



TOXTALKS

A BULLETIN FOR HEALTHCARE PROFESSIONALS WHO MANAGE POISONED PATIENTS

Blue Ridge Poison Center

University of Virginia Health

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FORAGERS BEWARE: ALKALOID-CONTAINING PLANTS

Foraging, or the act of searching for food resources in the wild, is often considered a hobby for nature-lovers or a way to obtain healthy food alternatives. However, foraging is not without risk, and the proper identification of wild plants can be a daunting task for inexperienced foragers. The Centers for Disease Control and Prevention (CDC) and other organizations warn about the dangers of foraging mushrooms, but numerous other toxic plants can be mimics of sought after wild edibles. During the current quarantine due to the COVID-19 crises, the Blue Ridge Poison Center has received several unique calls due to mistaken identification and subsequent ingestions of toxic plants.

When symptomatic patients present to the hospital after foraging, all efforts are made to identify the plant. Pictures of the plant in question can aid in these efforts. However, an accurate identification, picture, or detailed description of the plant is frequently unavailable. In these cases, patients must be treated based on clinical symptoms, with decontamination and supportive care as appropriate. As some plants produce specific toxidromes, a patient's clinical picture can be used to identify potential causes.

Some of the most common toxic constituents of plants are alkaloids. Recently, the Blue Ridge Poison Center has received multiple calls on two alkaloid-containing plants associated with clinical toxicity: *Datura stramonium* and *Veratrum viride*.

Datura stramonium is commonly known as jimsonweed, locoweed, devil's weed, Devil's trumpet, and Angel's trumpet, among others. This plant is often found growing throughout Virginia on the sides of roads, in the wild, or as a weed in home gardens. All parts of the plant are toxic, containing the alkaloids atropine, scopolamine, and hyoscyamine. Ingestion of this plant produces an anticholinergic toxidrome with symptoms including mydriasis, dry skin, decreased bowel motility, urinary retention, hyperthermia,

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NEWS AND NOTES:



The U.S. Food and Drug Administration (FDA) continues to warn consumers not to use certain hand sanitizers due to the

illegal and dangerous presence of methanol, which can be toxic when absorbed through the skin as well as life-threatening when ingested.

The agency issued a warning earlier this month about an increasing number of adverse events, including blindness, cardiac effects, effects on the central nervous system, and hospitalizations and death, primarily reported to poison control centers and state departments of health. The agency continues to see these figures rise.

[The FDA has compiled a 'Do Not Use' list of affected products.](#) There are currently 87 products on the list; It is updated regularly.

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mumbling speech, agitation, and delirium. These symptoms typically present 30-60 minutes after ingestion but can persist for 24-48 hours based on the amount of exposure. Generally patients recover with supportive care and administration of benzodiazepines for agitation. There is an antidote for jimsonweed poisoning in physostigmine, a medication used to reverse antimuscarinic poisoning. However, physostigmine has its own adverse effects and the risks and benefits of physostigmine use must be weighed carefully. We recommend consulting your local poison center to discuss the potential utility of physostigmine prior to administration.

Typically growing 2-5 feet tall, jimsonweed is found growing in the summer and fall seasons. When in bloom it can be easily identified by its large white/purple trumpet-like flowers. Otherwise, it notably has spiky pods with small brown or black seeds containing significant concentrations of atropine. Calls to the poison center have come from persons mistaking this plant for edible alternatives such as kale, and being inappropriately used to make salads.



Jimsonweed images courtesy of Christopher Holstege, MD, Blue Ridge Poison Center

Veratrum viride is commonly known as false hellebore, with other plants in the *Veratrum* genus including Indian poke and California hellebore. False hellebore is often found along streambanks and swamps due to its preference for moist soil, as well as in meadows and on hillsides. All parts of the plant are toxic, containing numerous alkaloid components including protoverine and veratridine. These toxic alkaloids work by opening sodium channels. Ingestion of false hellebore causes burning of the mouth and throat followed by headache, nausea, vomiting, and diarrhea, with severe toxicity causing bradycardia and hypotension as well as seizures and cardiac dysrhythmias. Symptoms generally occur within an hour of ingestion and treatment is supportive, although atropine or vasopressors may be

necessary for toxin-induced bradycardia and hypotension, respectively. There is no specific antidote for false hellebore ingestions.

Typically growing 2-6 feet tall, false hellebore can be found growing in the summer season. When in bloom, it has clusters of yellow-green blooms filled with seeds, but otherwise can be identified by its striated spiral-arranged leaves. Unfortunately, false hellebore is often mistaken for *Lysichiton americanus* (skunk cabbage), *Allium tricoccum* (leeks, ramps) or *Camassia quamash* (wild onions).



Image on left courtesy of Christopher Holstege, MD, Blue Ridge Poison Center.

Image on right (flowering false hellebore) obtained from <https://gobotany.nativeplanttrust.org/species/veratrum/viride/>

A recent publication entitled [*The Socrates Project*](#) was created by the [Old Rag Chapter of the Virginia Master Naturalists](#) Program to educate the Virginia public on local poisonous plants.

In summary, plant exposures are quite common and the Blue Ridge Poison Center has experienced numerous calls due to confusion among lookalike plants. While plant exposures typically have low mortality, some plants can have profound toxicities requiring medical intervention and hospitalization. Those who choose to forage should do so with caution.

If questions arise on this or any other poisoning, the medical staff at the Blue Ridge Poison Center would happy to assist. Free medical consult is available 24 hours a day, every day: **1-800-222-1222**. (Healthcare providers may also call the dedicated HCP hotline: 1-800-451-1428.)

The Blue Ridge Poison Center receives funding from University of Virginia Health, the Virginia Department of Health, and the U.S. Health Resources Services Administration (HRSA). We are accredited by the American Association of Poison Control Centers. We've been proudly serving the Commonwealth since 1978.

Poison safety tips, free materials, & more:

