

TRANSLATION

National Board of Industrial Injuries
29th June 2001

Guide to work-related contact eczemas

The List of Occupational Diseases
Group A, items 5 and 9
Group B, items 2 and 3

Chapter 1

Introduction

1.1. The list of occupational diseases, group A, items 5 and 9, and group B, items 2 and 3

The list of occupational diseases, which is compiled by the National Board of Industrial Injuries, includes diseases that, according to medical and technical experience, are caused by special working conditions to which certain groups of persons are exposed more than others. This administrative order lists general conditions for recognising a disorder as an industrial injury on the basis of the list, as well as special conditions for recognition of each of the disorders in question.

This guide pertains to the disorders included in appendix 1 of the list under group A, items 5 and 9, and group B, items 2 and 3. These are various types of contact eczema as well as urticaria (nettle rash):

- Allergic contact eczema
- Toxic contact eczema
- Urticaria (nettle rash)

These disorders are recognised as occupational diseases in cases where the general as well as the special conditions under group A, item 5 or 9, or group B, item 2 or 3, are met, cf. section 2 of the list.

The National Board of Industrial Injuries negotiates at least every two years with the Occupational Diseases Committee the diseases meeting the requirements for inclusion in the list of occupational diseases. In other words, the Occupational Diseases Committee has taken a position on the special conditions for recognition set out under each item of the list.

1.2. The Occupational Diseases Committee

If the special conditions of the list are met, the National Board of Industrial Injuries recognises reported diseases included in the list.

If a disorder is on the list, but the special conditions for recognition are not met, the reported disorder will, as a rule, be turned down by the National Board of Industrial Injuries without submission of the case to the Occupational Diseases Committee.

There may be cases, however, where the special conditions are not met, but the National Board of Industrial Injuries nevertheless finds that the exposure was so intensive or special that the Occupational Diseases Committee should decide on the matter, even though the disease is mentioned on the list.

In order for the case to be recognised after submission to the Occupational Diseases Committee, the disorder must be likely to have been caused, solely or mainly, by the special nature of the work, cf. section 10(1)(ii) of the Act on Protection against the Consequences of Industrial Injuries.

If a reported disorder is not on the list, the case must be submitted to the Occupational Diseases Committee before any recognition by the National Board of Industrial Injuries. Cases pertaining to contact eczemas are seldom submitted to the Occupational Diseases Committee, these diseases frequently being recognised under group A, item 5 or 9, or group B, item 2 or 3.

1.3. This guide

This guide was written on the basis of the practice of the National Board of Industrial Injuries and the National Social Appeals Board.

The guide is first and foremost meant for the Board's caseworkers and medical consultants, and will also be useful for trade unions, insurance companies and, not least, medical specialists who report industrial injuries and write medical certificates.

Chapter 2 describes the general and special conditions for recognising a disorder as an industrial injury on the basis of the list. Chapter 2 furthermore mentions pre-existing or competitive disorders.

Chapter 3 gives a description of the differences between allergic and toxic contact eczema.

The diagnostic criteria for recognition are described in chapter 4, and the requirements with regard to work-related exposure are described in chapter 5.

Chapter 6 describes pre-existing and competitive disorders.

As it can be difficult, in certain skin disorder cases, to point to the employer responsible for providing protection, the principles for determining the employer liable to provide protection are set out in chapter 7.

Chapter 8 gives an account of compensation for loss of earning capacity.

Chapter 2

General and special conditions for recognition

2.1. General conditions

The disorders included in the list can only be recognised as occupational diseases when the general conditions are met. Section 1 of the list sets out the following general conditions for recognition:

- In respect of intensity and duration, the harmful exposure shall correspond to the exposure for which a causal relationship has been established between the exposure and the disease.
- The pathological picture shall correspond to the pathological picture for which a causal relationship has been established between the exposure and the disease.
- There shall be no information available of any factors that make it probable beyond reasonable doubt that the disease was caused by non-occupational circumstances.

In a number of cases it has been specified under each item which exposures are necessary in order to recognise the disorder.

Only when the general conditions are met and there is documentation, for each disorder in question, of an exposure corresponding to the descriptions under group A, items 5 and 9, or group B, items 2 and 3 of the list, is there a presumption that the disorders are work-related.

2.2. Special conditions

Allergic eczema is recognised under group A, item 5, when there have been several years of substantial exposure to chromium and certain chromium compounds.

Furthermore it is possible to recognise allergic eczema under group A, item 9, after several years of substantial exposure to nickel and certain nickel compounds.

Finally it is possible, when there is a clear indication of allergy to the substance, to recognise allergic eczema under group B, item 2, if the skin disorder was caused in the workplace by substances not mentioned elsewhere.

When a correlation has been established between the onset and continuing existence of the disease and the presence of one or several irritants or physical factors in the work environment, the toxic eczemas are recognised under group B, item 3, if the skin disorder was caused by substances or exposures not mentioned elsewhere.

