



SENSITIZED SKIN
CE Activity provided by PCI Journal

COA#PCIA0716

INSTRUCTIONS

1. Read the article.
2. Take the test, record your answers in the test answer section (Section B) on CE Registration Form.
3. Complete the CE Registration information (Section A) and Course Evaluation (Section C).
4. Mail completed CE Registration Form and fee to: PCI Journal, 484 Spring Avenue, Ridgewood, NJ 07450-4624.

PROVIDER ACCREDITATION

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GENERAL PURPOSE STATEMENT

To provide the skin care professional with a review of Sensitive and Sensitized Skin Conditions.

LEARNING OBJECTIVES

After reading this article and taking this test, the skin care professional will be able to:

1. Understand the cause of sensitized skin and how to lessen the chance of skin reactions.
2. Understand the sensitive skin product claims, and facial treatment options.

About Sensitized Skin

The term allergic reaction is sometimes misused to describe the symptom of a sensitive skin condition. An allergic reaction and sensitive skin are not one in the same, however, they can have overlapping physical and visual results.

Background

According to Mintel's Global New Products Database (GNPD), thus far in 2014*, sensitive skin claims represent 25% of total skincare claims, compared to 15% in 2009. What's more, 71% of facial skin care users say they are interested in ultra-gentle products.

This review will focus specifically on sensitive skin or over sensitized skin, not rosacea specific dermatological conditions or diseases, although they are common diagnosis to sensitive skin conditions.

Understanding Sensitive Skin Product Claims

Skin care formulas that are typically not problematic for the general population can cause intense stinging, burning, and redness in individuals with sensitive skin.

When the claim "suitable for sensitive skin" is on the product's label, the formula itself is tested, not the individual ingredients within the formula. There should be clinical support from the manufacturer that the formula was specifically tested on individuals that claim they have sensitive skin.

"Known to" claims mean that a formula can contain an ingredient "known to" soothe sensitive skin. This does not mean that the formula itself soothes sensitive skin. Some products are labeled hypoallergenic, a marketing term recognizable to the consumer, but again, there really is not an industry standard to measure the claim hypoallergenic. Generally, the manufacturer has taken measures to remove known allergens from the formula, yet irritants may still be present.

How Healthy Skin Becomes Sensitized

Skin contact with a formula or surface known as the irritant can create skin sensitivities or contact irritant dermatitis. This contact is not the same as contact that causes an overactive immune response with the release of antibodies (histamines), as an allergic reaction does. What happens is that the stratum corneum has been damaged, creating a condition for the epidermal barrier to be affected. When treating sensitive skin, keep in mind that skin becomes sensitive through physical and emotional causes. Sensitive skin, with sensitized being a better descriptor, is not necessarily a skin type, but a symptom of a skin's condition. Sensitive skin has become a common term to describe the condition rather than a medical diagnosis. When referred to in skin care it describes reduced tolerance to the application of

cosmetics and personal care products. Dry, mature, combination, oily, and acne skin types can have symptoms of sensitivities.

Sensitive Skin Stimulants

Lifestyle - Busy schedules, physical/emotional stress, poor diet, over-indulgence in alcohol or drug, extreme perspiration with exercise, and certain medications.

Climate - Heat, humidity, sun exposure, cold, forced air, pollution.

Aggressive Contact - Excessive friction, brushing, rubbing, scrubbing, scratching, chemical peeling, overuse of cosmetic products.

Improper Hygiene - Improper facial cleansing, or not cleansing skin at all before bed leaving irritants.

Improper Cosmetic Product Use - Layering multiple skin care products, practicing multiple cleansing steps, continually switching skin care products or applying too many products on a daily basis.

Cosmetic Ingredients - Some substances or ingredients that do not bother other people can affect sensitive skin, such as sodium laurel sulfate, fragrance, parabens, and even some natural or organic ingredients.

Hormonal Fluctuations - Female monthly changes

Age - Skin maturation, which slows physiological

protective and repair functions. **Physical sensations resulting in sensitized skin include the following:**

redness, erythema, inflammation, itching, stinging, burning or extreme dryness; however, there are cases where an individual can suffer from the physical burning or stinging, but there may not be a visual counterpart of these manifestations.

Sensitive skin can be clinically compartmentalized in two ways:

1. Subjective/sensory irritation, also known as sensorineural irritation - This is characterized by sensory discomfort, such as itching, stinging, tingling or burning, but in the absence of any clinical or histological evidence of inflammation. Involvement of nerves and blood vessels contribute to the development of the symptoms. It is generally of acute onset.

