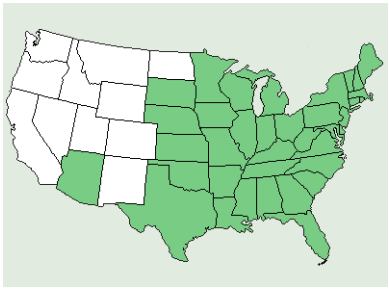
U.S. Army Public Health Command (Provisional)
formerly U.S. Army Center for Health Promotion and Preventive Medicine

18-047-0110
January 2010

Just the Facts...

Eastern Poison Ivy



Range. Eastern poison ivy occurs in all states east the Mississippi River and its range extends westward to states in the southern Cascade Mountain, Great Basin, and Mojave Desert regions.

Eastern poison ivy is commonly found growing along roadside thickets, stone walls, fences, railroads, clearcuts, and orchards, and thrives in both rural and urban areas throughout the eastern United States. Plants are poisonous at all times of the year and at all stages of growth. All parts of the plant, except the pollen, contain urushiol, a toxin that causes irritation and blistering of the skin. To cause injury, urushiol must contact the skin, either directly by touching the plant, or indirectly by touching things that have touched the plant such as clothing, tools, animals, or firewood. Although some skin-applied products are marketed that claim to protect against or reduce the severity of dermatitis, the best prevention is to learn to recognize eastern poison ivy and always avoid it.

Q. What does eastern poison ivy look like?

A. Eastern poison ivy (*Toxicodendron radicans (L.) Kuntze* is a woody, perennial plant that often grows as a vine. The leaves are arranged in groups of three leaflets, and are usually 2" to 8" long, 1" to 5" wide, and arranged alternately along the stem. The leaflets are ovate to elliptic in outline, and the edges can be lobed, smooth or toothed. The upper side of a leaflet is usually fairly smooth, and may be either a dull or glossy green in color. The lower surface is light green and slightly hairy. When leaflets first appear in the spring, they are shiny, reddish-green in color. In the fall, leaves turn various shades of red, orange, and yellow before turning brown. Flowers are clustered and small, and are yellowish in color. The fruit is small and round, and ranges in color from yellowish-green to whitish-gray. Plants are reproduced from seeds in the fruit (often eaten and dispersed by birds), and underground rhizomes (roots).

"Leaves of Three, Let Them Be". This maxim is a good rule of thumb to follow for eastern poison ivy identification and avoiding contact with the plant. Poison ivy is readily identified by the leaves, which grow in groups of three on a common stem (left). Each leaf is made up of three leaflets, often notched at the edges. Young leaves are shiny red, turning to shiny green (top, right). Small greenish flowers grow in bunches attached to the main stem (bottom, right).

Growth Habits – Eastern poison ivy can grow as a low ground cover (bottom, right), a small shrub up to 6 feet in height (bottom, left), or a high-climbing woody vine up to 150 feet in length (top, right). Using aerial roots, poison ivy vines climb straight up a tree without winding around the trunk (top, left).

Q. Where and how does eastern poison ivy grow?

A. Eastern poison ivy occurs in all states east the Mississippi River, and its range extends westward to states in the southern Cascade Mountain, Great Basin, and Mojave Desert regions. Where it grows and how it looks can vary. It can be encountered in a wide variety of habitats, from moist and shady to open and dry. Eastern poison ivy can grow as a self-supporting woody shrub, as a thin, trailing vine running along the ground, or as an aerial-rooted vine, growing on shrubs, trees, power poles, and fences. Aerial vines can be several inches in diameter, grow as high as 30-feet, and often have a wooly or fuzzy, rope-like appearance.

Q. Why is it important not to come in contact with eastern poison ivy?

A. All parts of eastern poison ivy plants, except the pollen, contain a toxic, oily substance, called urushiol (pronounced "you-ROO-shee-ol"). It is present in the plant throughout the year. Urushiol causes irritation and blistering of the skin. To cause dermatitis, the oil must contact the skin, either directly by touching the plant, or indirectly by touching things that have touched the plant such as gloves or other clothing, tools, animals, water, or firewood. The dermatitis is apparently an anaphylactic reaction; that is, it occurs only after sensitization by previous exposure. Individual sensitivity can vary from extreme susceptibility to near immunity. Many people are immune when young, but suddenly or gradually become sensitive with age, possibly due to sensitization through repeated exposure. Symptoms from exposure usually appear within 12 to 24 hours, but may appear in as little to 3 or 4 hours or be delayed for several days.

