

Poison Ivy, Oak, and Sumac FactSheet

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Employers and employees should take precautions when working in and around wooded areas and in heavy foliage, because they may come in contact with poison ivy, oak or sumac. Approximately 90 percent of Americans are allergic to these plants that cause a bothersome rash and intense itching.

Touching the stems, roots, or leaves of these plants results in direct contact of skin with urushiol (pronounced oo-roo-shee-ohl) oil, which causes the itching.

The cause of the rash, blisters, and infamous itch is from the exposure to urushiol, a chemical in the sap of poison ivy, oak and sumac plants. Because urushiol is inside the plant, brushing against an intact plant will not cause a reaction. But undamaged plants are rare. Urushiol can stick to tools, shoes, clothes, or anything. Just touching them could cause a reaction in a susceptible person.



Poison Ivy

Sensitivity to urushiol can develop at any time. Almost all parts of the body are vulnerable to the sticky urushiol. Urushiol must penetrate the skin to cause a reaction. Places where the skin is thick, such as the soles of the feet and the palms of the hands, are less sensitive to the sap than areas where the skin is thinner.

Urushiol Oil is Potent

Urushiol oil is potent and it only takes a small amount to cause an allergic reaction.

- Only 1 nanogram (billionth of a gram) is needed to cause a rash.
- The average person is exposed to 100 nanograms per exposure.
- 1/4 ounce of urushiol is all that is needed to cause a rash in every person on earth.
- 500 people could itch from the amount covering the head of a pin.
- Specimens of urushiol several centuries old have been found to cause dermatitis in sensitive people.
- 1 to 5 years is normal for urushiol oil to stay active on any surface including dead plants.
- The name urushiol is derived from **urushi**, Japanese name for lacquer.

Myth	Fact
Poison Ivy rash is contagious.	Rubbing the rash won't spread poison ivy to other parts of your body (or to another person). You spread the rash only if urushiol oil - the sticky, resin like substance that causes the rash - has been left on your hands.
You can catch poison ivy simply by being near the plants.	Direct contact with the plants is needed to release urushiol oil . Stay away from forest fires, direct burning, and lawnmowers and trimmers when they are being used because they can cause the urushiol oil to become airborne.
Leaves of three, let them be.	Poison sumac has 7 to 13 leaves on a branch, although poison ivy and oak have 3 leaves per cluster.
Do not worry about dead plants.	Urushiol oil stays active on any surface, including dead plants, for up to 5 years.
Breaking the blisters releases urushiol oil that can spread.	Not true. However wounds can become infected and make the scarring worse. In very extreme cases, excessive fluid may need to be withdrawn by a doctor.
I've been in poison ivy many times and never broken out. I'm immune.	Not necessarily true. The more times a person is exposed to urushiol, the more likely they will break out with an allergic reaction. For the first time sufferer, it generally takes longer for the rash to show up - generally in 7 to 10 days.

Quick Action Needed

Because urushiol can penetrate the skin within minutes, do not waste time if exposed. The faster the victim's skin is cleansed, the greater the chance of removing

the urushiol before it gets attached to the skin. Cleansing may not stop the initial outbreak of the rash if more than 10 minutes has passed, but it can help prevent further spread.

If exposed to poison ivy, oak or sumac, if possible, stay indoors until the following steps are completed:

1. Cleanse exposed skin with generous amounts of isopropyl (rubbing) alcohol. (Don't return to the woods or yard the same day. Alcohol removes your skin's protection along with the urushiol and any new contact will cause the urushiol to penetrate twice as fast.)
2. Wash exposed skin with water. (Water temperature does not matter; if you're outside, its likely only cold water will be available.)
3. Take a shower with soap and warm water. Do not use soap before this point because soap tends to pick up some of the urushiol from the surface of the skin and move it around.
4. Clothes, shoes, tools, and anything else that may have been in contact with the urushiol should be wiped off with alcohol and water.

Wear gloves or cover hands while completing the steps and then discard the hand covering.

Dealing with the Rash

If the victim doesn't cleanse quickly enough, or the skin is so sensitive that cleansing didn't help, redness and swelling may appear in about 12 to 48 hours. Blisters and itching will follow. For those rare people who react after their very first exposure, the rash appears after 7 to 10 days. Because they don't contain urushiol, the oozing blisters are not contagious nor can the fluid cause further spread on the affected person's body. Nevertheless, scratching the blisters with the fingernails that may carry germs could cause an infection.