(dermnetnz.org/reactions/sensitive-skin.html#ed)

2. Non-erythematous irritation, also called suberythematous irritation - This form of irritant contact dermatitis differs from subjective irritation in that, although the person experiences similar symptoms and no rash is visible, there are changes of inflammation seen on skin biopsy. It often develops slowly and discomfort is experienced with multiple chemicals.

(dermnetnz.org/reactions/sensitive-skin.html#ed)

Stratum Corneum

The process that causes skin to be sensitive or more sensitized is the weakening of the stratum corneum which provides a protective barrier to help defend against environmental/physical aggression. This weakened layer allows external aggressors to penetrate more easily and cause a reaction.

Epidermal Barrier

Impairment of the epidermal barrier, the outermost compartment of the skin, is the breakdown of skin's ability to defend and repair itself. Transepidermal water loss, UV exposure, free radicals, high pH products all contribute to the breakdown of the skin's barrier.

This barrier can be divided into three lines of defense: the physical barrier against pathogens and mechanical injuries, the chemical/biochemical barrier with antimicrobial activity, and a barrier against the unregulated loss of water and solutes. Int. J. Mol. Sci. 2013, 14 6722 [Cytokines and the Skin's Barrier](#)

Treating Sensitized Skin

The first order of action for a client experiencing sensitized skin is for the client to receive a dermatological assessment. The reason for this is that sensitive skin can also have underlying skin reaction patterns that may require topical medications to address the inflammation, itchiness, and redness and to help rebuild the skin's barrier.

Precautions During Facial Treatments

- Use mild cleansers with clean hands to cleanse the face; no cloths, no brushes, no scrubbing.
- Use fragrance free products.
- Avoid cleansers with sodium lauryl sulfate.
- Avoid foaming cleansers, look for non-foaming or milky cleansers.
- Avoid over stripping the skin mantle, for example, use one cleanser, do not cleanse, then deep cleanse, then exfoliate. This may over exacerbate the skin, adding to skin sensitivities and barrier breakdown.
- Avoid aggressive granular exfoliants. Look for gentle exfoliants that are lightly rubbed off of skin or ingredients, other than acids, that exfoliate.
- Avoid excessive hot facial steaming.
- Avoid over manipulation with massage, this may bring up more redness in the skin.
- Review the formula ingredient list. Take into account that one ingredient may not be the culprit. The formula itself needs to be tested on the client's skin. Sample the product to the client before purchase and instruct the client to use the product on one small area on the face multiple days to ensure that the skin can tolerate the new product.

Strengthening The Epidermal Barrier

A strong barrier makes skin less permeable. There are no leaky 'holes' or cracks. The aim in management of sensitive skin is to restore the barrier function through the application of ceramides and nutritive lipids to improve the lipid content that holds the skin cells tightly together.

The most effective lipids are the ones that are most similar to skin's natural lipid composition. They are ceramides (sphingolipids), cholesterol, and fatty acids.

The lipids in skin are found in:

- The Stratum Corneum layer of the epidermis. They are located in the stacked lipid bilayers. Lipids form around the corneocytes (dead skin cells) and act like the glue that holds the corneocytes together and trap water in the skin.
- The Granular layer of the epidermis located in the intercellular matrix. Lipids here exist in the form of free fatty acids, cholesterol, and sphingolipids as they are released from lamellar bodies in the keratinocytes that are in the process of breaking down into corneocytes.
- Cell membranes.
- Sebum, with the oil produced by the sebaceous glands attached to follicles.

Patients and clients with sensitive skin still require cleansing hygiene. Synthetic detergent cleansers, also known as syndets, provide the best skin cleansing while minimizing barrier damage. These products may contain water, glycerin, cetyl alcohol, stearyl alcohol, sodium laurel sulfate, and occasionally propylene glycol. They leave behind a thin moisturizing film and can be used effectively in persons with excessively dry, sensitive, or dermatitic skin.

Moisturizers should create an optimal environment for barrier repair, while not inducing any type of skin reaction. The best moisturizers are simple emulsions for sensitive skin with fewer ingredients.

Resources

- http://www.medscape.org/viewarticle/839478_4
- <http://www.justaboutskin.com/skin-barrier-function/>
- <http://www.skininc.com/skinscience/physiology/Making-Sense-of-Skin-Sensitivity-311022341.html>
- <http://www.synergieskin.com/skin-irritation-and-skin-allergy/>
- <http://www.oapublishinglondon.com/article/615>
- <http://www.zoedraeos.com/articles/skin-care/#main>
- <http://www.dermnetnz.org/reactions/sensitive-skin.html>
- <https://rosacea-support.org/syndets-and-lipid-free-cleansers-what-are-they-do-they-work.html>
- Patch tests -
- <http://www.dermnetnz.org/dermatitis/standard-patch.html>