Thus it applies to allergic contact eczemas that

- the diagnostic criteria for allergic contact eczema must be met
- the occupational exposure to the allergen in question must be established or seem likely
- the occupational exposure must be seen as being more significant than the private exposure

Similarly, it applies to the toxic contact eczemas that

- the diagnostic criteria for toxic contact eczema must be met
- the occupational exposure to irritants must be established or seem likely
- the occupational exposure must be seen as being more significant than the private exposure

The same conditions apply to urticaria as to allergic and toxic contact eczema. These diseases are recognised under group B, item 2 (allergic urticaria) and item 3 (non-allergic urticaria).

2.3. Pre-existing and competitive disorders

Contact eczema may be caused by other factors apart from work. There may be a disorder that existed before the occupational exposure occurred. It may also be a competitive disorder, i.e. a

different disorder from the one reported, causing the same symptoms. Contact eczema may also be caused by leisure-time exposures.

If there is a pre-existing or competitive disorder, it has to be decided in the specific case if this disorder is the only or the most substantial cause of the disease. If this is the case, the disorder is not recognised, cf. above under 2.1.

If the general and special conditions for recognition are met, and there are no pre-existing or competitive disorders, the reported disorder will be recognised without reservations. If the general conditions are met, but there are pre-existing or competitive disorders at the same time which contribute to the reported disorder, but do not exclude recognition, the reported disorder may be recognised with reservations. This may have an impact on the amount of the compensation for permanent injury and loss of earning capacity.

Only if the pre-existing disorder was symptomatic before the industrial injury and there is documentation of this, can there be a reduction in or lapse of the compensation for permanent injury or loss of earning capacity. If there is a definite prognosis that the pre-existing disorder would have caused symptoms, even if the industrial injury had not occurred, a reduction may be made in the compensation.

Chapter 3

Allergic or toxic skin disorder

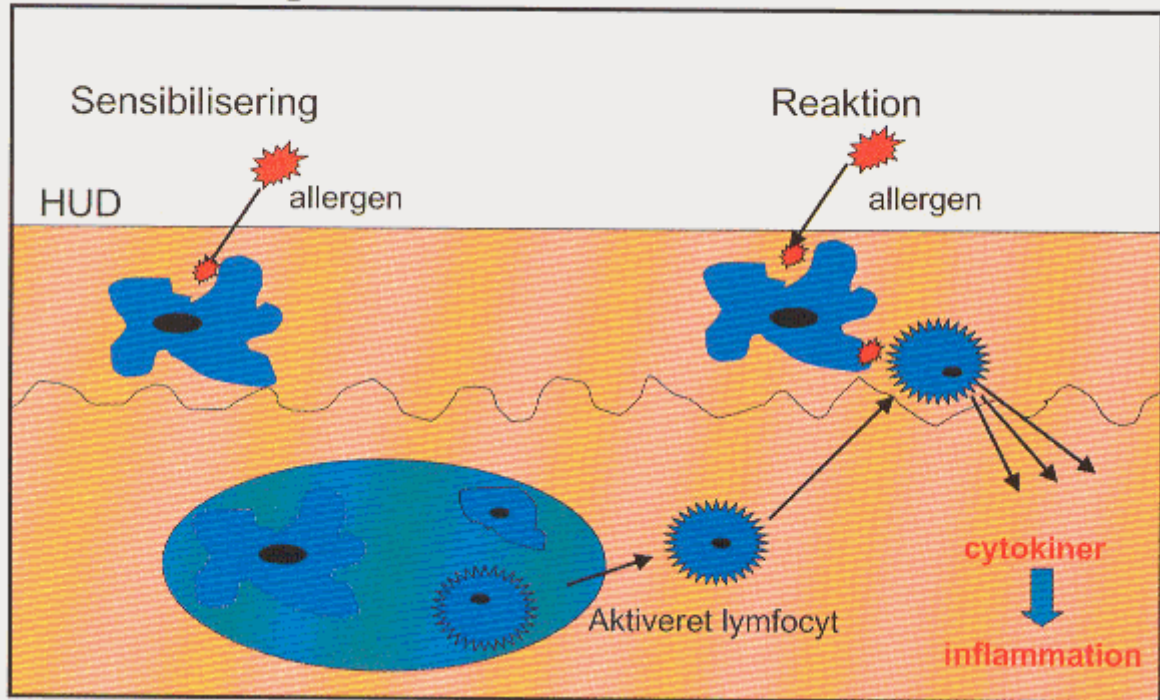
Contact eczema and urticaria are triggered by allergy or irritation. Even though the two mechanisms cause the same clinical changes, they are in principle two entirely different reactions.

3.1. Allergy

Contact allergy is caused by skin contact to chemical substances that are able to penetrate the skin and affect the immune system of the epidermis.

This process activates some special cells (T-lymphocytes), which become capable of recognising the substance in question, and these cells are spread in the immune system of the whole body. In the event of renewed exposure to the same allergen (provocation), the activated cells wander up into the skin and trigger an eczema reaction. This type of allergy is called delayed hypersensitivity or "type-4 allergy".

