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Wool & Skin

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Superfine Merino & Childhood Dermatitis

Due to a reduced ability of their skin to retain moisture and resist infection, chronic sufferers of atopic dermatitis are faced with a lifetime of needing to constantly apply skin moisturisers, avoid heat, and often rely on prescribed anti-inflammatories in the form of topical steroid and antibiotic creams, and even oral antibiotics to manage their conditions.

In the first clinical study examining the clinical effects of superfine Merino wool on atopic dermatitis, researchers found that superfine Merino wool clothing reduced the severity of paediatric mild-moderate atopic dermatitis. The study concludes that traditional management guidelines classing all wool-based clothing as irritants should be modified to include superfine merino wool as a recommended clothing choice in childhood atopic dermatitis.

“Superfine Merino wool clothing reduced the severity of paediatric mild-moderate atopic dermatitis”

Understanding Skin Allergies

“A major focus of The Woolmark Company’s investment program is validating and communicating the health and wellbeing benefits of wool products,” says Dr. Paul Swan, General Manager, Research at The Woolmark Company. “There is a strong trend in the market towards healthy and environmentally friendly products, and wool’s natural attributes make it very suitable as an integral part of everyone’s health regime. Our suspicion has been that by actively buffering the skin surface moisture and temperature levels, Merino wool would alleviate some of the symptoms caused by atopic dermatitis – acting as a second skin.”

With common misconceptions that wool is an irritant and exacerbates itchy and dry skin, this pilot study may help change the public perception of wool, describing it as not only a low allergy risk, but also a low irritant with a therapeutic effect. Apart from the custom-made bras, all garments used in the study are commercially available, so any sufferer of skin disease may experience firsthand the benefits of superfine Merino wool undergarments.

Prickle Versus Allergy

Irritation, itchiness or prickliness is not the same as allergy. Prickle and itch is more accurately called irritation, not allergy. Fabric is composed of fibres. The fibres will be of similar fineness but some will be coarser/finer than others. The prickle sensation generated when fabrics touch skin occurs when the ends of the fibres of a fabric trigger nerves in the skin. These sensations are not specific for wool fibres, but occur across many fibre types.

Coarser fibre ends can press hard enough against the skin to trigger nerve endings known as nociceptors. The triggered nerve will send an electrical signal to the brain. If the brain receives several of these signals from the same local area of the skin, it interprets these as a prickly sensation. Studies show that perception of irritation corresponds to the fineness of a fabric. Eczema sufferers have particularly sensitive skin, often believing they are allergic to wool. However Australian studies are showing that superfine Merino garments are well tolerated by eczema sufferers and are indeed beneficial, with a reduction in eczema symptoms being seen after 3-4 weeks of changing to superfine Merino base layer garments. Commercially available superfine Merino is 15-18.5 microns. Ultrafine Merino garments are 11.5-15 microns.



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About IWTO

With a world-wide membership encompassing the wool pipeline from sheep to shop, the International Wool Textile Organisation (IWTO) represents the interests of the global wool trade. By facilitating research and development and maintaining textile industry standards, IWTO ensures a sustainable future for wool. To learn more about IWTO and its activities, visit www.iwto.org.

