

Your quick guide to: Contact Dermatitis: Allergic and Irritant

What is contact dermatitis

Contact dermatitis or contact eczema is the name given to a group of skin disorders including allergic, and irritant contact dermatitis, that result in an inflammatory skin reaction. The skin reaction is a result of an external agent that comes into contact with the skin's surface. This can be either an irritant which causes chemical damage or an allergen that causes an immune skin reaction.

Who is affected by contact dermatitis?

Anybody can be affected by contact dermatitis, however, if you have a dry skin condition such as atopic dermatitis you are more likely to be affected by irritant contact dermatitis, this is because the skin surface is already damaged.

Research suggests that you are more susceptible to develop contact dermatitis as you age, with more women affected than men. Although any body part can be affected by contact dermatitis, the hands are the most common part affected and individuals with occupations involving wet work, washing with surfactants or dealing with chemicals such as medical professionals, hairdressers, workers in the beauty industry, mechanics etc have a higher risk of developing irritant contact dermatitis.

What is the difference between an irritant and an allergic contact dermatitis?

Whilst both irritants and allergens will both produce a skin reaction and will require similar treatment; there is a difference in how the body produces the reaction. Irritant contact dermatitis is more common than allergic contact dermatitis, however, it is possible to be affected by both irritant and allergic contact dermatitis at the same time.

Contact dermatitis is often very itchy and can be painful. Symptoms can range from mild skin redness and dryness to fluid filled blisters, cracked skin and even ulcerated

areas in the case of corrosive materials (a chemical burn)

Irritant contact dermatitis - an irritant trigger is where the skin barrier is damaged or irritated by direct skin contact with a substance, often a chemical. An irritant contact reaction is not due to allergy and often occurs after frequent contact with the irritant trigger often over months or years, examples include cement, harsh soaps or heavy-duty hand cleaners.

Substances that cause irritant contact dermatitis commonly include detergents, soap, cleaning agents, bathing, haircare, toiletries and cosmetics including nail products, raw foods especially during food preparation, industrial products, solvents and abrasives, napkin dermatitis and even saliva and water, especially with repeated hand washing

Allergic contact dermatitis - is an allergic immune response to an allergen after contact with the skin. This usually requires repeat exposure; however, an individual can react on first exposure if the allergen persists on the skin surface for several weeks. Sometimes it can take many years of constant exposure to trigger allergen to elicit a skin reaction. For instance, you may use a particular brand of shampoo for years without any issue and then one day find you have developed a sensitivity to one or more of the ingredients and develop a contact skin reaction every time you use the product.

This allergic reaction is described as a delayed reaction as it may take 48 hours or more for the skin reaction to become apparent and this is due to the immune mechanism that causes the contact dermatitis.

Please note - Skin reactions to allergens may take many weeks or months to settle even with complete avoidance and treatment. For some individuals, complete avoidance of the allergen may not be possible and require ongoing treatment to reduce the symptoms. It is important to be aware that you do not need to be atopic to develop allergic contact dermatitis.

Key facts:

Anybody can be affected by contact dermatitis, however, if you have a dry skin condition you are more likely to be affected by irritant contact dermatitis.

Although any body part can be affected by contact dermatitis, **the hands are the most common part** affected.

Allergic dermatitis is described as a **delayed reaction** as it may take 48 hours or more for the skin reaction to become apparent.

Allergy UK Helpline

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Substances that commonly cause allergic contact dermatitis include ingredients in cosmetics: skin care and nail products (gel nails), fragrance, essential oils (many allergens are 'natural' products), hair dye (PPD), metals (e.g. nickel (earrings), cobalt and chromate), glues and adhesives, rubber additives, acrylates and formaldehyde.

How is contact dermatitis diagnosed?

In order to make a diagnosis your health care professional will need ask a lot of questions and examine the area affected, it can be helpful to take pictures of the rash to show at your appointment, especially if there is a delay in being seen.

You may be asked questions including.

1. When the rash occurred what you had been doing, how long have you had the rash
2. What the rash looked like, was there any blistering, dryness, peeling and redness,
3. If you have any other known skin conditions e.g. atopic eczema
4. Your occupation or hobbies that you enjoy.

What about allergy testing?

As contact dermatitis is a delayed skin reaction not an immediate (IgE) type skin reaction, allergy tests such as skin prick testing or IgE blood tests are not useful in the diagnosis of contact dermatitis.

