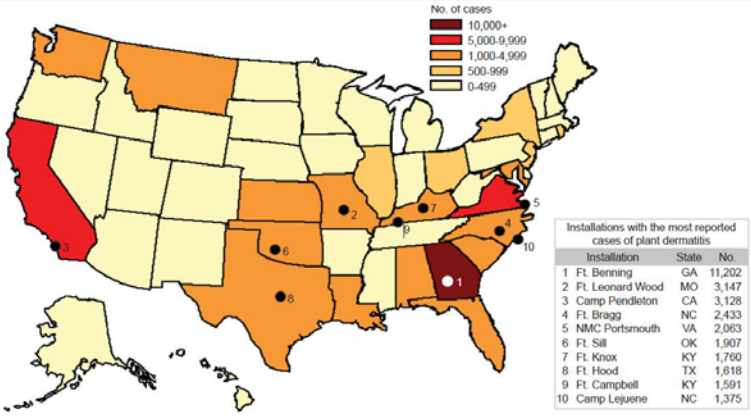
Poison Oak

FACT SHEET 18-046-0618

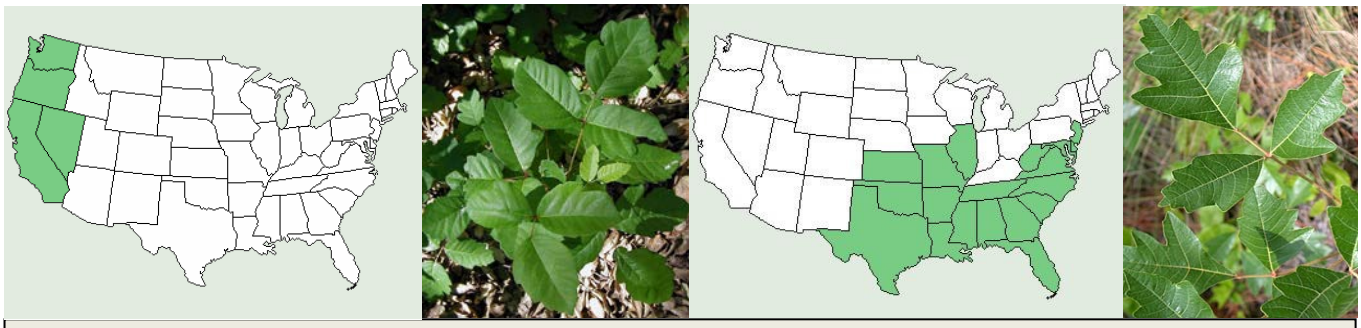
Military Service members live and train in areas where poison oak grows. Contact with poison oak causes an allergic reaction; approximately 80% of the service members who contact poison oak, ivy or sumac, will experience an itchy, red rash with bumps and blisters (referred to as plant dermatitis). The risk of contact with poison oak is highest during the summer; however, plant dermatitis affects U.S. military members throughout the year. Approximately one out of ten Service members diagnosed with plant dermatitis will have a second case. Personnel can prevent plant dermatitis by learning to recognize poison oak and avoiding contact with the plant.



By-state map showing cases of plant dermatitis caused by poison oak, ivy, and sumac including the ten active duty military installations with the highest number of reported plant dermatitis cases from 2001-2010. Map: Armed Forces Health Surveillance Center, MSMR, Vol. 18 No. 07, July 2011

How do I identify poison oak?

Two species of poison oak are found in the United States. Pacific poison oak (*Toxicodendron diversilobum*) grows as a multi-stemmed shrub or woody vine. Shrubs are erect with stems from 2 to 6 feet tall. Vines climb trees, fences or buildings, growing 10 to 30 feet, but can grow as long as 100 feet. The leaves are bright green in the summer (reddish in the fall) and usually have three, round to ovate, diversely lobed or toothed leaflets resembling small oak leaves. Atlantic poison oak (*Toxicodendron pubescens*) also known as "oak-leaf ivy" or "oak-leaf poison ivy", is a woody, perennial plant that occurs as a low-growing shrub (average height 2 to 4 feet, maximum 10 feet). Atlantic poison oak does not climb like a vine, but rather stands alone as a shrub with upright stems. Leaflets occur in threes, and are variable in size and shape. The middle leaflet is usually symmetrically lobed on both sides resembling a small oak leaf, while the two lateral leaflets are often irregularly lobed. Each leaflet is about 6 inches long, shiny above, and velvety beneath. Leaves are generally bright green in the spring (or bronze when first unfolding), yellow-green to reddish in the summer, and bright red or pink in the fall. Both plants have small, yellow-white flowers that develop into greenish-white or tan-colored berries arranged in slender clusters. Plants reproduce from fruit seeds and sprouts from creeping rootstocks.