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Q. What can I do if I suspect that my skin or clothes have been exposed to urushiol?

A. After contact with urushiol , it usually takes a little while for it to penetrate the skin. Washing thoroughly within 5-10 minutes after contact can significantly reduce likelihood/severity of dermatitis. Wash the exposed skin with soap and cold water, followed with rubbing alcohol or a solution of water and alcohol in equal proportions to dissolve the unabsorbed urushiol. Rinse thoroughly, since this solution only flushes away the poison, and does not inactivate it. Urushiol can remain active on contaminated clothing, bedding, tools, and other surfaces for years. Ordinary hot temperature laundering will usually get rid of urushiol on fabrics. Thoroughly rinse with water any contaminated tools or equipment.

Contact Dermatitis - Symptoms such as skin itchiness, swelling, inflammation, and the formation of blisters usually appear within 12 to 24 hours after contact with the sap of eastern poison ivy.

Q. How can I protect myself against the dermatitis caused by eastern poison ivy?

A. The best prevention is recognition of eastern poison ivy plants and appropriate avoidance. Barrier crèmes containing 5% bentoquatam, are the only FDA-approved, skin-applied products that have been proven to protect against or reduce the severity of the rash caused by eastern poison ivy, when applied at least 15 minutes prior to exposure.

Q. What are some of the common myths associated with eastern poison ivy?

FICTION	FACT
You can become immune to the effects of eastern poison ivy by eating the leaves.	**Immunity not conferred by eating any plant part; ingestion can cause serious gastric disturbance.**
The rash from eastern poison ivy is contagious; breaking the blisters will spread the rash.	**Blisters contain only body fluids; they cannot spread the rash on the skin or to other people.**
You can develop a rash from eastern poison ivy simply by being near the plants.	**Rash results only if urushiol touches skin; airborne contact possible if burning/mowing plants.**
It is safe to handle dead plants or dormant plants during the wintertime.	**Plants are poisonous year-round; urushiol stays active on surfaces and in dead plants for 2 years.**
If you don't develop a rash after touching eastern poison ivy once, then you must be immune.	**First exposure seldom produces rash; sensitivity can change with age and repeated exposure.**

Q. How can I eliminate eastern poison ivy from my property?

A. The presence of eastern poison ivy should not be tolerated around child day care facilities or schools, and can be a significant nuisance when present in the landscaping outside dwellings and workplaces. Consult with Preventive Medicine Activity personnel at your supporting clinic to identify suspect plants found around a building. Seek the assistance of the Installation Pest Control Office before applying herbicides for eastern poison ivy control.

Nonchemical Approaches. Young shoots can be repeatedly mowed or cut until the energy stored in the roots is exhausted and the plants die. Vines that are climbing trees may be cut and pulled away from the trees. When the soil is wet, the roots can be dug up and pulled out of the soil. All the roots must be removed to achieve eradication. Dispose of plant parts where they cannot contaminate people or animals. Never try to destroy poison ivy with fire. When a poison ivy plant is burned, urushiol goes into the air on the dust and soot in smoke, and this can result in an allergic reaction in the eyes and respiratory tract or on the skin.

Chemical Approaches. Herbicide products that contain the active ingredient glyphosate or triclopyr are two of the most effective tools for eastern poison ivy elimination around a property. Sprays must contact the leaves to be effective. However, care must be exercised when using these herbicides, since most shrubs, broadleaf ground covers, or herbaceous garden plants which are contacted by the sprays will be killed. It is possible to spray eastern poison ivy without killing other plants if you pull the vines away from the desirable plants and wipe the ivy foliage with the herbicide, or use a shield on the sprayer to direct the chemical.

References:

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