

Skin disorders are one of the most common occupational diseases. Occupational skin disorders are caused by skin contact with substances encountered within the workplace. Dermatitis is a term used to describe the reaction that occurs when the skin becomes inflamed. This accounts for the majority of skin disorders. Contact Dermatitis occurs as a result of repeated contact with a substance that causes either irritation (Irritant Contact Dermatitis) or specific sensitisation (Allergic Contact Dermatitis).

Examples of substances that may cause dermatitis include:

- chemicals
- biological agents, e.g. plants, bacteria and fungi
- prolonged or frequent contact with water, e.g. more than two hours a day
- alcohols (e.g. alcohol gel)
- disinfectants, petroleum products, soaps and cleaners
- gloves
- repeated friction
- a combination of the above.

Any job that either involves frequent hand washing, having wet hands either frequently or for long periods of time, or in direct contact with certain products e.g. gloves or chemicals can contribute towards dermatitis. The environment at work can also exacerbate skin problems or make them worse, e.g. extremes of temperature (hot or cold) or a very dry atmosphere can make skin dry and inflamed.

The main feature of dermatitis is dry, red and itchy skin. Swelling, flaking, blistering, cracking and pain may follow. Symptoms can vary from being a minor discomfort to becoming a painful and inconvenient problem. It can also become quite significant if the symptoms are not identified early and effectively treated. Dermatitis can potentially lead to skin infections and sickness absence which may affect an individuals' fitness to do their job.

Irritant contact dermatitis

This is the most common form of hand dermatitis. It is a non-allergic condition that is reversible provided contact with irritants is avoided. It can develop in the workplace after repeated or prolonged low-grade exposures to an irritant substance. Symptoms may occur such as redness, soreness, dryness or cracking of the skin. Frequent hand washing, strong scrubbing agents, soaps and detergents can also cause skin problems or make them worse.

Allergic contact dermatitis Type IV

This reaction has similar symptoms to irritant contact dermatitis. The reaction tends to be local, appearing only where the skin has had contact with the irritant substance. Symptoms can appear several hours or days after contact with the

offending substance. Once sensitivity occurs, contact with only small amounts will produce the reaction.

Immediate allergic reaction Type I

Although rare, some individuals can have an allergic reaction almost immediately or within 5-30 minutes of exposure to a substance

There is generally localised swelling and itching, but a more general reaction may occur:

- Urticaria - a rapid skin response often referred to as a 'wheal (swelling) and flare (red mark)' reaction or hives. It is different from irritant contact dermatitis and allergic contact dermatitis in that it quickly follows skin contact and disappears again within hours.
- There may be the presence of rhinitis (itchy eyes, runny nose),
- conjunctivitis,
- facial swelling,
- respiratory distress (e.g. wheezing, chest tightness), asthma and
- In severe cases circulatory collapse (severe anaphylaxis), which can be a life threatening condition.

Latex glove use

Natural rubber latex can cause severe allergies in individuals who have become sensitised. In line with the University's policy for the use of latex disposable gloves, where latex gloves are worn at work, they must be powder free and a risk assessment undertaken and reviewed annually. For further information on glove selection and chemical permeation through different glove materials, see the University's guidance available on the Health and Safety Office website: <https://www.safety.admin.cam.ac.uk/publications/hsd168c-glove-selection-guidance-handling-chemicals>

Hand care - Do's

- Use a mild soap whenever an antiseptic is not needed
- Wet hands first with warm water, lather with soap for 20 seconds and rinse for 20 seconds, then dry your hands thoroughly with non-abrasive hand towels, as per infection control guidance HSE -Hand Washing procedure recommendations: <https://www.hse.gov.uk/skin/posters/skinwashing.pdf>
- Cover cuts and grazes with a permeable waterproof dressing
- Apply emollient hand cream/ lotion – first thing in the morning, during breaks and after work, and at the end of the day, allowing sufficient time for the cream/lotion to be absorbed before donning the gloves
- Avoid direct contact with irritants such as:
 - chemicals and solvents
 - white spirit and petrol
 - polishes for windows and cars

- floor, shoe and furniture polish
 - shampoo and hair dyes
 - citrus fruits e.g., oranges, lemons and grapefruits
- Do report any work related skin issues to your line manager and contact Occupational Health for further advice.

Hand care - Don'ts

- Don't use oil based creams under the gloves, this will degrade the material
- Don't use communal pots of hand cream
- Don't expose your hands to extreme temperatures (hot or cold)
- Don't ignore symptoms – REPORT – Seek advice.

Hand care in Clinical areas

- Emollient washes, such as Dermalol, should not be used in isolation for handwashing in any clinical areas as they do not effectively remove and inactivate COVID-19 and other viruses. Soaps, detergents and alcohol gels help to penetrate the lipid membrane of the virus, but emollients do not do this.
- The staff member/student should only use the standard issue soap or a simple soap that they find comfortable to use to wash hands in line with their departmental protocol.
- Alcohol gels can be used as an alternative to soap. As most alcohol gels include an emollient, this may aggravate the skin less than washing.
- Alcohol gels can be used up to six times consecutively, but hands should then be washed with soap and water before using anymore alcohol gel. Hands may become sticky with a build-up of emollient.
- Only use emollients as aftercare / moisturiser in clinical areas after washing hands with soap.
- If emollients have been used as a moisturiser, then the hands should be washed with soap, or alcohol gel used, before any clinical procedures begin.
- Emollients can continue to be used at home to wash hands as an alternative to soap if required.

Further information can be found at:

<http://www.oh.admin.cam.ac.uk/advice-and-guidance/skin-care-work>
<https://www.hse.gov.uk/skin/>
<https://www.nhs.uk/live-well/best-way-to-wash-your-hands/>
<https://www.bad.org.uk/>
<https://eczema.org/>

Further advice: If the adverse symptoms do not resolve or if the initial symptoms become more severe or systemic, please contact Occupational Health immediately for further advice.

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Skin Care

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