

Protecting the balance of skin microbiota is essential for maintaining an effective skin barrier: an evidence review

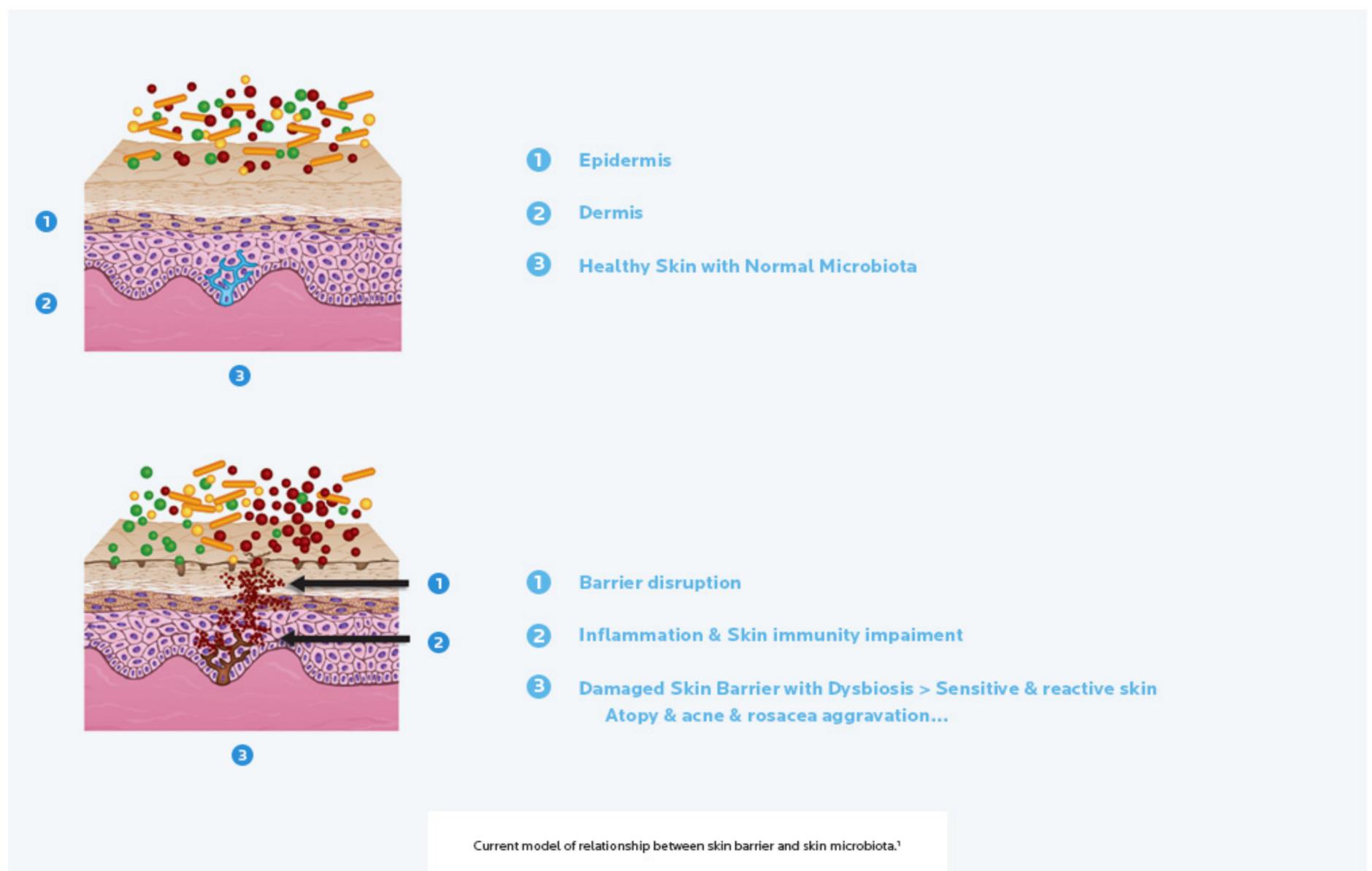
SKIN & MICROBIOTA

HOT TOPIC

Human skin is a complex barrier organ providing an ecological niche for a wide range of microorganisms.

Published in 2017, this paper reviews recent information on the relationship between skin microbiota and skin barrier function and considers mechanisms that may help to maintain it, particularly in the objective of rational development of skincare products.

The skin barrier may be impacted by various endogenous and exogenous factors (UV radiation, pollution or topical medications or products...) to which the skin is constantly exposed. These factors can initiate or exacerbate inflammatory skin conditions, especially those associated with barrier dysfunction, such as skin sensitivity and reactivity, skin allergic reactions, atopic dermatitis, acne, psoriasis and rosacea.



On the other hand, the skin's bacterial landscape is highly dynamic with both the composition and relative abundance of bacteria varying considerably across individuals, under the influence of gender, age and ethnicity. External factors (climate, UV radiation, pollution) and lifestyle factors (diet, hygiene habits, drug or alcohol consumption) may also influence the composition of the skin microbiota.

Yet, alterations of the skin microbiota composition and diversity – named dysbiosis - may contribute to skin barrier dysfunction. Furthermore, defects in the skin structural barrier may result in chronic inflammation and a loss of microbial diversity.

All in all, the symbiosis between the skin and its microbiota is necessary for an efficient skin barrier function. Accordingly, maintaining the normal, highly diverse skin microbiota is important for skin health; this can be achieved by the regular use of appropriate skin care products, formulated especially to increase activity and growth of beneficial microbiota, prevent skin dysbiosis and restore efficient skin barrier function.

Bibliography

1 - Baldwin H.E., Bhatia N.D., Friedman A. et al. The Role of Cutaneous Microbiota Harmony in Maintaining a Functional Skin Barrier. *J Drugs Dermatol.* 2017;16(1):12–8.