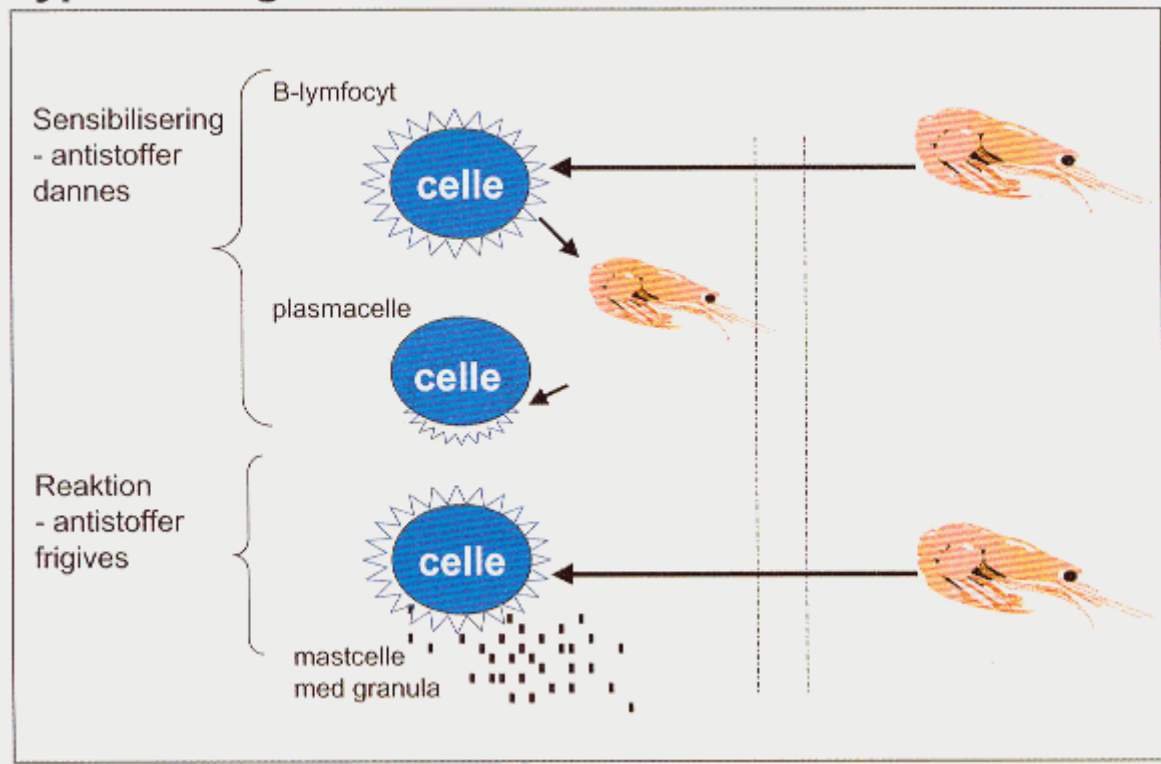
Type IV allergi-mekanisme



Thus an allergic contact eczema can break out only if the person in question has previously been exposed to the allergen. How long it takes from the first exposure to the onset of the allergy, depends on a number of factors, i.a. how potent is the allergen and how intensive the exposure. It is not unusual to have been exposed to an allergen for months or years before the allergy breaks out and becomes symptomatic.

Allergic urticaria (contact nettle rash) appears when, in connection with previous exposure, specific antibodies to the substance in question have been formed. These antibodies are present in the blood stream, and the allergic reaction releases histamines. The allergy in connection with allergic urticaria is called "type-1 allergy", and the allergic reaction releases symptoms such as nettle rash, asthma, diarrhoea and shock.

Type I allergi-mekanisme



For both types of allergy the condition is chronic. This does not mean, however, that you have symptoms. The symptoms are only released when you get in touch with the allergen in question. Thus there is a difference between having a contact allergy and having a contact eczema. Having a contact allergy means that, when you are exposed to the allergen in question, you may develop eczema. Having a contact eczema means that you currently have symptoms.

3.2. Irritation

Toxic contact eczema is triggered when skin-irritant substances break down the surface of the skin. This breakdown leads to a complex series of cell reactions provoking eczema. Toxic contact eczema is triggered by repeated exposure to one or several skin irritants. The reaction usually develops gradually and does not, as is the case for allergy, imply any specific recognition in the immune system of the substance. The symptoms of toxic contact eczemas cannot be clinically distinguished from allergic contact eczema.

For non-allergic urticaria the reaction is triggered by a local, direct impact of the substance in question on the skin, which releases histamines. The symptom is nettle rash.

Chapter 4

Contact eczema

4.1. Background

Contact eczema is a frequent disorder that sets in as a consequence of contact to allergens or skin irritants in the environment. Allergic and toxic contact eczemas appear at just about the same frequency, whereas urticaria is considerably rarer. Hand eczema appears in one year in approx. 12 per cent of the population and is in most cases due to contact eczema.

Skin disease is the third but most frequently reported work-related disorder in Denmark (1997), and contact eczemas represent approx. 95 per cent. As opposed to other occupational diseases, which are often the result of many years of hard work, contact eczema primarily affects young persons, and for more than half the onset of the disease is between 18 and 35 years of age. The disease affects women more frequently than men.

4.2. Diagnostic criteria

4.2.1. Clinical findings

The clinical findings in connection with allergic and toxic contact eczema cannot with certainty be distinguished from each other and will therefore be described under one heading. Contact eczema is an intensely itching skin disorder. In the acute phase there is redness, swelling, papules (small wheals) and vesicles (small blisters), and the skin changes may weep. In the chronic phase a thickening of the skin is seen, together with peeling and cracks.