Distribution and photos of the two poison oak species found throughout the U.S. Green areas on map show where the plants are found. Pacific poison oak (**left**) and Atlantic poison oak (**right**). Maps and photos: Jeff McMillian, hosted by the USDA-NRCS PLANTS Database of USDA. The PLANTS Database. National Plant Data Team, Greensboro, NC. (2012, 3 January)

Where does poison oak grow?

Both species of poison oak can be encountered in a wide variety of habitats within the U.S., from shady and moist, to open and dry areas. Within its specific range, it is commonly found growing where established vegetation has been disturbed by cultivation, construction, road building, or wildfires. It is also commonly found in wood lots, rangelands, training, and recreation areas.

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Why is it important not to touch poison oak?
Poison oak contains a toxic oil called **urushiol**, pronounced "you-ROO-shee-ol". This toxic oil causes dermatitis in sensitive people. Urushiol is produced in all parts of the plant (except the pollen) in all growth stages and times of the year (even in dead and dormant plants). It is never safe to handle the plant without protection.

Plant dermatitis: In sensitized individuals, symptoms such as itching, swelling, and blistering appear after contact with urushiol. Photo: DermNet.com

What are the signs and symptoms of plant dermatitis?
After contact with urushiol, sensitized personnel will experience extreme skin irritation and blisters called plant dermatitis. The oil must touch the skin to cause dermatitis, which can either happen directly by touching the plant, or indirectly by touching surfaces contaminated with the plant's oil such as gloves, clothing, shoelaces, tools, animals, or firewood. Individual sensitivity can vary from extremely sensitive to nearly immune in a few individuals. Consult a medical professional for plant dermatitis diagnosis and treatment.

Symptoms from exposure usually appear within the first 12 to 24 hours, but may appear in as little as 3 to 4 hours or be delayed for several days. Many people are immune when young, but suddenly or gradually become sensitive as they get older, possibly due to multiple exposures to the oil. There is no way to make yourself immune to poison oak; **never eat any part of the plant**, which can harm your digestive tract, damage your airway, and may result in death.

What can I do if I suspect that my skin or clothes have contacted poison oak?
Wash skin thoroughly with soap and cold water within 5 to 10 minutes after contact with poison oak to reduce the likelihood and severity of a dermatitis reaction. After washing, wipe the area with rubbing alcohol or a solution of 50% water and 50% alcohol to dissolve the unabsorbed urushiol. Again, rinse thoroughly, since this solution only flushes away the oil, and does not deactivate it. Rubbing the rash won't spread poison oak to other parts of your body or to another person.

Caution: 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. Contaminated tools, equipment, and surfaces should be thoroughly cleaned with soap and water to prevent re-exposure.

How can I eliminate poison oak from my property?
Poison oak in the landscaping outside homes and workplaces is a significant nuisance. Contact preventive medicine services or the installation pest control office about poison oak control. **Use extreme caution if trying to control poison oak on your own. Always wear protective clothing to prevent skin contact with poison oak and thoroughly wash hands, clothing, and tools after using either method described below.**

Nonchemical Control: Poison oak can re-grow from the roots, so root removal is essential to control poison oak. The roots can be pulled or dug up while the ground is wet. Alternately, young shoots can be cut down repeatedly until the energy stored in the roots is exhausted and the plant dies. Pacific oak vines can be removed from trees, walls, and other upright structures by cutting them at the base and pulling them off of their support. Dispose of plant parts where they will not contaminate people or animals. Never try to destroy poison oak with fire. Urushiol can become airborne if poison oak is mowed or burned, and can cause an allergic reaction on/in skin, eyes, throat, and lungs, and could result in death.

Chemical Control: Follow all label instructions according to each individual product. Herbicides for poison oak may contain the active ingredients glyphosate, triclopyr, 2,4-D, and/or dicamba. These herbicides must be sprayed onto the leaves, stems and trunk to be effective. Use caution when applying these products in a garden or landscape setting because they will also kill most shrubs, broadleaf ground covers, and herbaceous garden plants. It is possible to spray poison oak without killing other plants if you pull the branches away from the desirable plants and wipe the foliage with the herbicide, or shield the other plants from the chemical. Use caution when disposing of dead plants; they still contain urushiol.

Where can I get more information about poisonous plants?
Centers for Disease Control and Prevention: http://www.cdc.gov/niosh/topics/plants/
U.S. Food and Drug Administration: http://www.fda.gov/ForConsumers/ConsumerUpdates/ucm049342.htm