Sensitive Versus Sensitized: The Genetic Difference

by Dr. Diana Howard

Millions of people perceive their skin as sensitive. Although these numbers vary across the world, the American Academy of Dermatology reports that 50% of the United States population experience some form of sensitive skin1. Globally, it is of increasing concern, especially among women. In Europe, the United States and Japan, the prevalence of sensitive skin is about 50% in women and 30% in men, with younger adults reporting more sensitivity than older adults2.

In reality, there is sensitive skin (a genetic trait) and there is sensitized skin, a growing phenomenon worldwide caused by increased exposure to pollution, stress and chemicals. The growing number of people affected by sensitization has spurred cosmetic and pharmaceutical industries to develop new products to help combat the reactions triggered by this condition.

A true sensitive skin condition is caused by a genetic predisposition. Someone who is truly sensitive is born with this condition and tends to be prone to blushing, asthma and allergies. This skin is considered more delicate with a lower amount of pigment, a thin epidermis, and blood vessels close to the skin surface, hence the obvious appearance of redness. Sensitive skin is often the result of a defect in the skin's protective outer layer – known as the epidermal lipid barrier layer – allowing irritants, microbes and allergens to penetrate the skin and cause adverse reactions. A disturbed epidermal lipid barrier is an important component in several inflammatory skin diseases such as rosacea, atopic dermatitis, psoriasis and eczema.

Rather than a result of genetics, sensitized skin is a reflection of your environment, lifestyle and physiology. Pollution, stress, hormonal fluctuations, smoking, alcohol, poor diet, medical procedures and even over-processed or exfoliated skin can all lead to sensitization. Cosmetic ingredients including alcohol, lanolin, fragrance and D&C colorants can also lead to sensitized skin. While those with fair skin (usually of Northern European ancestry) traditionally experience sensitive skin, sensitized skin can be triggered in any person regardless of racial background or skin color. Approximately 36% of the population in China has declared themselves as sensitive3, a condition that may in fact be attributed to the high level of pollution in both rural and urban parts of this region.

In addition to the factors presented by a hostile world, our own microclimate is also an important factor. The microclimate we expose our skin to in our homes, cars, offices and airplanes changes daily, resulting in varying levels of sensitivity. For instance, we may be inadvertently sensitizing our skin on a typical winter day, when we transfer from cold, dry winds outside to dry forced air heating inside.

Regardless of the classification of skin sensitivity versus sensitization, the common thread among these conditions is inflammation, and research at The International Dermal Institute reveals that many formulations are not addressing one key factor: Neurogenic inflammation.

Click here to read “Decoding Inflammation” and to learn more about successful treatment of the multiple pathways behind inflammation.

1 American Academy of Dermatology Fact Sheet http://www.aad.orf/media/press/_doc/SensitiveSkinFactSheet.html 2 Stander et al. (2009). Putative neuronal mechanisms of sensitive skin. Exp Derm, 18, 417-423. 2 Stander et al. (2009). Putative neuronal mechanisms of sensitive skin. Exp Derm, 18, 417-423. 3 O. de Lacharrière et al., “Sensitive Skin – A Neurological Perspective’’ Proceedings of IFSCC Conference, Osaka, 2006