As for urticaria, itching, redness and swelling develop within few minutes after the exposure.

4.2.2. Allergy testing

4.2.2.1. Patch tests – also known as epicutaneous testing

Patch tests are examinations for contact allergy (delayed hypersensitivity/"type-4 allergy"). Usually, in workers' compensation cases, epicutaneous testing will always be performed. A "standard test series" of allergenic substances (approx. 23, see glossary) is used for this purpose. These substances include metals, perfumes, preservatives, and rubber additives. Apart from this standard test supplementary samples can be tested, e.g. substances that the persons are exposed to in their work. Small extracts of the allergens are placed on the skin. The test is read after 2 and 3 days, and perhaps later as well.

| "Type-4 allergy" | |
|-------------------------|------------------------------------|
| Reactivity time | 2-3 days |
| Mediation | cells (t-lymphocytes) |
| Disease | contact eczema |
| Diagnosis | patch tests (epicutaneous testing) |

If one or more tests trigger an eczema reaction, it is called a positive reaction. This means that the tested person is allergic to the substance in question. Then it is up to the doctor to decide if the positive reaction is relevant in relation to the reported eczema disorder.

If an irritant reaction to a substance has been found, this does not mean that the tested person has a toxic eczema, but only that the test has caused skin irritation. This is because, for instance, the concentration of the substance has been too high in the test and has no correlation with toxic eczema.

4.2.2.2. Prick and RAST testing

A prick test is an examination for acute allergy ("type-1 allergy"), which is found in connection with urticaria (nettle rash), hayfever, asthma and anaphylactic shock. In this examination a small allergy extract is introduced into the top layer of the skin, using a small sharp instrument. The reaction is read after 15 minutes and shows a raised, red welt.

By means of a blood test it is possible to detect the antibodies in the blood that provoke the allergic nettle rash (radioallergosorbent/RAST test).

| "Type-1 allergy" | |
|-------------------------|--|
| <i>Reactivity time</i> | <i>minutes</i> |
| <i>Mediation</i> | <i>IgE antibody</i> |
| <i>Disease</i> | <i>nettle rash (urticaria)</i> <i>hayfever</i> <i>asthma</i> <i>shock</i> |
| <i>Diagnosis</i> | <i>prick test</i> <i>RAST test</i> |

4.3. Allergic contact eczema

Allergic contact eczema is present when there are clinical symptoms of contact eczema (established by a doctor) simultaneously with exposure to a substance to which the person is allergic. The allergy must have been established by means of a patch test (epicutaneous testing).

Frequent causes of work-related allergic contact eczema are

- nickel
- chromium
- rubber additives (e.g.: thiuram, mercapto, carbamate)
- preservatives (e.g.: formalin, kathon, parabens)
- epoxy and acrylate

4.4. Toxic contact eczema

Toxic contact eczema is present when there are clinical symptoms of contact eczema (established by a doctor), simultaneously with exposure to one or more substances which are known to cause skin irritation. There is no available test for establishing toxic contact eczema, but a negative reaction to epicutaneous testing indicates toxic contact eczema.

Frequent causes of work-related toxic contact eczema are

- detergents
- organic solvents
- oils
- cooling lubricants
- foods
- gloves

4.5. Urticaria

Urticaria of the allergic type exists when there are clinical symptoms of urticaria (established by a doctor), simultaneously with exposure to a substance to which the person in question is allergic ("type-1 allergy").

Urticaria of the non-allergic type appears when there are clinical symptoms of urticaria (established by a doctor), simultaneously with exposure to one or more substances that are known to trigger this reaction.

Frequent causes of urticaria are

- latex (natural rubber)
- foods
- plants
- medicaments

Chapter 5

Work-related contact eczema

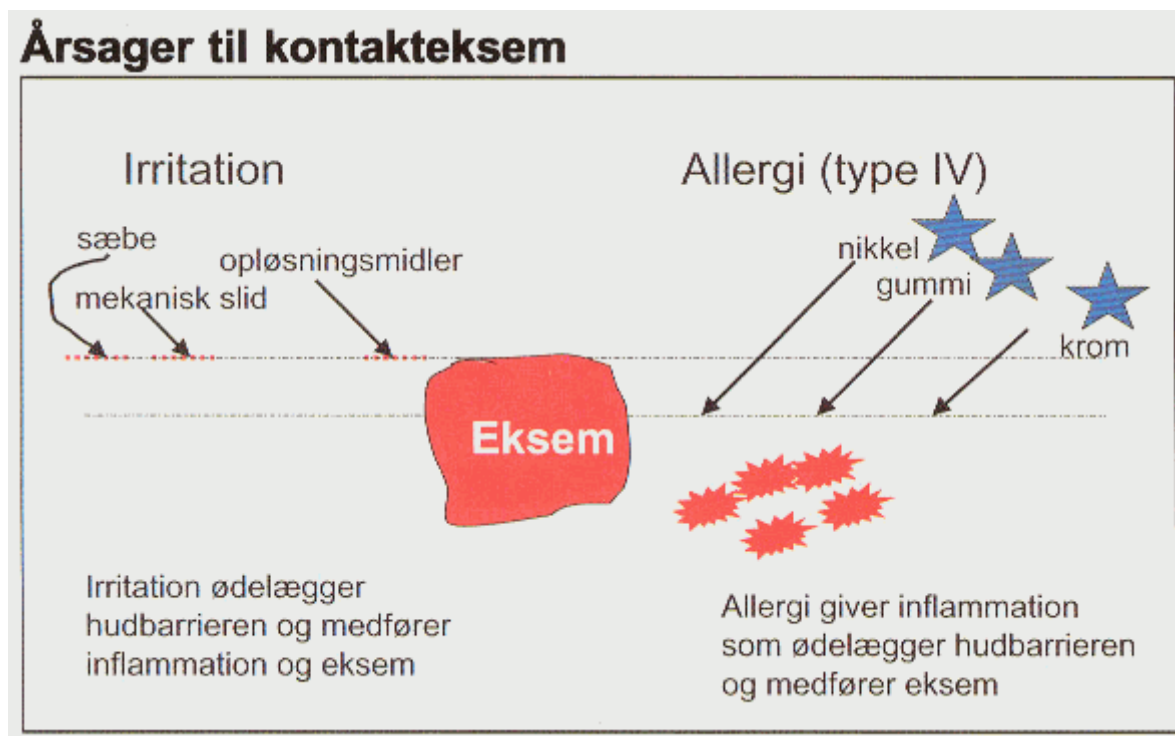
Work-related contact eczemas are frequently localised to the hands, but also feet, arms, legs, face, and, in rare cases, other skin areas, can be affected by the disease.

