



ATOPIC ECZEMA/DERMATITIS

## HIGHLIGHTING THE ROLES OF THE CUTANEOUS MICROBIOME

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Since the definition of cutaneous microbiome has been proposed, numerous studies focused on clarifying the roles of skin microorganisms in maintaining homeostasis.

Various microbes (bacteria, viruses, fungi) are found on the skin surface, including in the adnexal structures as sebaceous glands, sweat glands and hair follicles. The diversity of the skin microbiome is influenced by factors like pH, temperature, dryness and humidity.

The skin is the interface between the organism and potentially pathogen microorganisms. In order to protect against infection, the skin barrier has to be intact. It has been suggested that the normal flora, harbored on the surface of the skin, may contribute to maintaining the integrity of the skin barrier, blocking the invasion of opportunistic or pathogen agents.

*Staphylococcus epidermidis*, a mutualist commensal bacteria interacts with the innate immune response, by having the ability to recruit neutrophils. Studies have shown that the commensal flora is able to stimulate T-helper 1 cells and inhibit t-helper 2 cells, which are key factors in the pathogenesis of atopic dermatitis

This paper aims to highlight the multiple roles of the cutaneous microbiome, the clinical significance of normal flora and the possibilities for the development of new hypothesis into the pathogenesis of chronic inflammatory skin diseases.

