

Poison Oak and Poison Ivy: Know Your Enemy, Prevent the Misery

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Becky finally took a day trip hiking in the woods learning to identify Washington native plants. She brought her dog Scooter to keep her company. On the way home, she started to itch. The next day, her face became red and puffy. Streaks of blisters started to form on her arms and legs, and continued to develop over the next 24 hours. Later in the week, her husband developed the rash on his hands and arms, but, mysteriously, he had stayed home.

Becky was so miserable she resorted to consulting her neighbor, the dermatologist/budding master gardener. The neighbor declared that Becky and her husband had poison oak dermatitis. The husband got the rash from Becky's contaminated clothes and by petting Scooter. Becky remembered having this kind of rash when she was a kid growing up in Kentucky, but it was called "poison ivy."

Two weeds are the cause of the majority of allergic reactions to plants in this country. Poison oak (*Toxicodendron diversibolum*) is a native plant that grows in the western United States as a low shrub or vine in dry woods, near hiking trails, streams, roads and agricultural orchards. Poison ivy (*Toxicodendron radicans*) grows as a vine traveling up tree trunks, growing around fence posts, up the sides of houses. It is considered a problem in the eastern half of the United States but some feel it is a problem even in the western part of this country. Poison ivy is found east of the Cascades in Washington. Both plants develop flowers and berries and have characteristic leaves that turn bright red in the fall. The leaves usually appear in clusters of three. Forest firefighters, forestry and agricultural workers have severe problems with exposure to the plants in their line of work.

Poison oak or ivy dermatitis is a rash caused by an allergy to urushiol, an oil present in the sap of both plants. When the plant is traumatized (which occurs when you walk through a thicket), the colorless oil surfaces on the leaves and stems. This oil may turn black when exposed to air. Urushiol adheres to any surface including skin, clothes, camping gear, tools, dog fur, etc. Urushiol binds with the skin's natural oils and can penetrate the skin within 15 minutes. The oil can persist on the surface of objects, such as camping equipment, boots and clothing, and if not cleaned properly, can cause repeated allergic reactions for years.

The very first exposure to the urushiol oil on the poison oak or ivy plants typically does not cause a rash. At this point, the person becomes sensitized. The next exposure to the plant may cause an allergic reaction within 24-48 hours. It may take days for the blistering rash to develop entirely, depending upon the part of the body exposed, and the thickness of the skin. A rash on the face can develop within 24 hours, whereas legs and arms may take longer. It usually takes 3 weeks for the rash to clear completely. Urushiol

is not present in the blister fluid. This means that the rash is not spread by scratching or exposure to another person's blisters.

Some people are very sensitive to urushiol developing severe blistering skin reactions. Up to fifteen percent of the population never develops an allergy to urushiol. A person's sensitivity changes over time and as one grows older they may become less sensitive. Humans and higher primates are the only species who develop allergies to urushiol.

The oil needs to be removed from the skin by washing with soap and water in the first few minutes after exposure. Be sure to clean under the fingernails. Clothes need to be rinsed with large quantities of water and then washed with detergent (separately from the other clothes). Isopropyl alcohol can be used to decontaminate small pieces of camping gear, boots and small tools. Washing with detergent and water is necessary for larger items. Wear heavy-duty vinyl or nitrile gloves, not rubber gloves, to handle contaminated clothes or tools. Urushiol can penetrate rubber. Use gloves to give Scooter a bath.

There are safe ways to remove poison oak/ivy from one's property if this is a problem. Do not burn the plant. The oil is not destroyed and is present on the fine ash in the smoke. Contact with and inhalation of the smoke particles can cause severe facial rashes and breathing problems. The Safety and Health Assessment and Research for Prevention (SHARP) Program with the Washington State Department of Labor and Industries (L & I) has a free brochure and color poster on poison oak/ivy in Spanish and English. The materials were developed in cooperation with the Washington State University Cooperative Extension Services and the University of Washington's Pacific Northwest Agricultural Safety and Health Center. Approved methods of removal of the plant are discussed in the brochure.

As far as protection goes, learn to recognize the plant and avoid it. Wear boots, long sleeves and pants when hiking and gloves when working around the plants to avoid contact with the oil. If exposure does result in a rash, over the counter remedies may bring relief. A rash can be treated with Calamine lotion or Burrow's solution to help dry the blisters. Cool showers, oatmeal or baking soda baths and taking oral antihistamines can help relieve the itching. A severe rash with large blisters or swelling of the face and eyelids may require a doctor's attention. Remember, it is also your clothes, tools, camping gear and your pets that may be the culprits when other members of the family develop the rash when there was no apparent exposure to the plant.

Christina Marino is a dermatologist and a graduate of the King County Master Gardener Class of 2000 Program. The poison oak and ivy brochure and poster can be obtained by calling 1-888-66-SHARP. More information on occupational health issues can be found on the SHARP website at <http://www.lni.wa.gov/sharp/derm>.