



[Authoritative facts](#) about the skin from the [New Zealand Dermatological Society Incorporated](#).

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## Allergic contact dermatitis

Allergic contact dermatitis is an itchy skin condition caused by an allergic reaction to material in contact with the skin. It arises some hours after contact with the responsible material, and settles down over some days providing the skin is no longer in contact with it.

Contact dermatitis should be distinguished from contact [urticaria](#), in which a rash appears within minutes of exposure and fades away within minutes to hours. The allergic reaction to [latex](#) is the best known example of allergic contact urticaria.

Allergic contact dermatitis is also distinct from [irritant contact dermatitis](#), in which a similar skin condition is caused by excessive contact with irritants. Irritants include water, [soaps](#), detergents, solvents, acids, alkalis, and friction. Irritant contact dermatitis may affect anyone, providing they have had enough exposure to the irritant, but those with [atopic dermatitis](#) are particularly sensitive. Most cases of [hand dermatitis](#) are due to contact with irritants.

Allergy is the term given to a reaction by a small number of people to a substance (known as the allergen) which is harmless to those who are not allergic to it. Only small quantities of allergen are necessary to induce the reaction. Contact allergy occurs predominantly from the allergen on the skin rather than from internal sources or food. The first contact does not result in allergy; often the person has been able to touch the material for many years without adverse reaction.

### Clinical features

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The dermatitis is generally confined to the site of contact with the allergen, although severe cases may extend outside the contact area or it may become generalised. Sometimes the allergen is transmitted from the fingers so unexpected sites can be affected eg the eyelids and genitals. Dermatitis is unlikely to be due to a specific allergen if the area of skin most in contact with that allergen is unaffected. The affected skin may be red, swollen and blistered or dry and bumpy.

Some typical examples of allergic contact dermatitis include:

- An eczema of the wrist underlying a watch strap due to contact allergy to [nickel](#)
- An eczema of the lower leg when ankle strapping has been removed due to contact allergy to [rosin](#) in the adhesive plaster
- Hand dermatitis caused by [thiuram](#), an anti-oxidant chemical used in the manufacture of rubber gloves
- Itchy red face due to contact allergy with [Kaphon CG](#), a preservative in a moisturiser.

### Allergic contact dermatitis

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Adhesive plaster reaction



Sunscreen reaction



Watch strap reaction

Some substances are particularly prone to cause contact allergy. In New Zealand, contact with [plants](#) related to the [Japanese Wax Tree](#) (*Toxicodendron succedanium*) results in allergic dermatitis in the majority of people, characteristically resulting in severe blisters and swelling.

Other common allergies are to [nickel](#) (jewellery), [fragrances](#), preservatives, [rubber](#) (gloves), [dye](#) (hair colourants), [adhesives](#) of various kinds, and topical medications such as antibiotics. There is a very long list of materials that have caused contact allergy in a small number of individuals.

## Photoallergy

Sometimes contact allergy arises only after the skin has been exposed to ultraviolet light. The rash is confined to sun exposed areas even though the allergen may have been in contact with covered areas. This is called [photocontact dermatitis](#).

### Examples include:

- Dermatitis due to a [sunscreen](#) chemical, affecting the top but not the under surface of the arm
- Dermatitis of face, neck, arms and hands due to [antiseptic](#) in soap.

## Testing for contact allergy

Sometimes it is easy to recognise contact allergy and no specific tests are necessary. The rash usually (but not always) completely clears up if the allergen is no longer in contact with the skin, but recurs even with slight contact with it again.

The open user test is used to confirm contact allergy to a cosmetic such as a moisturiser. The product under suspicion is applied several times daily for several days to a small area of sensitive skin. The inner aspect of the upper arm is suitable. Contact allergy is likely if dermatitis arises in the treated area.

If you think you may have a contact allergy, consult a [dermatologist](#) to have [patch tests](#) performed.

## Treatment

It is important to recognise how you are in contact with the responsible substance so that, where possible, you can avoid it.

- Find out precisely what you are allergic to by having comprehensive [patch tests](#)
- Identify where the allergen is found.
- Carefully study your environment to locate the allergen. Note: many chemicals have several names, and cross-reactions to similar chemicals with different names are common.
- Ask your [dermatologist](#) to help.

### Active dermatitis is usually treated with the following:

- [Emollient](#) creams

- [Topical steroids](#)
- Topical or oral antibiotics for secondary infection
- [Oral steroids](#), usually short courses, for severe cases
- [Photochemotherapy](#).
- [Azathioprine](#), [ciclosporin](#) or other immunosuppressive agent.
- [Tacrolimus ointment](#) and [pimecrolimus cream](#) are immune modulating drugs that inhibit calcineurin and may prove helpful for allergic contact dermatitis. Pimecrolimus has recently become available in New Zealand.

Contact allergy may disappear but often persists indefinitely.

#### Related information

##### On DermNet NZ:

- [Dermatitis](#)
- [Patch tests](#)
- [Pompholyx](#)
- [Hand dermatitis](#)
- [Irritant contact dermatitis](#)
- [Photocontact dermatitis](#)

##### Contact allergies:

- |  |   |
|--|---|
| • <a href="#">Balsam of Peru</a>                               | • <a href="#">Nickel</a>                                |
| • <a href="#">Benzocaine</a>                                   | • <a href="#">Paraben mix</a>                           |
| • <a href="#">Chrome</a>                                       | • <a href="#">Paraphenylenediamine</a>                  |
| • <a href="#">Clioquinol</a>                                   | • <a href="#">Plants</a>                                |
| • <a href="#">Cobalt</a>                                       | • <a href="#">P-tert butylphenol formaldehyde resin</a> |
| • <a href="#">Epoxy resin</a>                                  | • <a href="#">Quaternium-15</a>                         |
| • <a href="#">Ethylenediamine</a>                              | • <a href="#">Rosin</a>                                 |
| • <a href="#">Formaldehyde</a>                                 | • <a href="#">Rubber accelerators</a>                   |
| • <a href="#">Fragrances</a>                                   | • <a href="#">Thiomersal</a>                            |
| • <a href="#">Glyceryl thioglycate (acid perming solution)</a> | • <a href="#">Topical corticosteroids</a>               |
| • <a href="#">Imidazolidinyl urea</a>                          | • <a href="#">Wool alcohols (lanolin)</a>               |
| • <a href="#">Kathon CG</a>                                    |   |
| • <a href="#">Neomycin</a>                                     |   |

##### Other websites:

- [T.R.U.E. Tests](#): This site provides a wide range of information on contact dermatitis and contact allergy testing.
- [AllAllergy.Net](#): Allergy and intolerance information resource.
- [Allergy New Zealand](#)
- [Contact dermatitis](#): Occupational Dermatology Research and Education Centre, Australia
- [Allergic contact dermatitis](#) - 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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