

Sensitive Skin and Cosmetics

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Abstract

The meaning of the term sensitive skin is still being debated and at present is not well defined. Dermatologists and allergologists have known for a long time that sensitive skin is a reality. It complicates both the diagnosis and treatment of skin diseases and it complicates the application of skincare products as well. Clinicians and people working in the personal care industry know that some individuals experience negative reactions and sometimes show traditional signs of irritation whenever certain products are applied to their skin. The reasons may seem to be obvious, but sometimes the complaints and signs of irritation occur in individuals appearing to be normal. Many topical pharmaceuticals and cosmetics, free of unknown compounds, cause allergic hypersensitivity in some individuals and yet produce an unremarkable clinical picture in others. Often these people show visible skin reactions on the butterfly area of the face such as erythema, as well as non-inflammatory sequelae such as dryness and roughness. They may claim to have tried up to twenty or more different creams without solving the problem. This observable hyperreactivity of the skin has been found in all the different racial groups, but it occurs in Asians more than Caucasians. These different reactions may most probably be caused by greater exposure to the sun and higher relative humidity. Individual skin sensitivity may play an important role in determining both patient compliance and the efficacy of topical pharmaceuticals and cosmetics. Perhaps the hyperreactivity of sensitive skin is correlated to an increase in transcutaneous penetration of water soluble chemicals. Sensitive skin labelled cosmetics can be applied to the following types of individuals:

1. Those who have obvious skin diseases such as psoriasis, contact dermatitis, atopic dermatitis etc.
2. Those who have atypical clinical signs of skin diseases or internal medical conditions such as diabetes, scleroderma etc.
3. Those who have experienced skin problems such as contact dermatitis, skin inflammations etc.
4. Those who do not fit into one of the above categories and appear to be normal.

In addition, relationships should be sought between symptoms and provoking factors, especially those involving chemical compounds. It is also necessary to investigate the hydrolipid layer of sensitive skin as well as the structured lipid-water bilayer system of the horny layer. Dryness and roughness may be the result of an unbalanced skin barrier. Water can plastify the horny layer and significantly change the skin's elasticity and permeability. People with sensitive skin may have impaired mechanisms of percutaneous absorption and consequently suffer from skin hyperreactivity due to the increased amount of irritants absorbed. Cosmetic products have to be designed cautiously. Both the vehicles and the active ingredients must be carefully selected and evaluated. The increasing number of new active ingredients and the possibility of future difficulties with nanoparticles in cosmetics will not reduce problems with this bothersome challenge.

Sensitive Skin – no Definition

At present the definition of sensitive skin is still being debated: it is a never-ending story. Contradictory findings have been reported in a great number of publications. Some investigators report that sensitive skin seems to be due either to a constitutional anomaly, or caused by skin diseases, ageing or occupational exposure to sun or other irritants. On the other hand, others found no constitutional increase in skin reactivity.



Figure 1. Some parts of the human skin are very sensitive in all people