

# **Use of textiles in atopic dermatitis: care of atopic dermatitis.**

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Atopic dermatitis (AD) is a chronic relapsing inflammatory skin disease which usually starts during the first years of life. In the management of AD, the correct approach requires a combination of multiple treatments to identify and eliminate trigger factors, and to improve the alteration of the skin barrier.

In this article we try to explain the importance of skin care in the management of AD in relation to the use of textiles: they may be useful to improve disrupted skin but they are also a possible cause of triggering or worsening the lesions. Garments are in direct contact with the skin all day long, and for this reason it is important to carefully choose suitable fabrics in atopic subjects who have disrupted skin. Owing to their hygienic properties fabrics produced from natural fibres are preferential. Wool fibres are frequently used in human clothes but are irritant in direct contact with the skin. Wool fibre has frequently been shown to be irritant to the skin of atopic patients, and for this reason wool intolerance was included as a minor criterion in the diagnostic criteria of AD by Hanifin and Rajka in 1980.

Cotton is the most commonly used textile for patients with AD; it has wide acceptability as clothing material because of its natural abundance and inherent properties like good folding endurance, better conduction of heat, easy dyeability and excellent moisture absorption. Silk fabrics help to maintain the body temperature by reducing the excessive sweating and moisture loss that can worsen xerosis.

However, the type of silk fabric generally used for clothes is not particularly useful in the care and dressing of children with AD since it reduces transpiration and may cause discomfort when in direct contact with the skin.

A new type of silk fabric made of transpiring and slightly elastic woven silk is now commercially available (Microair Dermasilk) and may be used for the skin care of children with AD. The presence of increased bacterial colonization has been demonstrated in patients with AD.

Such colonization has been included in the group of trigger factors for eczema in AD. Silver products have recently been demonstrated to offer two advantages in the control of bacterial infections.

Textiles may be used not only for clothes, but also to prevent dust mite sensitization in atopic patients. A marked clinical improvement of AD was observed in a group of adults and children with positive skin tests (not necessarily towards mites), after an intensive eradication programme for mite allergens.

Skin treatment with acaricide and house dust mite control measures can decrease AD symptoms.

Different textiles have various potential worsening links with allergies: e.g. clothing has been proposed as an additional source of exposure to mite and cat allergens.

On the other hand, special textiles can be used to prevent dust mite sensitization.