The rash will only occur where urushiol has touched the skin; it doesn't spread throughout the body. However, the rash may seem to spread if it appears over time instead of all at once. This is either because the urushiol is absorbed at different rates in different parts of the body or because of repeated exposure to contaminated objects or urushiol trapped under the fingernails.

The rash, blisters and itch normally disappear in 14 to 20 days without any treatment. But few can handle the itch without some relief. For mild cases, wet compresses, or soaking in cool water may be effective. Oral antihistamines can also relieve itching.

The U.S. Food and Drug Administration (FDA) also considers over-the-counter topical corticosteroids (commonly called hydrocortisones) are normally safe and effective for temporary relief of itching associated with poison ivy.

For severe cases, prescription topical corticosteroid drugs can halt the reaction, but only if treatment begins within a few hours of exposure. The American Academy of Dermatology recommends that people who have had severe reactions in the past should contact a dermatologist as soon as possible after a new exposure.



Poison Oak

There are a number of over the counter products to help dry up oozing blisters, including:

- aluminum acetate (Burrows solution);
- baking soda;
- Aveeno (oatmeal bath);
- aluminum hydroxide gel;
- calamine;
- kaolin;
- zinc acetate;
- zinc carbonate; and
- zinc oxide.

Desensitization, vaccines, and barrier creams have been studied over the last several decades for their potential to protect against poison ivy reactions, but none have been approved by the FDA for this purpose.

For the Rash:

Hydrocortisone creams or sprays reduce the inflammation, swelling, and itching of poison ivy rashes. They should be used four times a day for best effect. Lotions containing calamine, zinc acetate, and alcohol dry the blistered rash quickly and can speed healing.

A rash can last 1-4 weeks. Treatment is directed at the intense itching, and shrinking the rash. Treating the itching is especially important, since scratching can lead to skin infection.

Antihistamines are available as topical (cream, lotion, or spray) or oral. The oral forms are probably more effective, but can cause drowsiness. Topical antihistamines are less effective and can cause a rash of their own in some people.

Drying agents like calamine or other lotions are very soothing and speed healing of the rash. Menthol, benzocaine, and pramoxine are topical anesthetics to “numb” the itchy rash. They work well, but they must be applied often. Cool soaks in baking soda, commercial oatmeal, or colloidal baths for 15-30 minutes can relieve itching for several hours at a time.

Signs of an Emergency

About 15 percent of the 120 million Americans who are allergic to poison ivy, oak, and sumac are so highly sensitive to the plants that they break out in a rash and begin to swell in 4 to 12 hours instead of the normal 24 to 48. Their eyes may swell shut and blisters may erupt on their skin. **This is an emergency. Call EMS or 911 and get them to a hospital as soon as possible.**

Controlling Poison Ivy, Oak and Sumac

Poison ivy, oak, and sumac control, can be done at any time of the year, but is best achieved May through July while the plants are flowering. Poison ivy, oak, and sumac should be accurately identified before attempting any control measures. *Spraying is recommended over burning because poison ivy oil vaporizes when hot, carries in smoke and can cause an allergic reaction and a severe rash.*

Poison ivy, oak, and sumac foliage within reach can be sprayed with glyphosate (sold under the trade names Roundup, Kleenup and others) according to label directions. When using this or any herbicide, always read and follow label directions carefully. Take care to avoid other plants and do not spray so heavily that the herbicide drips off the leaves. Glyphosate is a nonselective herbicide and will kill any vegetation it contacts.

To kill poison ivy, oak, and sumac that climb high into trees, cut the vine off 6 inches above ground level.

Treat the stump with glyphosate (according to label directions) immediately after cutting to kill the roots and prevent sprouting. If resprouting does occur, treat the leaves with glyphosate.

Poison ivy, oak, and sumac can be very persistent, so vines may have to be sprayed two or more times for complete control. Poison ivy, oak, and sumac can spread along fence or hedge rows and under trees by birds dispersing the seeds. Treating young seedlings with glyphosate will kill them and limit the spread of the plant(s).

It is recommended that when working in wooden areas and in heavy foliage, that workers wear long pants, long sleeves, boots, and plastic under cotton gloves for protection.

Remember to practice safety, don't learn it by accident.

This fact sheet was published with information from the U.S. Food and Drug Administration, the Poison Ivy Information Center, the Missouri Department of Conservation and the Texas Department of Insurance, Division of Workers' Compensation.



Poison Sumac

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