

Title of the project: TEXDERM - Comfortable textiles and clothing fulfilling specific needs of kids with skin problems

Grant Agency: Ministry of Industry and Trade

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Co-investigators: V. Wertzová

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Summary of 2017 results

Title of the presentation: Determining standards of clothing for kids with skin problems

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Project assesses needs of specific clothing in kids with skin diseases. Properties of clothes have to be in concordance with underlying skin disorder and to cohere with complex skin management. Many textiles have been developed for adults with skin troubles but extensive research and development of clothes for children is still missing.

Main requirement for such textiles is softness, tenderness and lack of irritation of the skin.

In very sensitive eczematous skin even very weak stimulus can provoke strong itching and subsequent excoriations.

Textiles for eczematous diseases need to have "non-sharp" fibers, firm weaving, clean seams and suitable threads. Labelling with instructions has to be allocated outside the underwear. The material of seams must not irritate (wool is inappropriate) and buttons or zipper must not cause contact allergy. Very important are also antiseptic properties of the surface of used materials, because skin in atopic dermatitis tends to become easily impetiginized.

Additional features contribute to attractiveness of clothes: modern fashion and aesthetic design with acceptable colors. Very important from psychological point of view is also ability to cover skin lesions. Easy-to-wash surface is essential to remove remains of topical treatment or scales. Durability and low prices are also desired for better market accessibility.

Clothes of optimal properties will be prepared at the laboratories of our co-investigators (Technical University in Liberec and Investigative Institute of Cotton in Ústí nad Orlicí). Wearing tests will start after thorough laboratory testing and approval of safety.

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