Occupational Contact Dermatitis and Urticaria

A British Occupational Health Research Foundation Guide for Employers, Workers and their Representatives

March 2010
This leaflet summarises the key evidence based advice for policy and practice on the risk management of occupational contact dermatitis and urticaria.

The full guidelines, report, and analysis of relevant research is available from the British Occupational Health Research Foundation. It can also be accessed on the BOHRF website at [www.bohrf.org.uk](http://www.bohrf.org.uk).

BOHRF is an award-winning, innovative niche charity specialising in the provision of evidence based solutions to practical questions asked by employers and their advisers in both private and public sectors.

Our mission is:

'Bringing employers and researchers together to produce research that will contribute to good employee health and performance at work'.

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OCCUPATIONAL CONTACT DERMATITIS & URTICARIA

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Introduction

Skin disease is a very common occupational disease. Workers with this type of disease often say it affects their quality of life a great deal. Because occupational skin diseases are so common and the impact so severe, a review of published scientific literature has been undertaken. The aim of this review is to improve how these diseases are prevented, identified and managed. The work was carried out by a group of people that included occupational health professionals, dermatologists, health and safety and environmental health inspectors, GPs, employers, unions and employees. The information in this leaflet summarises the findings of the review for employers and employees.

What is occupational contact dermatitis?

There are two types of occupational contact dermatitis;

- **Irritant contact dermatitis**, where agents directly affect the skin leading to inflammation. Dry, red and itchy skin is a common first sign. Swelling, flaking, blistering, cracking and pain may follow. It can occur quickly after contact with a strong irritant, or over a longer period from repeated contact with weaker irritants. Irritants can be chemical, biological, mechanical or physical. Repeated and/or prolonged contact with water can also cause irritant dermatitis. This is often referred to as ‘wet work’.

- **Allergic occupational contact dermatitis** (or skin sensitisation) is where the sufferer develops an allergy (becomes sensitised) to an allergen (sensitising substance). The signs and symptoms are difficult to distinguish from irritant contact dermatitis. Sensitisation can develop over time and it may be weeks, months or even years before it becomes apparent. However, once a person has developed an allergy, contact with tiny amounts of the allergen will trigger allergic contact dermatitis.

What is occupational contact urticaria?

Urticaria is a skin condition that typically shows as a wheal (swelling) and flare (red mark) reaction. Skin irritants or allergens may cause it. It is different from irritant contact dermatitis and allergic contact dermatitis in that it quickly follows skin contact and disappears again within hours.
What are the causes?

The most frequently and consistently reported agents include:

- irritant occupational contact dermatitis
  - alcohols
  - cutting oils and coolants
  - degreasers
  - disinfectants.
  - petroleum products
  - soaps and cleaners
  - solvents and wet work.

- allergic occupational contact dermatitis
  - cobalt
  - chromates
  - cosmetics and fragrances
  - epoxies
  - nickel
  - plants
  - preservatives
  - resins and acrylics.

- occupational contact urticaria
  - cow dander
  - food
  - animal products
  - flour and grains
  - natural rubber latex.

Who is most at risk?

These diseases can happen in most workplaces although workers reported to be at increased risk of developing occupational contact dermatitis include:

- hairdressers
- beauticians
- health care workers
- cooks and caterers
- mechanics
- metalworkers and vehicle assemblers
- chemical/petroleum plant operatives
- agricultural workers.

Those at greatest risk of developing occupational contact urticaria include:

- bakers
- farmers
- health care workers
- workers preparing food.
How can employers help prevent these diseases?

The law requires employers to assess the risks and adequately control exposure to materials in the workplace that cause ill health such as occupational contact dermatitis and urticaria. The ‘risk’ is the likelihood that workers’ skin will come into contact with substances that can cause these conditions. ‘Assessment’ means deciding who might be harmed and how.

For example:

- How much of the substance is used?
- How often is it used, and by how many workers?
- How is the substance handled?
- Which parts of the skin are exposed and for how long?

If a skin contamination problem is identified, employers need to develop measures to adequately prevent or control the risk. The key recommendations from this review focus on things that can be done in the workplace to limit the risks.

1. Reducing exposure reduces the likelihood of disease. Does the substance have to be used? Can a safer alternative be used? If it does have to be used then the most effective way to reduce exposure is to try and contain it at source (e.g. by enclosing the process or using local exhaust ventilation). Handle the materials in ways that limit contact. Good housekeeping and good storage of materials prevents the spread of contamination.

2. PPE is the least effective control measure and should be the last measure to be considered. PPE only protects well when it is selected correctly, worn properly, removed safely and either replaced or maintained regularly. Wearing gloves for long periods can make the hands hot and sweaty, leading to skin problems. Using separate cotton liner gloves can help prevent this.

3. Don’t promote the use of pre-work creams as ‘barrier creams’. They can keep the skin moisturised and may help with the removal of dirt but, they do not create an effective physical barrier. Promoting their use as ‘barrier creams’ may confer on workers a false sense of security.

4. After-work or conditioning creams help to prevent occupational contact dermatitis developing. They should be readily available in the workplace and their use encouraged.

5. A number of the studies reviewed have shown the importance of training workers about their risks to health from skin exposure and the precautions needed to prevent disease. This training should include the correct use of any personal protective equipment, good skin care and what to do if they suspect they might have a skin problem.

How can employees help prevent these diseases?

Workers have a legal duty to take care of their own health and safety. This means co-operating with employers by following their health and safety training and by using any preventative measures provided. This includes using any personal protective equipment supplied and following any skin care procedures. They should also report any problems promptly.
How can safety representatives help?

It is important that employers involve workers, safety representatives and trade unions in health and safety matters. Not only is it good practice but consultation is a legal duty. It is important to remember that consultation is about involving all parties and taking on board their views, not just giving workers information.

Safety representatives can help with workplace inspections, which include checking engineering controls such as ventilation or personal protection. They can also help to investigate should things go wrong. Safety representatives can help secure a good safety culture.

What if a case of occupational skin disease is suspected?

Individuals with suspected skin problems should visit their General Practitioner for advice and treatment if needed. If a case of occupational contact dermatitis is confirmed then under the Reporting of Incidents, Diseases and Dangerous Occurrences Regulations 1995, employers should report this to the appropriate regulatory authority (either the Health and Safety Executive or local Environmental Health Authority). Employers should also review their risk assessment and make any necessary changes.

Further information

Useful information on occupational skin problems and on health and safety legislation is available from the Health and Safety Executive web site: www.hse.gov.uk/skin.

For the full version of the guidelines on occupational contact dermatitis and urticaria go to: www.bohrf.org.uk
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