



# Poison Ivy

## A Toronto Master Gardeners Guide

### Description



Take care when you see the characteristic “leaflets of three” of poison ivy.

Photo: Helen Battersby

Poison ivy (*Toxicodendron radicans*, previously *Rhus radicans*) is a woody perennial that grows as a bushy, erect or trailing shrub or as a woody climbing vine, ranging from 60 cm to 2 m (2 to 7 ft) tall. It is aggressive and can thrive in a variety of conditions, including light shade to full sun, moist or dry areas, and many soil types.

All parts of the plant contain the plant oil urushiol (also called toxicodendrol), which causes allergic dermatitis in humans. Only primates (humans, monkeys) and hamsters are known to react to poison ivy. Other animals appear to be immune.

### Identification – “Leaflets three, let it be”

Poison ivy leaves are compound, with 3 leaflets (small leaves) occurring alternately along each stem. Stems are long, up to 35 cm (14 inches). Leaflets may be smooth or toothed, rounded or pointed, and glossy or dull. The undersides of leaves may be smooth or hairy. The leaflets contain many veins and vary in size, up to 10 cm (4 inches) long.

When mature, the leaves are usually a dark, glossy green on the top and slightly hairy on the underside. Leaves are reddish in spring when they emerge and change to various shades of yellow, orange or red in autumn. The plant flowers for around 2-3 weeks in late spring to mid-summer, with small, whitish or greenish flowers often hidden by the leaves. Dull white or gray waxy berrylike drupes, each containing a single seed, replace the flowers.

Poison ivy may be confused with members of the same family, poison oak and poison sumac, both of which also contain urushiol. It may be confused with other harmless plants with leaves comprised of 3 leaflets, including clematis, ground nut, raspberry or blackberry, Manitoba maple seedlings (same as box elder, *Acer negundo*), and Virginia creeper. Although these plants can be easily distinguished from poison ivy, when the identity of a plant is in doubt, avoid touching it.

### Life Cycle and Habits

Poison ivy is often found in large colonies. The plant spreads by means of seeds or underground stems (woody rhizomes) that can extend up to a few metres from the parent plant. Birds and deer eat the berries and spread the seeds. In spring the reddish leaves appear on old stems or on new ones that rise from stolons. After the leaves expand they take on their characteristic shiny, dark green colour.

### Symptoms of Poison Ivy Toxicity

Contamination by poison ivy can occur through direct contact with any part of the plant (even if the plant is dead), indirect contact such as handling



A colony of poison ivy edges a walking trail.

Photo: Helen Battersby

contaminated clothing, pets, or garden tools, or by exposure to smoke from burning plant parts.

Dermatitis is initially limited to the site of contact but may spread through activity (any activity such as scratching will cause the urushiol to spread). Although humans may not contract the dermatitis on first contact, most are sensitized the first time. Symptoms of poison ivy dermatitis appear in 4 to 96 hours after exposure in previously sensitized individuals, and in 7-10 days in those who react after first exposure. Most commonly, initial symptoms are intense itchiness and redness. This is followed by papules and /or blisters, which often appear in a linear pattern or as streaks, where the plant has contacted the skin. The reaction can be relatively mild or can include severe swelling and oozing blisters. The rash is only spread through the oil. You can't catch a rash from someone else by touching the blister fluid.

It may take up to 3 weeks for the rash to resolve and up to 6 weeks in severe cases. The usual symptoms of the rash are:

- Itching
- Red streaks or general redness where the plant brushed against the skin
- Small bumps or larger raised areas (hives)
- Blisters that may leak fluid

Some people are very allergic to the oil. In these people, even a little bit of the oil may cause serious symptoms that need medical attention right away, such as:

- Trouble breathing
- Swelling of the face, mouth, neck, or genitals and the eyelids may swell shut
- Widespread, large blisters that ooze a lot of fluid



The plant makes white berries which can persist after the leaves drop, giving you another potential warning sign.

Photo: Helen Battersby

## Treatment

Immediately after contact with poison ivy, wash the affected area with copious amounts of water (a shower is best) and soap to remove as much urushiol as possible, including under fingernails. Dress in a complete change of clothing.

***Contact the local poison control centre for further treatment recommendations.***

If you get a mild rash, you can take care of it at home:

- Apply a wet cloth, or soak the area in cool water
- Use calamine lotion to help relieve itching
- Try not to scratch the rash. Scratching could cause a skin infection

The following medicines can sometimes cause allergy problems of their own. Do **not** use them without first consulting with a doctor.

- Antihistamines applied to the skin (topical), such as diphenhydramine (found in Benadryl cream, spray, or stick)
- Topical anesthetics that contain benzocaine (such as Lanacane)

- Topical antibiotics that contain neomycin (such as Neosporin)

Wash any clothing that has come in contact with poison ivy, separately from other clothes, in hot and soapy water. Hang clothes to dry for several days. Wipe contaminated items (e.g., shoes, laces, tools) with rubbing alcohol (isopropyl alcohol). Bathe pets exposed to the toxin (wear heavy duty vinyl gloves, use pet shampoo).



Bright red foliage can make poison ivy easy to spot in fall.

Photo: Helen Battersby

## Management/Control Strategies

Learn how to identify species causing this allergic response. Avoid all contact if possible. Point out the plant to children so that they can identify the plant and avoid it. Wear protective clothing (e.g., long pants and shirts with long sleeves) when in areas where poison ivy may grow, or when handling the plant (here, protective heavy-duty vinyl gloves are a must; do not use rubber or latex gloves, as urushiol can penetrate these).

If the plant is in an area that is frequently used (e.g., back yard) dig out the roots — the bright red foliage after a frost makes autumn a good time to look for poison ivy. Dispose of the plant in the garbage — NEVER burn it, as the smoke from burning poison ivy contains the urushiol oil and can irritate lungs and nasal passages as well as skin and eyes. Care must be taken when digging out the plant as the oil may also be vaporized, or sprayed out like an atomizer, from fresh plants as they are being cut.

Urushiol stays active on surfaces (including dead leaves) for up to five years.

Stay away from forest fires or areas where burnings may cause the urushiol to become airborne.

## References

[US Food & Drug Administration's Outsmarting Poison Ivy and Other Poisonous Plants](http://www.fda.gov/ForConsumers/ConsumerUpdates/ucm049342.htm) <http://www.fda.gov/ForConsumers/ConsumerUpdates/ucm049342.htm>

[Michigan State University. MSU Extension. Identifying poison ivy isn't always easy to do.](https://www.canr.msu.edu/news/identifying_poison_ivy_isnt_always_easy_to_do)  
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[OMAFRA. Poison ivy factsheet](http://www.omafra.gov.on.ca/english/crops/facts/99-015.htm)  
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