CONDITION

Pokeweed poisoning

Pokeweed poisoning is an acute illness caused by swallowing toxic parts of the pokeweed plant.

WHAT IT IS
Acute illness after swallowing toxic pokeweed

BODY SYSTEM
Digestive, heart and circulation, and nervous system

MAIN SYMPTOMS
Nausea, vomiting, stomach cramps, diarrhea

WHAT CAUSES IT
Swallowing toxic parts of the pokeweed plant

HOW IT IS DIAGNOSED
Exposure history, symptoms, and plant identification

MAIN TREATMENT
Supportive care, fluids, and symptom monitoring

CAN IT BE CURED?
Yes - effects usually clear with supportive care

IS IT AN EMERGENCY?
Sometimes - fainting, seizures, or breathing trouble

LONG-TERM OUTLOOK
Most people recover fully after the acute illness

Overview

Pokeweed poisoning happens when someone swallows part of a pokeweed plant. American pokeweed, Phytolacca americana , is a tall plant with reddish-purple stems and clusters of dark purple berries. It grows in fields, gardens, woodland edges, and other disturbed ground.

Every part of the plant can contain harmful chemicals. The root is generally considered the most toxic part. Leaves, stems, and berries can also cause poisoning. The amount of toxin may differ with the plant's age, growing conditions, and the part eaten.

Pokeweed has sometimes been prepared as a traditional food known as "poke sallet" or "poke salad." Traditional preparation involves repeated boiling and discarding the water. However, there is no reliable home method that guarantees all toxins have been removed. Eating raw or improperly prepared pokeweed can cause serious illness.

Most poisonings mainly affect the digestive system, causing vomiting, stomach cramps, and diarrhea. Larger exposures can affect blood pressure, heart rhythm, breathing, or the nervous system. Prompt advice from a poison centre can help determine whether monitoring at home or medical assessment is appropriate.

Symptoms

Symptoms commonly begin within several hours of eating pokeweed. Their timing and severity can be influenced by the plant part, the amount swallowed, whether it was cooked, and whether berries or seeds were chewed.

Common symptoms include:

Vomiting and diarrhea can lead to dehydration. Signs include a dry mouth, intense thirst, passing little urine, and feeling light-headed when standing.

More severe poisoning may cause a fast or irregular heartbeat, low blood pressure, confusion, unusual drowsiness, muscle weakness, seizures, or difficulty breathing. These effects are less common but require urgent care.

Pokeweed sap may irritate the skin, particularly after prolonged contact. Skin exposure is not the usual cause of systemic poisoning, meaning illness throughout the body. Wash exposed skin with soap and water and avoid touching your eyes or mouth.

- Burning or irritation in the mouth
- Nausea and repeated vomiting
- Stomach pain or cramping
- Watery diarrhea
- Weakness, dizziness, or headache

Causes and risk factors

Pokeweed contains several biologically active substances, including saponins and plant proteins called lectins. These substances can irritate the digestive tract and, in larger exposures, affect other body systems.

Poisoning most often follows accidental or mistaken ingestion. Examples include eating the leaves as wild greens, using the root in a homemade preparation, or confusing young pokeweed shoots with an edible plant.

Children may be attracted to the shiny purple berries. Swallowing an intact berry may not release as much toxin as chewing it, but every berry exposure should still be discussed with a poison centre. It is difficult to know how much was swallowed or whether seeds were crushed.

Risk may be greater when:

Pokeweed poisoning is not an infection and cannot spread from person to person.

- Roots, mature leaves, or large amounts are eaten
- Plant material is raw or inadequately cooked
- A homemade tea, tincture, or supplement contains pokeweed
- The person is very young or already medically vulnerable
- Vomiting or diarrhea prevents fluids from staying down

Diagnosis

There is no routine blood or urine test that specifically confirms pokeweed poisoning. Diagnosis is usually based on what was eaten, the symptoms, their timing, and identification of the plant.

If it can be done safely, take clear photographs of the plant, including its leaves, stem, berries, and growing location. A sample can sometimes help with identification, but do not handle roots or sap with bare hands. Do not delay calling for help while trying to identify the plant.

Medical testing is used mainly to assess the effects of poisoning rather than to prove which plant caused it. Depending on the symptoms, this may include blood tests for dehydration, kidney function, and electrolyte levels. Electrolytes are minerals such as sodium and potassium that help control nerves, muscles, and heart rhythm.

An electrocardiogram, or ECG, may be used to check the heartbeat. Blood pressure, breathing, alertness, and urine output may also be monitored.

Other causes of sudden vomiting and diarrhea may need to be considered, especially if the plant exposure is uncertain.

Treatment and management

There is no specific antidote for pokeweed poisoning. Treatment supports the body while the toxins are cleared and manages problems such as vomiting, dehydration, or changes in heart rhythm.

If pokeweed may have been swallowed, remove any remaining plant material from the mouth and rinse the mouth gently. Contact a poison centre promptly for advice based on the person's age, symptoms, plant part, and possible amount.

Do not make the person vomit. Vomiting can lead to choking or allow stomach contents to enter the lungs. Do not use salt water, herbal remedies, or other home treatments.

A poison specialist may recommend observation at home after a very small exposure if the person remains well. This decision should be made with professional guidance rather than by assuming that berries or cooked leaves are safe.

Hospital or emergency treatment may include:

Activated charcoal may be considered in selected recent poisonings, but it is not suitable for everyone. It should only be given when directed by a poison specialist or healthcare professional, particularly because pokeweed commonly causes vomiting.

