

Topicals to Manage Dry Skin in the Winter

Beating the Winter Itch



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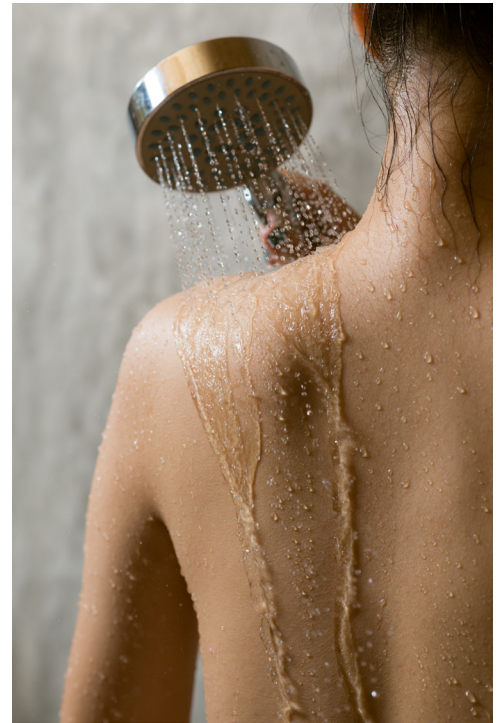
Gingerbread, candy canes, festive holidays... snow shovelling, shivering at the bus stop, and dealing with a dead car battery. People tend to fall into two camps, they are either itching for winter, or are frustratingly itching because of winter! No matter which side you prefer, your skin will feel the effects of winter either way. The aptly named “Winter Itch” refers to the experience of dry skin, medically known as xerosis, during the winter months. The prevalence during the winter is owing to

the relatively low humidity, combined with dry indoor heat, which occurs during this time. The greatest frequency occurs within the elderly population, as the winter weather change is the most common cause of dry skin in this group.^[1] Although dry, scaly, and itchy skin can occur anywhere, the shins of the lower leg are commonly affected, owing to their naturally lower density of sebum-producing sebaceous glands. For the purposes of our discussion, we will focus on simple dryness of skin during the winter months; however, dry skin can also be caused by various dermatological/medical concerns such as diabetes, hypothyroidism, and atopic eczema, as well as be triggered by certain medications such as diuretics.^[2] As always, the information reviewed can be discussed with your local (skin) health-care provider to confirm its appropriateness in your case.

Lifestyle Factors

Before jumping into the topical moisturizing ingredients to consider, let's first look at some of the key lifestyle factors which can mitigate the development of dry skin. My previous articles have described in detail the role of the skin barrier in maintaining skin moisturization. The three “physiologic lipids” essential for maintaining this barrier include ceramides, cholesterol, and fatty acids. Keep these in mind for our discussion below

regarding topical moisturizers. When our skin barrier is less effective, water content in the upper layers of skin can more easily evaporate into the atmosphere, leaving our skin dry. In addition to the exposure to low-humidity and high-indoor-heat conditions during winter, there are certain lifestyle factors which you may be doing that can strip away these lipids from your skin barrier. This can put your skin at risk to more easily dry out. One of the most common factors is exposure to hot water. Whether it's a shower or a bath or washing our hands and face, as nice as hot water can feel, it can contribute to interfering with our skin barrier. Try using water temperature which is closer to tepid or warm, rather than hot, as best possible. For some, the duration of water exposure can also be a factor. If you're used to taking the proverbial "long, hot shower," try experimenting with a shorter duration in warm water. Another common factor is cleaning our skin with traditional soaps. This is becoming less of a concern, as more and more "moisturizing" bar and liquid cleansers for the hand, body, and face are now on the market. Many of these products fall under the category of synthetic detergents, aka syndets, and lipid-free cleansers, which will help to efficiently remove dirt and excess oil from the skin, but are rich in moisturizers which are left behind to help maintain and protect our skin barrier. For a more detailed review of traditional soap as compared to syndets, please see my previous article on cosmeceuticals in the management of acne. Other lifestyle factors found to affect our skin barrier include UV-light exposure, stress, and inadequate consumption of essential fatty acid-containing foods and oils, such as those derived from soy, corn, wheat germ, hemp seeds, and sunflower seeds.^{[3][4]}



Moisturizing Topicals to Consider

What's in My Moisturizer?

Most effective moisturizers tend to contain a blend of moisturizing ingredients which fall under three main categories: occlusive, humectant, and emollient. Occlusive moisturizers act to form a barrier overtop the skin, helping to trap and prevent water evaporation from the skin's surface; humectants work to draw moisture from the deeper skin up toward the surface layers; and emollients, which provide a fast-acting smoothness to the skin, work by interspersing between the uppermost skin cells which are in the process of shedding. Let's review some popular examples, and key points, of each common moisturizer type.^[5]

Occlusive

Petrolatum efficiently reduces water loss from skin. It is effective for dry skin, but can be greasy in feel.

Mineral oil, although less effective at preventing water loss from skin compared to petrolatum, has the benefit of being less greasy, and less likely to trigger acne.



