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Hand dermatitis

Hand dermatitis (also known as hand eczema) often results from a combination of causes, including genetic makeup (constitutional factors), injury (contact with irritants) and allergy. It is frequently caused or aggravated by work, when it is known as occupational dermatitis. Hand dermatitis is particularly common in industries involving cleaning, catering, metalwork, hairdressing, healthcare and mechanical work.

Hand dermatitis varies in severity. It may affect the backs of the hands, the palms or both sites. Often it starts as a mild intermittent complaint, but it can become increasingly severe and persistent. The affected skin initially becomes red and dry, then progresses to itchy papules (bumps) and fluid-filled blisters (vesicles), scaling, cracking (fissures), weeping (exudation) and swelling (oedema). Bacterial infection can result in pustules, crusting and pain. Longstanding dermatitis at the ends of the fingers may result in deformed nails. Hand dermatitis can spread to affect other sites, particularly the forearms and feet.

Hand dermatitis





More images of [hand dermatitis](#) ...

Aggravating factors

Constitutional factors

Some people are more prone to hand dermatitis than others. They often have a personal or family history of [atopic dermatitis](#), asthma or hay fever. They may have [discoid eczema](#).

Some have [psoriasis](#), a common skin complaint best known for causing red scaly patches on elbows, knees and scalp.

Sometimes emotional stresses make hand dermatitis worse, especially the type known as [pompholyx](#) in which crops of very itchy vesicles erupt on the palms.

Contact with irritants

The most common occupational factor leading to dermatitis is frequent immersion of the hands in water. This is particularly likely if the skin is exposed to detergents (e.g. hairdressers and shampoos) and solvents (e.g. painters and turpentine), as these eventually strip the skin of its natural protective layer. Friction and repetitive injury also damage the skin. Irritants result in much more damage once dermatitis has become established; a few minutes indiscretion can result in a flare-up that can last for several months. This is called [irritant contact dermatitis](#).

Allergy

Allergy refers to specific immunological hypersensitivity: the skin reacts abnormally to a substance that doesn't affect others. An immediate reaction is known as contact urticaria; for example some people cannot use latex gloves because as soon as they put them on, their hands become red, swollen and itchy. Contact urticaria usually lasts for about 20 minutes; however [latex allergy](#) can be dangerous because there is a risk of [anaphylaxis](#) (generalised hives, difficulty in breathing and collapse). Luckily this is rare.

[Allergic contact dermatitis](#) occurs hours to days after the contact has occurred, so it can be difficult to identify the cause. There are a huge number of items that can cause allergic contact dermatitis, including [nickel](#), [fragrances](#), [rubber accelerators](#) (in gloves) and [p-phenylenediamine](#) (permanent hair-dye).

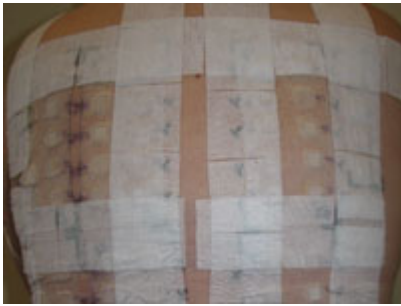
Caterers are prone to a combination of immediate and delayed allergic reactions to various proteins in food (protein contact dermatitis).

Once a specific allergy has been identified, contact with the causative material must be strictly avoided long term to clear up the dermatitis and to prevent its recurrence.

Patch tests

If you have troublesome dermatitis, consult a dermatologist for advice. Often it is advisable to arrange for [patch tests](#) to distinguish contact allergies from irritant reactions. A batch of materials including the suspected allergen are applied to the upper back in a concentration that would produce no reaction if the patient were not sensitised. The patch tests are removed 48 hours later and a final reading is made at 96 hours.

Patch tests in patients with hand dermatitis



Patch tests applied



Multiple patch test reactions



Typical positive reaction

Treatment

With careful management, hand dermatitis usually recovers completely. A few days off work may be helpful. When occupational dermatitis is severe, it may not be possible to work for weeks or months. Occasionally a change of occupation is necessary.

- Where possible, avoid wet-work and contact with irritants.
- Protect your hands using vinyl gloves, which are less likely than rubber to cause allergic reactions. Don't wear these for long periods, as sweating will also aggravate dermatitis. Always make sure the gloves are scrupulously clean inside.
- Use [emollients](#) frequently. A thin smear of a thick barrier cream should be applied to all affected areas before work, and reapplied after washing and whenever the skin dries out.
- Your doctor will prescribe [topical steroids](#) to reduce inflammation. These come in various strengths and should only be applied to areas of active dermatitis once or twice daily. Generally a potent topical steroid is used for several weeks.
- If your dermatitis is infected, your doctor will prescribe a topical or oral antibiotic such as [flucloxacillin](#) for about a week.

See a dermatologist if your dermatitis persists more than a few months or is severe. You may be treated with a course of oral [steroids](#) (prednisone) or other immunosuppressive medication. A form of ultraviolet radiation treatment called [PUVA](#) may be recommended.

Related information

On DermNet NZ:

- [Dermatitis](#)
- [Allergic contact dermatitis](#)

- [Irritant contact dermatitis](#)
- [Hand care in healthcare workers](#)
- [Pompholyx](#)
- [Nummular dermatitis](#)
- [Patch testing](#)
- [Dermatitis online course for health professionals](#)

Other websites:

- [Hand eczema](#): Occupational Dermatology Research and Education Centre, Australia
- [Contact Dermatitis, Irritant](#) – emedicine dermatology, the online textbook

Books:

See the [DermNet NZ bookstore](#)

DermNet does not provide an on-line consultation service.

If you have any concerns with your skin or its treatment, see a dermatologist for advice.

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