

Letter to the Editor

Allergic contact dermatitis caused by durable-press finishes does exist in the USA

To the Editor,

de Groot and Maibach (1) make several excellent points supported by previous review articles (2) and our subsequent experience. The prevalence of allergic contact dermatitis resulting from durable-press finishes (DPFs) has decreased in the USA, and most patients with a 'textile pattern' of dermatitis do not have positive patch test reactions to DPFs (3).

However, the statement that contact dermatitis caused by DPFs does not exist in the USA is inaccurate. The level of formaldehyde released by most apparel fabrics is too low to cause primary sensitization, but in occupationally sensitized patients (2), allergic contact dermatitis caused by DPFs is still observed. We are still diagnosing patients with relevant DPF allergy associated primarily with uniforms (e.g. water-resistant laboratory coats, zip-up greens worn by machinists, and military wool garments). A case report embedded in the 2004 review (2) describes a formaldehyde-allergic dialysis technician with a positive patch test reaction to DPFs whose allergy cleared when she discarded her laboratory coat, which was in contact with her skin in the areas of her dermatitis. This meets reasonable criteria for current clinical relevance of a positive patch test reaction, and the diagnosis is not based solely on the positive patch test reaction to a DPF.

In addition to uniforms, in which older formaldehyde-based textile resins are still often used, there are several other possible sources of exposure that can lead to textile resin allergy. In a study by Groot et al. (4), 2 of 12 patients were demonstrated to have skin reactions to cosmetics estimated to contain about 200 ppm free formaldehyde. It is possible that these patients might have reacted to even lower levels. A second study, by Zachariae et al. (5), suggested that the threshold for allergic reactions in cosmetics is probably between 130 and 370 ppm free formaldehyde. In the latter study, 5 patients did not react to cosmetic products containing 130 ppm free formaldehyde; however, this is a small sample, and it is possible that there are some patients who will react to very low levels of free formaldehyde. Therefore, although most textiles made today contain <200 ppm free formaldehyde, it can be assumed that textiles releasing close to 200 ppm free formaldehyde could be

potential sources of allergic reactions in some individuals. In addition, there are probably some garments being produced in various countries that are exceptions to the general trend and use older resins that release >200 ppm free formaldehyde. Also, many individuals own older clothing (including vintage clothes), which would be expected to release higher levels of free formaldehyde. Finally, cotton upholstery may contain older textile resins that release higher amounts of free formaldehyde, and direct contact of skin with such furniture is a very real source of potential contact allergy.

Because of public health legislation in the EU (1), the prevalence of textile dye dermatitis and that of DPFs have probably decreased more quickly in the EU than in the USA. The USA is fortunate to benefit, to some extent, from global regulation.

This topic was recently reviewed in the journal *Dermatitis* (6). Although we agree with de Groot and Maibach, in their excellent review, that the prevalence of textile finish allergy is decreasing, the reports of its death may be greatly exaggerated!

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