

# CONTACT DERMATITIS

Contact dermatitis is a condition in which the skin becomes red, itchy, sore, or inflamed after direct contact with a substance. There are two distinct categories: Irritant contact dermatitis (ICD) and Allergic contact dermatitis (ACD).



## CAUSES

### Irritant Contact Dermatitis

Irritant contact dermatitis is the most common type. It's caused by contact with acids, alkaline materials such as soaps and detergents, fabric softeners, solvents, or other chemicals. The reaction can look like a red, dry scaly rash, or more like a burn.

Other irritants may include:

- Dish soap and other household cleaning products
- Wet Cement
- Long-term exposure to wet diapers
- Pesticides or weed killers
- Rubber gloves
- Shampoos



### Allergic Contact Dermatitis

Allergic contact dermatitis is caused by exposure to a substance or material to which you have become allergic.

Common allergens include:

- Adhesives, including those used for false eyelashes or toupees
- Antibiotics, such as neomycin, rubbed on the surface of the skin

- Balsam of Peru (used in many personal products and cosmetics, as well as in many foods and drinks)
- Fabric and clothing
- Fragrances in perfumes, cosmetics, soaps, and moisturizers
- Nail polish, hair dyes, and permanent wave solutions
- Poison ivy, poison oak, poison sumac, and other plants
- Nickel or other metals (found in jewelry, watch straps, metal zips, bra hooks, buttons, pocketknives, lipstick holders, and powder compacts)
- Preservatives in personal care products such as diazolidinyl urea, formaldehyde, methylchloroisothiazolinone, methylisothiazolinone, and quaternium-15
- Rubber or latex gloves or shoes

Although you may not have a reaction to a substance when you are first exposed to it, regular use can eventually cause sensitivity and a reaction to the product. Some products cause a reaction only when the skin is also exposed to sunlight (photosensitivity). These include shaving lotions, sunscreens, sulfa ointments, some perfumes, coal tar products, and oil from the skin of a lime. A few airborne allergens, such as ragweed or insecticide spray, can also cause contact dermatitis.



## SYMPTOMS

Symptoms vary depending on the cause and whether the dermatitis is due to an allergic reaction or an irritant. The same person may also have different symptoms over time. Allergic reactions may occur suddenly, or only after months of being exposed to a substance.

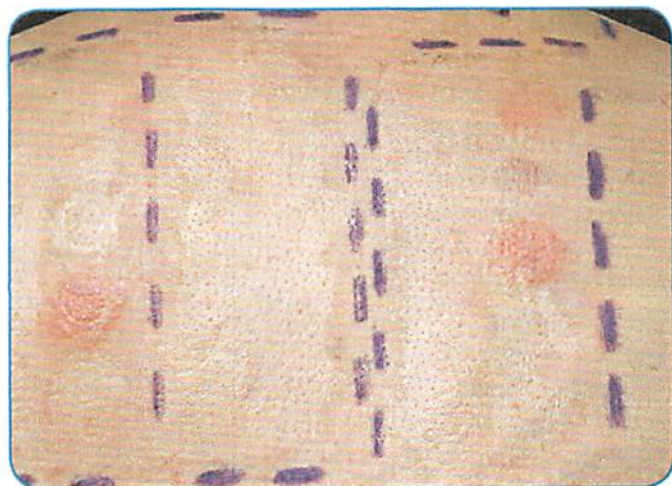
The hands are a common site for contact dermatitis. Hair products, cosmetics, and perfumes often lead to skin reactions on the face, head, and neck. Jewelry can also cause skin problems in the area under it.

Itching of the skin in exposed areas is a common symptom. In the case of an allergic dermatitis, itching can be severe. Dermatitis caused by an irritant may also cause burning or pain.

Allergic dermatitis often causes a red, streaky, or patchy rash where the substance touched the skin. The allergic reaction is often delayed, with the rash appearing 24 to 48 hours after exposure. The rash may:

- Have red bumps that may form moist, weeping blisters
- Feel warm and tender
- Ooze, drain, or crust
- Become scaly, raw, or thickened

Irritant dermatitis often causes dry, red, and rough skin. Cuts (fissures) may form on the hands. Skin may become inflamed with long-term exposure.



## EXAMS AND TESTS

A diagnosis is mostly based on the skin's appearance and the history of exposure to an irritant or an allergen. Allergy testing with the application of chemicals to the skin

(often called patch testing) may determine which allergen is causing the reaction. Patch testing is used for certain patients who have long-term, repeated contact dermatitis. It requires three office visits and must be done by a health care provider with the experience and skill to interpret the results correctly.

- On the first visit, small patches of possible allergens are applied to the skin. These patches are removed 48 hours later to see if a reaction has occurred.
- A third visit one to three days later is done to look for any delayed reaction.
- If you have already tested a material on a small area of your skin and noticed a reaction, you should bring the material with you.

Other tests may be used to rule out other possible causes, including a skin lesion biopsy or a culture of the skin lesion (see skin or mucosal biopsy culture).



## TREATMENT

Treatment includes washing with lots of water to remove any traces of the chemical that may remain on the skin. You should avoid further exposure to known irritants or allergens. In some cases, the best treatment is to do nothing to the area.

Emollients or moisturizers help keep the skin moist, and also help the skin repair itself. They protect the skin from



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becoming inflamed again. They are a key part of preventing and treating contact dermatitis.

Corticosteroid skin creams or ointments may reduce inflammation. Carefully follow the instructions when using these creams. Overuse, even of low-strength over-the-counter products, may cause a skin condition.

Along with, or instead of corticosteroids, your health-care provider may prescribe topical immunomodulating drugs such as tacrolimus ointment (Elidel) or pimecrolimus cream (Protopic) to use on the skin.

In severe cases, corticosteroid pills may be prescribed. You will start them on a high dose, which is tapered gradually over about 7 to 16 days. You may also receive a corticosteroid injection.

Wet dressings and soothing anti-itch creams or lotions may be recommended to reduce other symptoms.

## OUTLOOK (PROGNOSIS)

Contact dermatitis usually clears up without complications in two or three weeks. However, it may return if the substance or material that caused it cannot be found or avoided. You may need to change your job or job habits if the disorder is caused by occupational exposure.

## POSSIBLE COMPLICATIONS

Bacterial skin infections may occur.

## WHEN TO CONTACT A MEDICAL PROFESSIONAL

Call your health-care provider if:

- You have symptoms of contact dermatitis
- It is severe
- There is no improvement after treatment

*Modified from the U.S. Department of Health and Human Services National Institutes of Health. ●*