

**Healing from inside out: The gut skin connection in dermatology**

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*Respected Editor,* As the dermatology continues to evolve, aesthetic concerns take precedence. Achieving flawless skin is a universal aspiration, yet many individuals struggle with various dermatological conditions. While treatments are predominantly topical, the role of the gut-skin axis cannot be overlooked. The bidirectional interaction between skin health and gut microbiota is known as the gut-skin axis.<sup>1</sup>

The diverse microbial communities within the human gut play a crucial role in maintaining gut-skin homeostasis. Disruptions in gut microbiome-immune system interactions can have repercussions on the skin, which may accelerate the onset of skin disorders.<sup>2</sup> Many dermatological conditions stem from an imbalanced gut microbiome, necessitating strategies to restore its health. A key approach involves incorporating probiotics and prebiotics into the diet to enhance gut microbiota composition. Improved gut health can, in turn, promote skin healing. Probiotics have been shown to strengthen the skin's mechanical barrier, particularly benefiting individuals with acne.<sup>3</sup> Additionally, a study demonstrated that probiotic and prebiotic supplementation shifted the inflammatory profile of psoriatic patients towards an anti-inflammatory state.<sup>4</sup> Probiotics may exert beneficial effects

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through the gut-skin and gut-skin-brain axes, further supporting their role in dermatological health.<sup>5</sup>

There is substantial clinical evidence supporting the notion that a healthy gut contributes to healthier skin. Dermatologists should consider prescribing safe probiotic and prebiotic supplements alongside conventional topical treatments to promote holistic healing. Probiotics and prebiotics hold the potential to transform skin health from within, offering a promising adjunctive strategy in dermatological care. However, further research is required to refine treatment guidelines and determine long-term efficacy.

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