Humectant

Glycerin (glycerol), an extremely popular and commonly used humectant, can efficiently hydrate the upper layer of skin. It is considered an “active” moisturizer, given its ability to improve the processes by which the skin can maintain hydration, even after regular use is discontinued. If used on its own, glycerin can leave a sticky sensation on the skin in humid conditions; this stickiness can be mitigated if combined with other humectant ingredients like hyaluronic acid.

Panthenol / provitamin B₅ is an effective vitamin-based humectant. It is also used to soothe irritated skin as well as to reduce the irritative effects and properties of other ingredients in a cosmetic formula (such as vitamin A derivatives).

Emollient

Dimethicone and **cyclomethicone** can act as both occlusive and emollient moisturizers. They can provide a fast-acting relief due to emollient effects described above, and reduce water loss from skin without any greasy feel. They are known to be an effective moisturizing type for people managing acne and in those with sensitive skin.

Cetyl stearate also helps soothe shedding skin cells. It is nongreasy as well.

Skin Barrier Support—The New Wave of Moisturization

Although the above ingredients can support skin hydration, research is now showing that products which help “restock” our skin’s lipid barrier can be an efficient method by which we can re-establish our skin’s own ability to lock moisture in, and may help manage various skin diseases such as atopic eczema. It has also been theorized by researchers that overdependence on occlusive moisturizers may interfere with the skin’s own ability to optimally replenish the lipids needed to maintain and repair the skin barrier.^[4] Here are some key points to note regarding skin barrier-supportive ingredients.

Ceramides are now being incorporated into various moisturizing products, with certain brands featuring them as the central ingredients in their formulas. They are used in general moisturizing products, along with those formulated for skin aging, skin concerns (such as psoriasis, eczema, and eye puffiness), and even as part of cleansing products. One small 12-week study found that daily use of a moisturizer containing a ceramide-like ingredient over the winter months significantly reduced the experience and severity of winter dry-skin symptoms such as itching, redness, and dryness. It also was found to improve the hydration and barrier-protection properties of the skin, particularly over the hands and legs.^[6]

Cholesterol is typically found alongside—and in balanced ratios with—ceramides and fatty acids in ceramide-containing products.^[5]

Fatty acids can be derived from a variety of sources and appear on labels as palmitic, stearic, caprylic, lauric, or myristic acids. Linoleic acid, an essential omega-6 fat, also contributes to this fatty acid “pool.” Labels may not always list the above fats per se, but instead list the sources that they can come from. Examples of these include argan oil, avocado oil, coconut oil or milk, cocoa butter, soy, safflower oil, hemp oil, and goat milk.^{[4][7]}

Urea contributes to skin-barrier moisturization via it being a component of the natural moisturizing factor, which represents a group of amino acids and salts which help maintain hydration of the upper layer of skin.^[8] Like ceramides, some brands feature urea as the key ingredient in their formulas.

Promoters of ceramide / fatty acid production. You may begin to notice certain ingredients in moisturizers for which various levels of evidence have shown their ability to help stimulate the skin’s own production of ceramides and/or fatty acids. Some of the notable cosmeceutical ingredients in this regard include niacinamide (a form of vitamin B₃), *alpha*-lipoic acid, vitamin C, and lactic acid.^[4]

How and When to Apply?

Moisturizers are believed to bind to the skin best when they are applied soon after a bath or shower. The skin should be patted dry, as opposed to vigorous rubbing with a towel, whose friction may also contribute to loss of skin-barrier lipids.^[9] Multiple application per day may be necessary in certain cases.^[2]



Where Your Skin Specialist Comes in...

Although many manufacturers will be helpful in providing guidance regarding whether their moisturizing product can be used on those with dry, normal, or oily skin, it can still be helpful to discuss this matter with your local skin specialist. Moisturizers tend to be formulated into lotions (an oil-in-water emulsion, containing a higher amount of water relative to oil) or creams (water-in-oil emulsions, higher in oil relative to water). From here, manufacturers can adjust the oil:water ratio as well as the “heaviness” of occlusive/emollient moisturizing ingredients used. For example, in an “oil-free” facial moisturizer marketed toward those managing oily and acne-prone skin, dimethicone and cyclomethicone may be used owing to their properties of being nongreasy and non-acne-forming. Talc or kaolin may also be added to the formula given their oil-/sebum-absorbing properties and to help reduce the appearance of facial “shine.”^[10] By contrast, dry skin may benefit more from formulas with a higher oil-to-water ratio (such as creams), and “heavier” moisturizers like petrolatum or mineral oil.^[3] As discussed earlier, although the occlusive moisturizers can be helpful to temporarily manage periods of severe dry skin, products containing the skin-barrier supportive ingredients are likely necessary on a more regular basis to help encourage the optimal repair and reinforcement of one’s own skin barrier.



Disclaimer: *The information presented in this article is for general information purposes only and does not constitute medical advice. Please first review with your personal health-care provider(s) what therapeutic approaches and products would be best for your case.*

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