Work-related contact eczemas and work-related urticaria exist when the diagnostic criteria are met and the occupational exposure has been established. Apart from that, the general conditions of section 1 of the administrative order (see 1.1.) need to be met.

5.1. Exposures

5.1.1. Exposures in connection with allergic contact eczema

For reported allergic contact eczemas to be recognised, there must be proof of occupational exposure to the allergen(s) in question. The exposure must seem likely, e.g. due to direct detection of the allergen in the workplace (e.g. nickel in a tool), or through information on product composition. The occupational exposure must be deemed to be in excess of the exposure the person gets in his private life.



Example: A 50-year-old man with no previous history of skin problems is employed in a tannery, primarily working with chromium tanning of wet hides. He has been wearing protective gloves, but has not been able to prevent tanning fluid from running into the gloves. After six years of employment he develops eczema of hands and forearms. At the beginning, the eczema improves during holidays, but gradually gets worse and leads to sick leave and subsequent cessation of work due to the eczema. Allergy tests (patch tests) show allergy to chromate. The disorder is recognised as an occupational disease under A5 (chromium).

Example: A 53-year-old man works with grinding of epoxy units. He wears gloves sometimes, but his face is unprotected. After about a year he develops facial eczema, and after another year he develops hand eczema. He has no previous history of skin problems. Allergy tests (patch tests) show allergy to epoxy compounds, but are negative to the gloves used. The eczema changes are severe and require sick leave. The disorder is recognised as an occupational disease under B2 (epoxy).

5.1.2. Exposures in connection with toxic contact eczema

For reported toxic contact eczemas to be recognised, there must be proof of occupational exposure to irritant(s). There must be an account of the irritants that provoke the pathogenic effect, and there must be proof of causality between exposure and disease, including the intensity of the exposure. Here, too, the exposure must be estimated to be in excess of the exposure in the person's private life.

Example: A 55-year-old woman, who has been a cleaner for about 25 years, develops hand eczema. She has not primarily been wearing gloves. There is no previous history of skin problems. Allergy tests (patch tests) are negative. Continuing flare-ups of the eczema and several sick leaves. She has to give up the job in the end, and the eczema improves after that. The disease is recognised under B3 (wet work).

Example: A 30-year-old woman, who has worked for two years as a kitchen help, develops hand eczema. She handles foods and does odd jobs in the kitchen every day. Allergy tests are negative, including testing for foods. She has no previous history of skin problems. The disease is recognised under B3 (foods/wet work).

Example: A 25-year-old woman develops initial hand eczema while apprenticed as a hairdresser. Her work was primarily washing and dyeing of hair. Did not wear gloves. Washing of hair was done many times a day. Allergy tests (patch tests), including hairdressing samples, were negative. The disease was recognised under B3 (wet work).

5.1.3. Exposures in connection with urticaria

The conditions for urticaria are the same as for allergic and toxic contact eczema.

5.2. Special types of work-related contact eczemas or urticaria

5.2.1. Nickel allergy and eczema

Nickel allergy often appears in workers' compensation cases, nickel allergy being rather frequent. Approx. 15 per cent of Danish women and 3 per cent of Danish men suffer from nickel allergy, and the most common cause of nickel allergy is perforation of the ears (piercing) for wearing earrings.

In cases where the acquired nickel allergy is due to perforation of ears, the development of the nickel allergy is not work-related. Persons with nickel allergy following perforation of ears usually are aware of the allergy, either because of eczema of the earlobes due to nickel-containing

earrings or because of eczema following contact with other bright metal objects. The allergy may also have been diagnosed in connection with previous examinations by a dermatologist.

Persons with non-occupational nickel allergy may later be occupationally exposed to nickel, and this may lead to eczema. In these cases it is a work-related deterioration of a pre-existing condition. If the general and special conditions for recognition of the disease are met besides, the reported disease is recognised with reservations for pre-existing nickel allergy.

