

## EFFECT OF DIETARY TERPENOIDS ON SKIN HEALTH

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### ABSTRACT

Factors such as exposure to pollutants, UV radiation, unhealthy dietary habits, addiction, lifestyle changes, stress, and lastly genetic factors predispose an individual to dermatological problems such as early aging, premature onset of wrinkle formation, collagen breakdown, dryness, pigmentation, infections, inflammation, and skin diseases such as acne, psoriasis, eczema, and even skin cancer etc. Terpenes are ubiquitously present in citrus fruits, carrots, tomatoes, mint, and neem leaves and are taken in moderate amounts in a regular diet. Some of the prominent terpenoids and carotenoids identified to have vital roles in maintaining and rejuvenating skin health include D-limonenes, linalool,  $\alpha$ -, and  $\beta$ -carotenoids,  $\alpha$ -bisabolol, myrcene, geraniol, lutein, zeaxanthin, lycopene, nerol etc. They have demonstrated anti-inflammatory, antioxidant, and antimicrobial properties as well as they have shown potential in preventing transepidermal water loss, thereby moisturizing and hydrating skin, regulating sebum secretion and oil production. They are known to detoxify skin, act as anti-rubefacient, and prevent aging, keeping the skin free of blemishes and protecting the skin from harmful UV radiation and pigmentation. They facilitate skin repair and mitigate light-induced damage to the skin. Lastly, they may enhance penetration of active ingredients across the skin's physiological barrier and can thus increase the efficiency and effectiveness of topical preparations. However, common people still lack the right understanding of the link between dietary terpenes of natural origin and their effects on maintaining, promoting, and rejuvenating the health of the skin. Moreover, excessive terpene intake through foods may cause allergic manifestations, photosensitivity, and thus they should be taken in restricted quantities regularly. Diet management and food-borne terpenoids of therapeutic interest can be of great help in cosmetic and dermatological care.

**Keywords :** Acne, aging, carotenoids, dietary, limonene, skin care, terpenoids, wrinkles