cool, shaded, indoor space on one floor with nothing to climb and no pool, tub or open water near, and keep keys,

and anything that could hurt someone, out of reach. Cool air matters because sweating shuts down; that is my inference from the mechanism. Have a plan and a ride to the nearest emergency department, and the Poison Help number saved in the phone [28][53]. Keep children and pets away from the plants and anything made from them [43].

Choosing a Sitter

Do not do it alone. At least one sober person should stay for the whole course, and the commercial guide suggests a few sitters in shifts for the long course [24][28][32]. The sitter watches for the warning signs under If You Need Help Now, and the person may be unable to recognize them [32].

During

Keep the person out of the sun, away from water and stairs, and do not let them drive or leave. Do not argue with what they report seeing; speak simply and calmly. Do not give other drugs, sedatives or antihistamines to settle them [29]. Do not wait to see if a bad sign passes. A call to 911 or Poison Help earlier costs little. What to do while you wait is under Warning Signs.

After

Expect a long course, with tiredness, light sensitivity and blurred near vision lasting beyond the confusion, and memory gaps [24][25]. Rest, eat, drink water and avoid other substances. Do not drive until vision and thinking are clearly back. Because much of the experience is not remembered and the hallucinations came from delirium, I would be gentle about reading meaning into them, and a counselor who knows deliriants is better company than guesswork; that is my view. See a physician if vision problems or memory gaps last more than a week or two (details under Lingering effects in Toxicity and the Mind). Fireside Project volunteers are trained peers and can listen to a hard aftermath [54].

If You Need Help Now

In a medical emergency, call 911. If you are in emotional crisis, you can call or text 988. Fireside Project has trained volunteers who talk with you by phone or text during and after a psychedelic experience, and DanceSafe sells kits for testing what you hold.

Warning Signs

Call 911 for any of these: a seizure; difficulty waking someone or loss of consciousness; trouble breathing; skin that is hot and dry with no sweat, or a very high temperature; a racing heart that does not settle, chest pain or fainting; extreme agitation, violence, or someone trying to leave for water, a road or a height; swallowing by a child, even if they look well [4][20][21]. The classic signs of the poisoning itself are listed under Heart, Blood Pressure and Body Temperature.

While you wait: stay with the person, keep them cool with a fan and cool cloths, and move hard objects out of the way. Place someone who is drowsy on their side. Do not make them vomit (hospitals avoid it) [4], give nothing by mouth if they are drowsy, and give no other drugs. Tell responders it may be an anticholinergic plant, what plant and what part, when, and what else was taken, and show them the plant or a photo. If the source might be street heroin or a drug of unknown content, say so; scopolamine contamination has been mistaken for an opioid overdose, and naloxone did not help in that outbreak [31].

For a child or pet that has chewed one of these plants, call Poison Help at 1-800-222-1222 or Pet Poison Helpline right away, and go to emergency care if there are any signs [43][53].

For suicidal thoughts, call or text 988, any hour [55]. Poison Help at 1-800-222-1222 is free and confidential [53]. Fireside Project at 62-FIRESIDE (623-473-7433) is open daily from 11 a.m. to 11 p.m. Pacific time, which is noon to midnight Mountain time. Its volunteers are trained peers rather than clinicians, and it is not a medical service or a suicide line [54].

Where to Find More Information and Support

Amounts, timing and combinations are best checked against these sources and with a medical provider, because they are updated more often than this sheet. Erowid, TripSit and PsychonautWiki include user reports and community writing, so read them as experience as well as research.

Erowid: https://erowid.org

DanceSafe: https://dancesafe.org

TripSit: https://tripsit.me

PsychonautWiki: https://psychonautwiki.org

Zendo Project: https://zendoproject.org

Fireside Project: https://firesideproject.org

MAPS: https://maps.org

Poison Help: 1-800-222-1222

For Deliriant Plant Questions

PsychonautWiki, Datura page (community wiki, with a toxicity section marked as a stub): https://psychonautwiki.org/wiki/Datura

PsychonautWiki, Deliriant page: https://psychonautwiki.org/wiki/Deliriant

Erowid, Datura health and safety: https://www.erowid.org/plants/datura/health

DEA fact sheet on jimson weed: https://www.deadiversion.usdoj.gov/drug_chem_info/jimson_w.pdf

Pet Poison Helpline, jimson weed: https://www.petpoisonhelpline.com/poison/jimson-weed/

Colorado Division of Natural Medicine: https://nmd.colorado.gov/

Mailing Lists

Erowid Monthly, a free email list: https://www.erowid.org/about/about_announcements.shtml

Erowid Extracts, the members' newsletter: https://erowid.org/membership/

MAPS email newsletter: sign up at https://maps.org

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