H & S Guidance Leaflets - Skin Diseases (Occupational Dermatoses)

INTRODUCTION

Occupational dermatoses are common. About four million working days are lost in the UK each year because of skin disease, the total cost to British industry running into millions of pounds. No occupation can be considered entirely free from the hazard of skin diseases and equally not all skin diseases are of occupational origin.

The skin provides natural protection as long as the surface layer remains intact and undamaged by wounds, solvents or irritants. For this barrier layer to function properly there must be at least 10% of water in it. Partial gaps in the barrier layer are made by sweat glands and hair follicles, which are consequently more vulnerable to penetration. The nature of the substance, the degree, duration and frequency of exposure to the substance and individual susceptibility determine how much skin damage will result from any particular substance.

CONTACT DERMATITIS

Symptoms show as eczema and itching. Substances capable of causing contact dermatitis can be divided into two groups, irritants and sensitisers.

Irritants - Can be divided into 'weak' and 'strong' irritants. Weak irritants require frequent multiple exposures, often over prolonged periods, the result being termed CHRONIC IRRITANT CONTACT DERMATITIS. Chronic irritants include a wide range of substances including weak acids and alkalis, soaps, detergents, organic solvents and water-based metalworking fluids (soluble oils). Mechanical friction can also act as a chronic irritant.

Sensitisers - are substances capable of causing the allergic type of contact dermatitis in a two stage process:-

1. induces contact sensitisation by penetration of barrier layer.
2. provokes an immunological delayed allergy over about seven days.

Further skin contact with the particular sensitiser causes ALLERGIC CONTACT DERMATITIS. The concentration, duration and frequency

of skin contact are major factors in inducing sensitisation. The sensitisation hazard of chemicals varies from none to strong. Sensitisation can be induced at any time or not induced at all, being influenced by variation in personal susceptibility. Contact sensitising substances include formaldehyde, biocides, hardwoods, plants (e.g. chrysanthemums, daffodils, tulips etc) and nickel.

OTHER FORMS OF OCCUPATIONALLY INDUCED SKIN DISEASE

- Contact urticaria ("hives" or nettle rash) - gives a shorter - lasting rash than contact dermatitis. It may be caused, for example, by rubber latex in protective gloves.
- Inflammations of hair roots - oil acne (from mineral oil, usually in cutting oils) and chloracne.
- Ulcerative conditions e.g. cement burns from wet cement.
- Skin cancers from excessive exposure to UV radiation or from exposure to carcinogenic substances (e.g. mineral oils that have not been solvent refined or severely hydrotreated)
- Photodermatitis - where the skin develops a hypersensitivity to UV radiation (e.g. citrus oils used for degreasing purposes)
- Physical agents - heat, light, humidity (e.g. chapping of hands of agricultural workers).

RISK ASSESSMENT/COSHH ASSESSMENT

In order to avoid occupational dermatoses it is necessary to:-

- Identify any agents with known risks of skin damage using: Suppliers labels and literature/hazard data sheets. Company/industry guidance, or information regarding known potentially sensitive occupations.

- Assess whether any exposure of the skin to that substance poses a significant risk.
- Decide what control measures are required.

In determining the measures required to prevent ill-health, the following hierarchy should be observed:

- Can the substance be eliminated or replaced by a safer alternative?

If not:-

- Apply control measures to MINIMISE CONTACT with the skin, either directly or indirectly, with measures also to ensure that controls are properly used and maintained.
- Considerations might include:-
- Safe methods of working (eg enclosure, splash guards, ventilation etc.)
- Good personal hygiene
- Good housekeeping
- Adequate working facilities
- Personal protection - protective clothing, barrier creams (which offer only limited protection and are unlikely to be effective against allergic contact dermatitis) and conditioning creams applied after cleansing

NB - Personal protective equipment should not be the first and only means of control considered.

HEALTH SURVEILLANCE

This is required where there is exposure to a substance known to be associated with skin disease/adverse effects on the skin and where, under the particular conditions of the work, there is a reasonable likelihood that the disease/effects may occur. Published guidance is available regarding the sorts of situations covered by these criteria (see References/Further Details section).

General approach: Ensure arrangements are in place to identify cases of occupational dermatoses, supported by information, instruction and training for employees on health risks, precautions and on what to be alert to.

Statutory surveillance: Where health surveillance is legally required (see COSHH element in this manual), cases of occupational skin disease should be actively sought in the workplace, together with the keeping of appropriate health records. Surveillance might be under the control of a competent person but the more inherently dangerous the dermatosis the more appropriate it is to be looked for directly by a suitably qualified person or medical practitioner.

In cases of doubt as to whether surveillance is necessary, employers will need to obtain advice from an occupational physician or medical practitioner.

CHECKLIST -SKIN DISEASES

(OCCUPATIONAL DERMATOSES)

Have you identified any agents with known risks of skin damage used or generated in your workplace?

YES / NO

If so, have you assessed whether any exposure of the skin to those agents poses a significant risk?

YES / NO

Have you decided what control measures are required to prevent ill health?

YES / NO

Have you established a system to ensure and record that control measures are used and maintained?

YES / NO

Have you established whether health surveillance is required?

YES / NO

If so, have you ensured the competency of the person(s)responsible for the surveillance programme?

YES / NO

Have you informed, instructed and trained your employee regarding health risks, precautions and the nature of adverse effects on the skin?

YES / NO

REFERENCES/FURTHER DETAILS

1. Guidance Note MS24 Health Aspects of Occupational Skin Disease (HSE) ISBN 0-11-885583-2
2. Construction Health Hazard Information Sheet No. 7 - Skin Hazards - (HSE)
3. HSE Information Sheet (Engineering sheet EIS 14) Skin Creams and Skin Protection in the Engineering Sector (HSE)
4. Leaflet - Keep Your Top On (Health Risks from Working In The Sun) IND (G) 147L (HSE)
   www.hse.gov.uk/pubns/indg147.pdf
5. HSE Information Sheet (Food Sheet No. 17) -
6. Occupational Dermatitis in the Catering and Food Industries

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