



Public Health Information Sheet

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Web Resources

NPS Public Health:
http://www.nps.gov/public_health/

CDC:
<http://www.cdc.gov>

State and Local Health Departments:
<http://www.cdc.gov/mmwr/international/relres.html>

POISON IVY AND ITS KIN

Most of us have had the unpleasant experience of "Rhus" dermatitis from poison ivy and/or poison oak or possibly from poison sumac. About 60-80% of us are sensitive to the oily sap present in the roots, stems, leaves and fruit of these plants. Most people develop symptoms within hours to one or two days. The first symptom is severe itching of the skin. This is followed by redness and blistering. In more severe cases, large blisters and localized swelling occur. Severe cases may require hospitalization. The severity of symptoms vary greatly depending on the amount of sap contacting the skin and individual sensitivity. Although the dermatitis is extremely irritating, symptoms usually disappear in about a week.

We come into contact with the oily sap when we bruise the epidermis (skin) of these plants. Exposure tends to be worse in the spring and early summer when the leaves are still tender. We can be exposed indirectly from contaminated clothing, tools, sporting equipment such as fishing gear and golf clubs, and pets. We also can be exposed when these plants are burned. This is the most serious form of exposure with airborne sap-coated soot getting into the eyes, nose, throat and respiratory system.

The sap has to penetrate the skin surface and bind with protein before dermatitis can occur. After the antigen is fixed, it cannot be washed off or transferred to other areas by scratching or oozing blister fluid. New blisters represent less sensitive areas or areas where less sap was deposited. The most severe poisoning affects areas with thin skin. Symptoms are less severe or do not occur at all in areas with thick skin or heavy hair.

It only takes 10-15 minutes for the sap to penetrate the skin and bind with protein. Therefore it is important to wash infected skin as soon as possible with cold water to minimize the severity of the rash and prevent the spread of the sap to uninfected parts of the body. Soap and water are superior to water alone in removing the sap. Don't wash with solvents such as alcohol since they tend to spread Rhus sap to unaffected areas.

Recognition

Recognition is important to avoid contact with these plants when possible. It also is important so that sap can be removed from the skin as quickly as possible after accidental contact with these plants has occurred.



Poison Ivy

Either a small shrub or a vine trailing along the ground or climbing on low plants, trees and poles. The leaves are alternate with three pointed and glossy leaflets. The edges of the leaflets may be smooth or toothed, but they are rarely lobed. They are reddish when they first emerge in the spring, are green during the summer, and are various shades of yellow, orange, red, or bronze in the autumn. Greenish-white flowers and whitish-yellow fruit in hanging clusters.

Poison ivy is found throughout the U.S. except along the western coast. Most common in disturbed areas, edges of woods, flood plains, lake shores, stream banks, along fences



Poison Oak

Similar to poison ivy except its three leaflets are lobed or deeply toothed with rounded tips.

In the east, mostly restricted to sandy soil, dry barrens, sand hills, and oak-pine or pine woods. In the west, in low places, thickets and wooded slopes.



Poison Sumac

A tall shrub or small tree with alternate leaves with 7-11 leaflets arranged in pairs, and an additional single leaflet at the end of the midrib. Yellowish green flowers and whitish green fruits hang in loose clusters.

Poison sumac grows in standing water in bogs, swamps and river bottoms. Most common in the Great Lakes area, and eastern coastal plain.

Prevention

The best way to prevent Rhus dermatitis is to avoid contact with these plants. If you think you might come into contact with them, wear a long sleeve shirt and full length pants. If you have to handle poison ivy or its kin, wear impermeable gloves. Remove and immediately wash clothing, gloves and boots or shoes in detergent or soap.

Examples of commercially available products that seem to be effective in blocking skin contact with the sap and removing the sap for two or more hours after exposure are Armor® and Tecnu®, respectively. These products are manufactured by Tec Laboratories. They are available at many pharmacies and shops that cater to hikers and campers.

Treatment

Relief can be found through the application of medication available in most drugstores. These include topical steroid creams and calamine-containing lotions and salves that help dry the blisters. Severe rashes, especially those covering large areas or accompanied by fever should be examined by a physician.

References

Human Poisoning from Native and Cultivated Plants, Hardin, J.W., and Arena, J.M., 1974, 2nd. Ed., Duke University Press, Durham, NC, 194 pps.
AMA Handbook of Poisonous and Injurious Plants, Lampe, K.F. and McCann, M., 1985, American Medical Association, Chicago, IL, 432 pps.
Health Information, National Center for Infectious Diseases, Centers for Disease Control and Prevention, Department of Health and Human Services.

If you have any questions, please contact a Regional Public Health Consultant, park sanitarian or call WASO Public Health.

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