

Poison Ivy Allergy

“Leaves of three, let them be...”

is an old adage that many of us should heed, especially those who are allergic to poison ivy.



Allergic reactions to three native American plants—poison ivy, poison oak and poison sumac—all members of the plant genus *Toxicodendron*—have been sources of misery for many centuries. According to experts at the American Academy of Dermatology, approximately 85 % of the population will develop an allergic reaction if exposed to them.

ALLERGIC REACTIONS:

Approximately 12–48 hours after exposure to poison ivy, oak or sumac, in susceptible persons, contact with these plants leads to a skin rash. This is known as allergic contact dermatitis, which is an inflammation of the skin.

The resin of all three contains an active oily ingredient known as urushiol.

When you come into contact with the leaves or roots of the plants, you are

very likely to develop a rash. In some people, very small amounts of the chemical can provoke a serious reaction. These plants are very fragile plants whose stems and leaves broken by the wind, animals, or even the tiny holes made by chewing insects can release urushiol.

Cases of poison ivy allergy occur most frequently during the spring, summer and early fall when people spend more time outdoors. A reaction can develop even during winter because urushiol is still present in dead or decaying plants. The chemical can be carried in smoke particles from burning plants. The smoke may expose not only the skin of susceptible persons to the chemical but also their nasal passages, throat and lungs.

Urushiol is transferred easily from one object to another, so clothing or tools that touch the plants, or pets that rub against them, can pick up the plant oil and pass it directly to the person. The chemical can remain

active for at least one year and sometimes much longer. Therefore, exposed objects or pets should be thoroughly cleansed with water after contact with the plants.

Scratching or the spontaneous oozing of the rash and blisters will NOT cause them to spread because urushiol is not present in the blister fluid.

The chemical can remain active for at least one year and sometimes longer.

If the chemical has not been completely washed off the skin, touching the affected areas then another part of the body can transfer the chemical and thus the rash. The rash cannot be passed between persons, unless urushiol is still present on the skin of the affected individual.

Usually, no visible reaction will occur the first time a person comes in

The rash cannot be passed from one individual to another UNLESS the chemical urushiol is still present on the skin of the affected individual.

contact with poison ivy, oak, or sumac. Many times, one may not even realize that they have been in contact with it. If a rash does appear, it may be 7–10 days later. Repeated low-level exposures over a period of years are generally necessary for a person to reach this level of sensitization, and many people *never* develop an allergic contact dermatitis from poison ivy, oak, or sumac plants.

The resin of all three plants are not identical but are sufficiently similar for a person allergic to one to react to all three. They are members of the cashew family which includes several trees—cashew, mango, Japanese lacquer and Indian marking nut. Skin rashes have followed contact with wooden and lacquered articles produced in Asia and with the oil from the cashew nut shell.

What are the symptoms?

The itchy rash characteristic of an allergic reaction to poison ivy, oak, or sumac usually develops within 12-48 hours after a sensitized person comes in contact with the urushiol. The time may be as short as 4 hours or as long as 10 days, depending on one's sensitivity and the extent of the contact. The rash is usually self-limited. It is at its worst about 5 days after it starts, and gradually improves within a week or two even without treatment.

The skin becomes red, then bumps and blisters appear. This is usually accompanied by itching sometimes by swelling. After several days, the blisters break and the oozing sores begin to crust over and disappear. Scratching the rash may introduce bacteria into the open sore causing a secondary bacterial infection. Severe infections may produce symptoms such as abscesses, enlarged glands, and fever.

A person should see a physician if the rash is severe on the face or genitals, or covers more than 20% of the body. The physician may prescribe medications to reduce the itching and inflammation.

Revised September 2009

TREATMENT

- ◆ **USE SOAP & WATER:** Immediately after exposure, use soap and water to wash away the urushiol from the skin. If all the oil can be washed off the skin within 5 minutes of contact, there should be no reaction. In the woods, the water of a running stream can be an effective cleaner. Any clothing that might have come in contact with the resin should be washed before it is brought indoors, if possible. Be sure and wash off any garden tools, hunting or fishing gear, or other items including jewelry that may have been in contact with the plants.
- ◆ **APPLY WET, COLD COMPRESSES:** A person with a mild rash requires little or no further treatment. The sores will heal without treatment, but wet cold cloths applied to the skin may relieve any inflammation while the rash is still oozing.
- ◆ **CALAMINE LOTION:** Calamine lotion applied to the rash will help to relieve the itching and inflammation.
- ◆ **SHOWERS OR BATHS:** Cool showers or soaking in a lukewarm bath with oatmeal or baking soda added will help dry blisters and provide comfort.

PREVENTION

Recently the USFDA approved the use of bentoquatam, which is available over the counter to prevent poison ivy. It comes in a lotion that should be applied to the skin at least 15 minutes before exposure to poison ivy, poison oak, or sumac. It provides a barrier that protects or reduces the severity of the rash caused by the plants. Susceptible persons should reapply it every 4 hours for continued protection while they are at risk to becoming exposed to poison ivy, poison oak, or sumac.

Bentoquatam should not be used if people already have a rash from these plants or for children under the age 6.

UNIVERSITY HEALTH SERVICES
SAINT LIAM HALL
574-631-7497
Available 24/7 during the Academic Year

POISON IVY ALLERGIC REACTIONS



“Leaves of three...let them be.”

Interesting facts: Urushiol Oil is Potent

- Only 1 nanogram is needed to cause rash
- Average is 100 nanograms for most people
- ¼ oz. of urushiol would cause a rash on every person on earth
- 500 people could itch from the amount covering the head of a pin
- Specimens of urushiol several centuries old have caused dermatitis in sensitive people

UNIVERSITY OF NOTRE DAME
NOTRE DAME IN 46556
<http://uhs.nd.edu>