Contact eczema caused by nickel allergy in persons who have not previously had symptoms of nickel allergy and are occupationally exposed to nickel, and whose occupational exposure is estimated to be in excess of the private exposure, can be recognised as work-related. In this case the nickel sensitisation as such leads to an increase in the compensation, see chapter 8. The nickel content of metal objects can be examined by means of a nickel analysis kit (the dimethylglyoxim test).

Example: A 33-year-old woman with no previous history of skin problems has initial hand eczema after 6 months of cleaning work. She mostly wears gloves at work, but is also exposed to water and detergents. She has had eczema around shiny buttons in the uniform provided by the employer. Allergy tests (patch tests) show allergy to nickel. She has not previously had any skin rash due to bright objects, trinkets, buckles, etc. The employer confirms that the uniform buttons give off nickel. The eczema is recognised under B3 (wet work/gloves) and A9 (nickel).

5.2.2. Allergy to rubber additives

Manufactured rubber products contain additive substances such as thiuram, mercapto and carbamate. Contact eczema caused by allergy to one or more of these additive substances is rather normal.

Contact eczema caused by rubber additives in persons who have not previously had symptoms of this and are occupationally exposed to rubber products (e.g. gloves), and whose occupational exposure is estimated to be in excess of the private exposure, can be recognised as work-related.

Example: A 50-year-old woman employed as a nurse has initial hand eczema. She frequently wears rubber gloves and washes her hands several times a day. No previous history of skin problems. Allergy tests (patch tests) show allergy to rubber chemicals (thiuram-mix) as well as own gloves. RAST-analysis (test for allergy to natural rubber) is negative. The eczema recedes after change to plastic gloves. The eczema is recognised under B2 (rubber chemicals). When the decision on permanent injury is made, there is an addition of 5 per cent for the acquired rubber-chemical allergy, see 8.1.

5.2.3. Glove eczemas

Contact eczema caused by wearing gloves requires special mention, these eczemas becoming increasingly frequent, because glove eczemas can be caused by allergic or toxic contact eczema or urticaria. Glove eczemas cause symptoms such as slight or severe eczema changes on hands and wrist.

The frequent use of gloves may have an irritant impact on the skin, which then causes the development of toxic contact eczema, but the use of rubber gloves may also lead to the development of allergic contact eczema towards rubber additives, see 5.2.2. above. Furthermore, the use of rubber gloves may lead to the development of allergic urticaria towards latex.

Thus the diagnosing of glove allergy comprises epicutaneous testing (patch tests) as well as a prick test and/or RAST test.

| Glove eczema | Patch test with rubber additives* | Prick test with latex | RAST test for latex |
|---------------------|-----------------------------------|-----------------------|---------------------|
| Toxic | | | |
| Allergic | + | | |
| Urticarial** | | + | + |

*Thiuram, mercapto, carbamate

**One positive test is sufficient

Example: A 45-year-old woman, a qualified surgical nurse, develops hand eczema. Surgical washing of hands is performed, and rubber gloves are worn for several hours several times a day. She has no previous history of skin disease. Allergy tests (patch tests) show allergy to rubber additives (thiuram); furthermore prick testing is positive for latex. The eczema is recognised under B2 (rubber additives and latex).

5.3. Composite contact eczemas

The above paragraphs described the theoretical principles regarding allergic and toxic contact eczemas and urticaria. In practice, several of these eczema types often appear at the same time. A pre-existing toxic eczema breaks down the barrier function of the skin and makes the access of allergens to the skin easier. On the other hand, skin with on-going allergic contact eczema is more receptive to exposure from irritants like detergents. Thus these eczema types can appear at the same time, and both disorders can in that case be recognised.

Example: A 36-year-old woman, a trained cook, develops hand eczema. The hand eczema is at first only periodically present, but gradually becomes permanent. The eczema improves in periods without work, but does not recede. After some years of hand eczema there is an aggravation in connection with the handling of shrimps. She has no previous history of skin problems. The allergy test (patch test) is negative, but positive in prick testing for shellfish. The eczema is recognised under B3 (foods) and B2 (shellfish).

Chapter 6

Pre-existing and competitive disorders

6.1. Pre-existing disorders

6.1.1. Atopy

Atopy is a common name for the diseases atopic eczema, hayfever, and allergic asthma. These three diseases are closely related, since there is a common mode of inheritance, and since the presence of one disease makes a person disposed for the development of one of the two others. In relation to contact eczema, only atopic eczema is seen as a pre-existing disorder. A genetic predisposition for atopic disorders cannot either be regarded as a pre-existing disorder.

6.1.1.1. Atopic eczema

Atopic eczema is also called infantile eczema or asthma eczema. The symptoms are eczema localised at the flexor skin folds (elbows, knees, ankles, and wrists) and appear in particular in children, the frequency of the disease today being about 15 per cent. About 70 per cent, however, outgrow the disease before reaching adult age.

All who have or have had atopic eczema, are at an increased risk of developing toxic contact eczema of their hands, irrespective of occupation, and major surveys show that about 25-50 per cent of persons with previous or current atopic eczema will develop hand eczema.