SENSITIZED SKIN

- 1.) The product claim suitable for sensitive skin means:
 - a) the ingredients prevent allergic reactions
 - b) the formula is good for all skin types
 - c) the formula was tested on sensitive skin
 - d) the ingredients are hypoallergenic
- 2.) The term sensitive skin can be confused with:
 - a) allergic reactions
 - b) hypoallergenic skin
 - c) only sensitive skin types
 - d) all of the above
- 3.) A hypoallergenic product claim means:
 - a) the product does not cause allergies
 - b) the manufacturer has taken measures to remove known allergens
 - c) the product was developed for sensitive skin
 - d) none of the above
- 4.) Non-erythematous irritation means:
 - a) skin looks red
 - b) no skin rash is visible
 - c) skin looks irritated
 - d) skin does not feel or look irritated
- 5.) Which of the following can create skin sensitivities:
 - a) contact with a formula
 - b) contact with a surface irritant
 - c) lifestyle habits
 - d) all of the above
- 6.) Damage to the following contributes to sensitized skin conditions:
 - a) epidermis
 - b) granular layer
 - c) basal cell layer
 - d) stratum corneum
- 7.) Which of the following is not a contributing factor to sensitized skin:
 - a) physical causes
 - b) emotional causes
 - c) a healthy stratum corenum
 - d) natural ingredients
- 8.) Sensitive skin is:
 - a) a specific skin type
 - b) an allergic skin type
 - c) a skin condition or symptom
 - d) a hypoallergenic skin type
- 9.) Which of the following skin types can have sensitive skin symptoms:
 - a) dry/mature
 - b) combination
 - c) oily/acne
 - d) all of the above
- 10.) Sensitive skin stimulants can be bought on through:
 - a) lifestyle habits
 - b) aggressive treatment of the skin
 - c) multiple use of skincare products
 - d) all of the above
- 11.) A skin can be physically sensitive:
 - a) and not show visible irritation
 - b) and still tolerate hot facial steam
 - c) and have a healthy epidermal barrier
 - d) none of the above
- 12.) The best way to determine skin's underlying reaction patterning is:
 - a) a dermatological assessment
 - b) using different products
 - c) see how fast a skin turns red with massage
 - d) determine skin's reactive time
- 13.) It is best to cleanse sensitive skin:
 - a) gently, with a high foaming cleanser
 - b) lightly, using a granular exfoliant
 - c) delicately, using a surface cleanser, then a deep cleanser
 - d) gently, with a mild cleanser
- 14.) Cleansers that minimize barrier damage are:
 - a) all natural
 - b) organic
 - c) synthetic detergent cleansers
 - d) none of the above
- 15) Ceramides and nutritive lipids:
 - a) help restore the barrier function
 - b) help trap water in the skin
 - c) improve the lipid content that holds the skin cells tightly together
 - d) all of the above
- 16.) Lipids in the skin are found in:
 - a) the stratum corneum
 - b) the granular layer of the epidermis
 - c) skin cells and sebaceous glands
 - d) all of the above
- 17.) The symptoms or signs of sensitive skin will depend on:
 - a) one or two ingredients in a formula
 - b) a weakened epidermal barrier
 - c) the client's moisturizer
 - d) the client's history of allergic reactions
- 18.) The best moisturizers for sensitive skin conditions:
 - a) contain natural and organic ingredients
 - b) contain many ingredients to calm and soothe skin
 - c) will calm any skin reaction
 - d) none of the above

CE REGISTRATION FORM

Section A

Sensitive Skin

COA# PCIA0716

PRINT CLEARLY (*Illegible forms will not be processed*)

Name: _____

Address: _____

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Email: _____ *Delivery Method used to send CE Certificate

Are you certified? ___Yes ___No

NCEA Certification# _____

Other Certification _____

Type of License:

Esthetician ___ Cosmetologist ___ Medical Professional ___ Other ___

License # _____ State of Issue _____

Section B

Test Answers: Darken one for your answer to each question

	A	B	C	D		A	B	C	D
1.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	10.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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4.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	13.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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8.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	17.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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Section C

Course Evaluation:

1. Did this CE activity's learning objective relate to its general purpose? ___Yes ___No

2. Was the learning format an effective way to present this material? ___Yes ___No

3. Was the content relevant to your skin care practice? ___Yes ___No

4. How long in minutes did it take you to read the article _____, study the material _____, and take the test _____?

5. Suggestions for future topics _____

Section D

Payments and Discounts:

The registration fee for this test is \$24.95. (Check or money order payable to PCI Journal to 484 Spring Avenue, Ridgewood, NJ 07450-4624.)

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