

CONTACT DERMATITIS



Inflammatory eczematous skin disease due to exposure to substances in the environment

Irritant vs Allergic

Irritant

- Non-specific response of the skin due to direct chemical damage, which in turn releases mediators of inflammation.
- Likelihood of developing irritant dermatitis increases with duration, intensity, and concentration of the affecting substance.
- Chemical, physical agents, and micro-trauma all may produce skin irritation.
- Contact can precede rash by hours-days.
- May result in dryness, erythema, and fissuring of the affected area.



Allergic

- Delayed (type 4) hypersensitivity reaction due to contact with exogenous antigens.
- T-cell mediated inflammation of the skin caused by repeated skin exposure to haptens in a sensitized individual
- Haptens: small molecules that combine with a larger carrier (ex. protein) which can elicit the production of antibodies
- Contact can precede rash by 1-4 days.
- An individual may experience itching, burning, and/or stinging.
- Involved areas may be erythematous, warm to the touch, swollen, and can be confused with cellulitis.
- You can develop a reaction to a product you have consistently used for years.



Diagnosis

- The key to diagnosis is the pattern of rash:
 - typically linear or geometric
 - **Acute**: presents with vesicles and bullae
 - **Chronic**: presents as lichenified plaque

Treatment Options

Following exposure:

- Wash the skin with plain water or mild soap within 15 minutes of exposure with poison ivy, poison oak, or poison sumac dermatitis.
- Cool or cold water compresses for 20-30 minutes 5-6 times a day for the initial 72 hours are effective during the acute blistering stage.

Topical:

- Topical steroids are effective for acute localized allergic contact dermatitis lesions.

Oral:

- Oral corticosteroids are typically reserved for severe, widespread dermatitis.
- Oral antihistamines can control itching.

Tips for Patients:

- Avoid suspected allergens
- Colloidal oatmeal (Aveeno) baths and cool compresses can provide symptomatic relief
- Reduce risk for developing contact dermatitis from washing hands by using a fragrance-free hand cream afterwards and using a hand sanitizer with moisturizer

Facts

- 20% of all cases of dermatitis in children are caused by allergic contact dermatitis.
- Rhus dermatitis (poison ivy, poison oak, and poison sumac) is responsible for most cases of contact dermatitis.
- Frequent cases of irritant contact dermatitis are soaps, detergents, eye drops, and organic solvents.
- Some jobs have an increased risk (Ex. florists)