If atopic eczema is the only or most substantial cause of the reported skin disorder, the disorder will not be recognised.

If the general and special conditions are met, but there is at the same time a pre-existing, current or previous atopic eczema that contributes to the reported disorder, without excluding recognition, the reported disorder is recognised with reservations. This may have an effect on the amount of the compensation.

If the general and special conditions are met and only short-term, passing and slight atopic eczema changes in childhood are described, the reported disorder is recognised without reservations.

Example: A 21-year-old man develops hand eczema while apprenticed as a baker. He has always had eczema in the flexor skin folds, but not previously on his hands. There is eczema on the lateral surfaces of all fingers and the upper side of the hands. He is examined by way of allergy tests, including testing for food or flour allergies, all negative. The eczema is recognised under B3 (foods) with reservations for pre-existing atopic eczema. The reservation is weighted at 25 per cent.

Example: A 27-year-old man, who works as an ambulance auxiliary, suffered from atopic eczema in his childhood and as an adult before taking up the present job. Uses rubber gloves in his work every day and gets flare-ups of his hand eczema and facial eczema. The allergy test (RAST) is positive for latex antibodies (allergy to natural rubber). The eczema is recognised under B2 (latex) with reservations for pre-existing atopic eczema. The reservation is weighted at 50 per cent. The decision on permanent injury grants an extra 5 per cent allowance for the latex allergy, which is not affected by the reservation made.

6.1.2. Psoriasis

Psoriasis is a skin disease appearing in 2 per cent of the population. In persons suffering from psoriasis, an influence on the hand, for example friction, may trigger psoriasis elements on exposed skin, typically on the hands. Besides, hand psoriasis may be difficult to distinguish from chronic eczema change. Psoriasis cannot be recognised as an occupational disease on the basis of the list.

If, due to an established work exposure, the pre-existing psoriasis deteriorates, it will be decided in each specific case if the reported skin disorder should be recognised with reservations.

6.1.3. Other skin diseases

A few other skin diseases can be pre-existing or competitive disorders in relation to contact eczema.

6.1.4. Allergies

Pre-existing allergies may have an effect on the current eczema, but not necessarily so. The situation is handled as in cases of nickel allergy.

Example: A 48-year-old woman, who worked for 20 years as a dentist's assistant, develops eczema on her fingertips. She had her ears pierced while in school and developed eczema in that connection. She has not previously suffered from hand eczema. The allergy tests (patch tests) show allergy to nickel as well as acrylates. The injured person is frequently in contact with

acrylate, which is used for tooth fillings. There is no documented exposure to nickel. The eczema is recognised under B2 (acrylates) with reservations for pre-existing, private nickel allergy. The reservation is not weighted.

Example: A 39-year-old woman has been working for the past five years as a supermarket cashier. She handles coins all day and after some months of work develops hand eczema. She had her ears pierced at the age of four and as a 10-year-old first experienced eczema at the earrings. Since then she has several times had eczema in connection with fake jewellery. She never had hand eczema until in her present job. The eczema is recognised as a deterioration of a pre-existing, private nickel allergy. The reservation for the pre-existing eczema is weighted at 25 per cent.

The weighting of the reservation takes into account the localisation of the eczema before and after the industrial injury. The weighting is always based on a concrete assessment.

6.2. Competitive disorders

Contact eczemas may have been caused by competitive exposures/disorders. A person who is exposed to an allergenic or irritant factor in his work and thereby develops a contact eczema, may at the same time be exposed to similar factors in his free time, thus developing competitive exposures and disorders.

Chapter 7

The employer liable to provide protection

7.1. The employer liable to provide protection – general principles

Section 6(4) of the Act on Protection against the Consequences of Industrial Injuries sets out the employer who is primarily liable to provide protection in the event of occupational diseases, including work-related skin disorders.

Thus the employer liable to provide protection is the most recent employer, prior to the onset of the disease, in whose business the injured person was exposed to harmful substances that must be deemed to have led to the disease in question. This does not apply, however, if it can be established that the disease was caused by work in a different business.

If it is not possible to point with some certainty to the employer liable to provide protection, the case is assigned a specific trade code.

In connection with the recognition of a work-related contact eczema it can be difficult, in certain situations, to determine the employer liable to provide protection.

7.2. Toxic contact eczemas

The toxic contact eczemas are as a rule of thumb recognised with the present or most recent employer as the employer liable to provide protection.

If there are several employers, however, the employer liable to provide protection is the business employing the person in question at the onset of the eczema. One condition, however, is that the person in question has had an eruption of eczema since the onset, and that it cannot be established that the eczema was caused by work in a different business.

If, however, the person in question has been free of eczema for six months or longer, the employer liable to provide protection is in principle the business that employed the person as the eczema flared up again. On condition, however, that there have not later been any longer-lasting eczema-free periods.

7.3. Allergic contact eczemas

Allergic contact eczemas are recognised with the business where the allergy was caused as the employer liable to provide protection.

As a main rule, the allergy will be seen as having been sustained in the workplace where the person in question was employed on the date the allergy was established, on condition that the person was exposed to the allergenic substance(s) in the same workplace.

If the person in question has been intensively exposed to the same substances with a previous employer, however, the previous employer may be elected as the employer liable to provide protection.