Irritant contact dermatitis is a clinical diagnosis based on your description of the rash and the appearance.

Skin Patch testing is essential to diagnose an allergic contact dermatitis. As irritant and allergic contact dermatitis can look the same and coexist, patch testing is necessary to exclude an allergy. Patch testing is also undertaken in patients with endogenous eczema (such as atopic eczema) to exclude an allergy to skin treatments when the skin is not improving, for some drug reactions and reactions to implants (e.g. dental and orthopaedic).

Skin patch testing typically involves three visits to your local dermatology unit over the course of a week; it is important not to let the area where the patches are applied get wet during this time. The first visit will include application of the test patches containing allergen substances, often to the back as this is the largest accessible surface area (if the back is affected another site will be used), these patches will be left in place with hypoallergenic tape for a period of approx. 48 hours to allow the immune system time to react to the allergens placed on the skin. The second visit will be to remove the tape and allergens and review the area. The third visit will be to examine the skin and discuss your results. If you have any positive results, they will probably be very itchy, but it is important not to scratch or rub the area as this may interfere with the reading of the results.

Tips to help manage your skin

Once the cause of your contact dermatitis has been identified, it is important to try to implement any advice recommended by your health care professional. The mainstay of treatment is to avoid the cause. Whatever the cause of the dermatitis, the barrier function of the skin has been damaged and may take some time to improve. A worsening of the skin condition may occur if continued exposure to irritants or allergens occurs.

For the management of irritant contact dermatitis

- Avoid known and potential irritant triggers: prevent further damage by creating a barrier e.g. wearing gloves, especially when in contact with detergents and chemicals.
- When washing avoid harsh soap and soap products, ideally use a soap substitute, to protect the skin and prevent further irritation and breakdown of the skin barrier.
- Restore the skin barrier: Intact skin reduces the risk of irritant reactions, it is recommended to apply a fragrance-free emollient, as often as required,

to the affected area to protect and restore the skin barrier.

- Treatment of the skin: the use of anti-inflammatory creams to any active skin rash for example topical treatments may be necessary whilst the skin improves after avoiding the cause.

For the Management of allergic contact dermatitis

- Identify the causative provoking allergen through patch testing at your local dermatology unit.
- Avoid the trigger allergen where practical, unfortunately this may include lifestyle or occupational changes, speak to your health care professional for guidance before making any decisions.

Typically, the rash will clear on its own once the allergen is removed but can take several weeks to months to do so. Rarely, contact allergy reactions can persist even after the provoking allergen has been removed and treatment may be necessary.

- Know the name of your allergen, this helps when reading packaging etc to identify your allergen. It is important to note that some ingredients or chemicals may be known by more than one name. However, on packaging companies are required to use the INCI name, and your doctor will tell you this. In addition, some allergens may cross react with others for example, balsam of Peru can cross react with colophony and propolis, so receiving clear advice from the dermatology department when receiving patch test results is very important.
- Avoidance is important as contact allergy is usually life long and the skin reaction can occur on re-exposure to the allergen

How to recognise if your skin has become infected

Any area of broken skin can become infected. Recognising symptoms of a skin

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infection are important and can include increased itch, redness, heat, swelling, oozing or pus at the affected area. If you suspect you have a skin infection, please contact your GP or practice nurse as soon as possible to receive advice.

Contact dermatitis is usually very itchy and often affects visible areas of the body which can have a substantial impact on daily activities and mood especially if your hobbies, work or schooling is affected.

If symptoms persist or you are concerned it is important to seek advice from a health care professional such as the pharmacist, GP or practice nurse.

Useful resources

National Eczema Society - [Contact dermatitis information booklet](#)

- <https://eczema.org/information-and-advice/types-of-eczema/contact-dermatitis/>

Allergy UK - [Eczema resources](#)

- <https://www.allergyuk.org/types-of-allergies/eczema/>

British Association of Dermatologists:

- [Contact dermatitis](#) - <https://www.bad.org.uk/pils/contact-dermatitis>
- [How to care for your hands?](#) - <https://www.bad.org.uk/pils/how-to-care-for-your-hands>
- [Patch testing](#) - <https://www.bad.org.uk/pils/patch-testing>

Clinical contributions:

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