- Fluids by mouth or through a vein
- Medicine to control severe nausea and vomiting
- Blood tests and replacement of abnormal electrolytes
- Monitoring of blood pressure, breathing, and heart rhythm
- Treatment for seizures, breathing problems, or rhythm disturbances

Complications

The most likely complication is dehydration from repeated vomiting and diarrhea. Significant fluid loss can lower blood pressure and reduce blood flow to the kidneys.

Loss of electrolytes can cause weakness, confusion, muscle problems, or an abnormal heartbeat. These changes can usually be corrected when identified and treated.

A person who is very drowsy or vomiting heavily may breathe vomit into the lungs. This is called aspiration and can cause breathing problems or lung inflammation.

Severe nervous system effects, seizures, dangerous heart rhythm changes, and respiratory failure have been reported, but they are not typical of small exposures. Lasting complications are uncommon when the acute illness is treated before severe dehydration or organ injury develops.

Prevention

Pokeweed poisoning is preventable by avoiding the use of the plant as food or medicine.

Learn to recognize pokeweed if it grows around your home. Mature plants often have smooth reddish-purple stems, large leaves, and drooping clusters of dark berries. Appearance can change through the growing season, so an identification app alone should not be relied on before eating a wild plant.

Remove pokeweed from places where young children play. Wear gloves, avoid contact with sap, and wash your hands and tools afterward. Place roots, berries, and cut plant material where children and pets cannot reach them.

Do not eat a wild plant unless its identity and safety are certain. Pokeweed should not be used in homemade tea, tinctures, supplements, or cancer remedies. "Natural" does not mean non-toxic.

Traditional cooking practices may reduce pokeweed toxins, but they do not provide a dependable guarantee of safety. The safest approach is not to eat it.

Store harvested edible greens separately from unidentified plants. Check each plant rather than assuming all leaves gathered from the same area are the same species.

Living with it and what to expect

Pokeweed poisoning is usually an acute event rather than a long-term condition. Symptoms develop over hours and commonly improve after the digestive upset settles and lost fluids are replaced.

Some people can be observed at home after advice from a poison centre. Others need medical monitoring because of persistent vomiting, dehydration, abnormal vital signs, or uncertainty about the amount eaten.

Recovery time is influenced by the size and type of exposure. Mild symptoms may clear within a day. More substantial poisoning can take several days, especially if dehydration or electrolyte problems require treatment. Fatigue and a sensitive stomach may continue briefly after vomiting and diarrhea stop.

Pokeweed toxin does not usually remain in the body and cause an ongoing illness. Most people who recover without organ complications do not need long-term treatment.

Routine follow-up may be appropriate if stomach symptoms continue, normal eating and drinking do not return, or medical tests were abnormal during treatment. A clinician may repeat kidney function or electrolyte tests after a significant exposure.

Future reactions are not caused by increased sensitivity from the first poisoning. However,

eating pokeweed again can cause another episode, and the severity cannot be predicted from what happened previously.

When to get medical help

Contact a poison centre promptly whenever pokeweed may have been swallowed, even if there are no symptoms yet. In the United States, Poison Control can be reached at 1-800-222-1222 . Elsewhere, use your local poison information service.

Have the following information ready if possible:

Seek urgent same-day medical care for repeated vomiting, frequent diarrhea, worsening stomach pain, marked weakness, reduced urination, or difficulty keeping fluids down. Children, older adults, and people with kidney or heart problems may become dehydrated more quickly.

Call emergency services immediately if the person:

Do not drive someone who is fainting, confused, having a seizure, or struggling to breathe.

- The person's age and approximate weight
- The plant part involved
- Whether it was raw, cooked, dried, or made into a drink
- The possible amount and time of exposure
- Current symptoms
- A photograph or description of the plant
- Has trouble breathing
- Collapses, faints, or cannot be awakened normally
- Has a seizure
- Develops severe confusion
- Has chest pain or a markedly irregular heartbeat

Common questions

Are pokeweed berries poisonous?

Yes. Pokeweed berries contain toxic substances, although the concentration may be lower than in the root. Risk can increase when berries and seeds are chewed. Call a poison centre if a child or adult eats any berries rather than waiting for symptoms.

What should I do if my child ate a pokeweed berry?

Remove any remaining berry material, gently rinse the mouth, and call a poison centre. Do not cause vomiting. The poison specialist will consider the number of berries, whether they were chewed, the child's size, and any symptoms.

Is pokeweed poisonous to touch?

Touching the intact plant does not usually cause whole-body poisoning. Sap can irritate the skin, and toxins may be transferred from the hands to the mouth or eyes. Wear gloves when removing the plant and wash exposed skin.

How long does pokeweed poisoning last?

Digestive symptoms often improve within one or two days, but a larger exposure or severe dehydration can lengthen recovery. Persistent vomiting, diarrhea, weakness, or low urine output needs medical review.

Can properly cooked pokeweed be eaten safely?

Pokeweed has a history as a traditional food after repeated boiling, but home preparation cannot guarantee that enough toxin has been removed. Raw, undercooked, mature, or incorrectly identified plants can cause poisoning. Avoiding pokeweed is the safest choice.

Is there an antidote for pokeweed poisoning?

No specific antidote is available. Treatment focuses on replacing fluids, controlling symptoms, correcting electrolyte problems, and monitoring breathing, blood pressure, and heart rhythm when needed.

Sources

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