7.4. Mixed toxic and allergic contact eczema

If the person has already obtained a recognition of a toxic or an allergic contact eczema, and if complications to the previously recognised skin disorder turn up several years later, it is still the previously elected employer that is liable to provide protection.

If it is an entirely new skin disorder, however, which, according to a medical assessment, is not a complication to the previously recognised skin disease, the question of determining the employer liable to provide protection will depend on the type of contact eczema sustained by the person in question, see 7.2. and 7.3. above.

Chapter 8

Permanent injury and loss of earning capacity

Compensation for permanent injury or loss of earning capacity is only granted with regard to that part of the disease which is caused by work. This means that the National Board of Industrial Injuries makes a specific assessment of the part of the disease that is work-related.

8.1. Compensation for permanent injury

Compensation for permanent injury is determined in accordance with section 33 of the Act on Protection against the Consequences of Industrial Injuries.

The degree of permanent injury is determined on the basis of the medical nature and scope of the injury and in view of the nuisance in the person's daily life.

The disorders under group A, items 5 and 9, and group B, items 2 and 3 of the list, are listed in the guiding permanent-injury rating list of the National Board of Industrial Injuries. This is a normal table, which means that the National Board of Industrial Injuries will in principle make decisions according to what the rating list sets out for the injury in question, but will disregard it under very special circumstances.

If the disorder is recognised with reservations, this will in certain cases affect the permanent injury rating. This means that the pre-existing or competitive disorder in certain cases causes a reduction in the total permanent injury rating.

It should be noted that a specific permanent injury rating is given for work-related allergy to frequently occurring allergens. These are: nickel, chromium, formaldehyde, rubber chemicals, and latex.

If the eczema heals up as the exposure is brought to an end, the compensation for permanent injury is rated at less than 5 per cent.

8.2. Compensation for loss of earning capacity

The assessment of loss of earning capacity is made in accordance with the provisions of section 32 of the Act on Protection against the Consequences of Industrial Injuries. This assessment takes into account the person's chances of making such a living through work as can reasonably be expected of the person in question, in view of the person's talents, education, age and chances of occupational rehabilitation.

The practice of the National Board of Industrial Injuries is laid down in the Board's guide to compensation for loss of earning capacity.

It should be noted in this connection, however, that it is possible in certain cases to grant compensation for loss of earning capacity, even though the exposure has finished and the permanent injury has been determined at less than 5 per cent. This is because the citizen sometimes has to give up work due to the recognised disorder and change to another occupation. The citizen may start on a new education, for example. In that case we grant compensation for loss of earning capacity, perhaps temporarily in the form of a monthly benefit. It is a condition, however, that the citizen cannot take up other work that may reasonably be expected of him or her.

National Board of Industrial Injuries, June 29, 2001

Anne Lind Madsen / Torben Langer

Appendix 1

Glossary

Allergen: A substance that causes an allergic reaction

Allergic contact eczema: Contact eczema triggered by allergens

Atopy: Risk of allergic asthma, hayfever, and atopic eczema

Delayed hypersensitivity: Allergic response triggered by a cell reaction in the skin, may cause eczema (also known as "type-4 allergy")

Epicutaneous testing: Patch test (delayed hypersensitivity)

Irritant: Substance that may trigger irritant/toxic eczema

Latex: Natural rubber

Patch test: Epicutaneous testing, test for contact allergy (delayed hypersensitivity/"type-4 allergy")

Prick testing: Test for acute allergy ("type-1 allergy")

Radioallergosorbent test: See RAST test

RAST test: Blood test that examines the same as the prick test

Sensibilisation: Application and/or development of allergy

Standard test series: Generally used test series with 23 patch samples of frequent allergens

Toxic contact eczema: Contact eczema triggered by irritants. Also known as toxic eczema

"Type-1 allergy": Allergic reaction triggered by antibodies in the blood; may cause nettle rash, asthma, and general symptoms with anaphylactic shock

Urticaria: Nettle rash triggered by contact with substances in the environment, may be due to a "type-1" allergic reaction or a non-allergic reaction

Appendix 2

References

Agner T: "Susceptibility of atopic dermatitis patients to irritant dermatitis caused by sodium lauryl sulphate".

Acta Derm Venereol (Stockh) 71:296-300, 1991.

Halkier-Sørensen L, Peteren BH, Thestrup-Petersen K: "Erhvervsbetingede hudsygdomme". Industriens Forlag 1-110,1994.

Den Danske Kontaktdermatitisgruppe: "Referenceprogram om kontakteksem". Ugeskrift for læger, 159, suppl. 6, 1997.

Meding B: "Epidemiology of hand eczema in an industrial city". Acta Derm Venereol. Suppl. 153, 1990.

Nielsen NH, Menné T: "Allergic contact dermatitis in an unselected Danish Population". Acta Derm Venereol 72:456-460, 1992.

Rysted I: "Hand eczema in patients with history of atopy manifestations in childhood". Acta Derm Venereol (Stockh) 65:305-312, 1995.

Sundhedsstyrelsen: "Forebyggelse af kontakteksemer". Forebyggelse og sundhedsfremme 1998/12.

The clinical photographs were kindly provided by Niels Veien, MD, MDSc.

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