

Beyond the Surface of Sensitized Skin

by Dr. Diana Howard

Sensitized skin reacts in an instant. Can you react just as fast when faced with this condition in the treatment room? IDI has the research and the ingredients to help you manage this condition for serious redness relief.

It's a hostile, toxic world where UV light, chemicals, allergens and pollution pose a daily threat to healthy skin. But it's not just the elements: emotional stress and hormonal changes can also result in sensitized and inflamed skin.

While immune system (immunogenic) inflammation is a recognized precursor to sensitized skin, the nervous system can also trigger sensitization and inflammation. This is known as neurogenic inflammation.

The Inflammatory Response: Immunogenic Inflammation

The body's immune system helps protect it from disease, and the inflammatory response is a natural process that serves to remove the injurious stimuli as well as initiate the healing process.

Inflammation is characterized as a cascade of biological events involving the local vascular system (blood vessels), the immune system and various cells within the injured tissue.

Traditionally, the immune system involved in inflammation requires prior sensitization and is triggered by a foreign substance, such as pollen, microorganisms or artificial fragrances. This is termed immunogenic inflammation.

Immunogenic inflammation involves the activation of white blood cells, the primary agents for fighting off intruders. They normally reside in the blood and must travel to the inflamed tissue. There, they attack and destroy invaders such as bacteria, viruses, and cellular debris. This process results in the pain, redness, swelling, and heat associated with inflammation.

The Inflammatory Response: Neurogenic Inflammation

Scientific data has proposed another system that also triggers the inflammatory response.

Whereas immunogenic inflammation is triggered by the immune system, neurogenic inflammation is triggered by the nervous system.

When an irritant chemical activates nerve sensors, it results in the release of substances that also trigger the inflammatory cascade. Under normal conditions, these substances play a role in tissue repair; however, they are also found in a variety of painful inflammatory conditions such as urticaria (itching), psoriasis, atopic dermatitis, hypersensitivity, rosacea, and wound healing. Interestingly, not all of these substances promote inflammation; some of them may in fact end the inflammatory process.

In addition to allergens that may stimulate an immune response or chemicals that stimulate a nerve response, emotional and physical stress can also induce skin itchiness, inhibit wound healing and aggravate inflammation. Work, deadlines, toxin accumulation and the environment can all be stressors. The elevated levels of stress hormones cause inflammatory reactions in the body, which can lead to many forms of skin and overall health concerns.

Both immunogenic and neurogenic inflammation can yield the same redness, itching and swelling that result when the body is injured or irritated. In the end, it is the combination of genetic susceptibility, immune disruption, nerve activity and epidermal barrier function that contributes to skin sensitivity and inflammation.

Pairing effective treatment with lifestyle choices are crucial to promoting a healthy skin condition. Minimizing sun exposure, reducing stress levels, taking care to preserve our skin's natural protective barrier, along with a healthy diet will undoubtedly have a positive effect on the health and appearance of the skin.