

Hand eczema is the commonest work-related skin disease and most often affects those engaged in 'wet work'. Tidsskrift for Den norske legeforening The occupational anamnesis maps the patient's occupational exposure to skin irritants and allergens in order to identify any association between occupational exposure and disease onset/ exacerbation and any improvement during time off work. Tidsskrift for Den norske legeforening BRITT GRETHE RANDEM EVA STYLIANOU A Norwegian population-based study showed a prevalence of hand eczema of 11.3 %, of which just over one-third was work-related (3). Figure 1 shows the proportion of the workforce treated by the specialist healthcare service for contact dermatitis in the period 2012–14. Clinical picture, risk factors and classification Hand eczema can be classified on the basis of aetiology, morphology and/or localisation (1). Irritant hand eczema is a diagnosis of exclusion, and patients must be assessed for possible allergy-related causes of the eczema (2). Box 1 Definition of wet work (10) Wet work is work in which the hands: are in contact with water for two hours or more per day, are washed more than 20 times per day, or are covered by tight gloves for two hours or more per day Allergic hand eczema occurs as a result of skin contact with a substance that triggers an immunological response, most often a cell-mediated immunological response (type IV). The most vulnerable occupational groups include hairdressers, mechanics, welders and dentists (11) (Figure 2). Diagnosis When work-related hand eczema is suspected, the aim is to identify the triggering allergen or irritant. Collaboration between general practitioners, dermatologists and occupational physicians is often necessary to determine whether occupational exposure is the cause of hand eczema, and to identify the triggering allergen or irritant. Tidsskrift for Den norske legeforening Acute hand eczema usually presents as erythema, oedema, vesicles and papules. Work-related hand eczema is best prevented by reducing exposure to skin irritants and allergenic substances, for example by replacing products that cause irritation. The Labour Inspection Authority can visit workplaces and recommend preventive measures (5). The aim of tertiary prevention is medical, occupational and social rehabilitation. Chronic hand eczema is characterised by erythema, oedema, skin thickening, scaling, fissures and erosions. Occupational groups that are particularly exposed to wet work include hairdressers, healthcare personnel, cleaners, kitchen/canteen workers, mechanics, construction workers and farmers (4, 11). Frequent occupational allergens are hair dyes, preservatives, metals, rubber, formaldehyde, epoxy, acrylates and isocyanates (11). The company occupational health service can provide information on exposure conditions, occupational hygiene measurements, workplace visits, adaptation of occupational tasks and relocation during the treatment phase. In various sporting activities such as handball, weightlifting, golf and tennis, players may come into contact with rubber-based allergens or resins (e.g. in the grips on golf clubs/tennis rackets). Other common differential diagnoses include atopic eczema, scabies and palmoplantar Epicutaneous testing (patch testing) is used to diagnose allergic contact eczema in cases of chronic or recurrent hand eczema. When the triggering agent cannot be determined, it may (exceptionally) be necessary for the patient to go on sick leave as a test to clarify whether the eczema is work-related. Treatment The most important aspect of treatment is early intervention to identify and remove relevant irritants/allergens. It is important to be aware that glove use may in itself cause hand eczema, either as a result of sensitisation to the glove material (e.g. thiurams, carbamates, latex) or because of the moist environment that the glove creates, so-called

occlusion dermatitis. Mutation of the gene for filaggrin, a barrier protein in the skin, is a risk factor for both atopic eczema and chronic hand eczema (9). The test material is selected based on the occupational and environmental anamnesis such that relevant contact allergens from both the home environment and the workplace are included. There are also test series available for various occupational exposures, such as a hairdressing series, an oil and cooling fluids series, a dental series, etc. Skin prick testing can be performed using standardised extracts or via the prick-by-prick test method with fresh materials, such as fish, fruit or vegetables. Persons with work-related hand eczema should apply to the Norwegian Labour and Welfare Administration to have the condition approved as an occupational illness. Various data sources suggest that the disorder occurs frequently in service workers and offshore workers (4, 5).