



THE FAMILY PHARMACIST

A QUICK READ FOR YOUR OTC NEED!

VOLUME 2, ISSUE 1

JANUARY 15, 2021

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OVER-THE-COUNTER TREATMENT FOR DRY SKIN

This article is about treatment for dry skin caused by environmental conditions, particularly present during the winter months. In North America, most homes are heated by forced air which circulates throughout the home via air vents and ducts. This constant movement of *dehumidified* air across our skin surfaces causes dehydration. Adding to this is the fact that most of us live in areas where our bath and shower water is chlorinated. There is some evidence that chlorinated water reduces the water-holding capacity of skin, making it more prone to dehydration and disease in sensitive individuals.

The skin of the human body is amazingly complex. What is known as the *epidermis* is the part of our skin that is the primary defense between our body and the environment. The outermost layer of the epidermis is called the *stratum corneum*. If the stratum corneum is healthy, the cells are held together by natural fats and oils that form a protective barrier to hold moisture in and protect the underlying tissues. It is this outermost layer, the stratum corneum, that is most subject to dryness. Low humidity in surrounding air and insufficient hydration from the lower skin layers will make the skin rough, flaky, less flexible than normal, fissured, and more susceptible to injury and infection.

Cracking, flaking, or scaling of the skin can produce annoying and even painful symptoms. Numerous chronic conditions, like eczema, psoriasis, and type II diabetes, can cause painfully dry skin. In these disorders, the skin is unable to provide a protective barrier to prevent the loss of water. Situations like these require the attention of a physician. Another reason for skin dryness and irritation is the repeated use of personal protective equipment (PPE) that we've all had to use during the COVID-19 pandemic. Frequent hand washing or sanitizing and long-term glove use can also lead to skin moisture imbalance.

The treatment of dry skin caused by environmental factors is to replace the water and natural oils lost by the stratum corneum. Studies have shown that keeping the skin well-hydrated can help to prevent further aggravation of existing skin diseases, like those mentioned above. Whether you use a lotion, cream, or ointment, the

purpose of a skin moisturizer is to seal the skin and keep water from evaporating.

Lotions. Lotions spread easily and have a high water content so they tend not to feel oily. Consequently, lotions work well when used on larger body surface areas, like arms, legs, and torso. CeraVe® Daily Moisturizing Lotion, Eucerin® Intensive Repair Lotion, and Vaseline® Intensive Care Lotion are examples. These brands may also be found as creams or ointments.

Creams and Ointments. Both creams and ointments are semisolids, but there is a difference between a cream and an ointment. Creams are water-washable and tend to vanish into the skin. Ointments are oily or greasy and don't wash off easily. Ointments almost always use petrolatum (Vaseline) or mineral oil as a base. The cream vs ointment thing overlaps because both water and oil can be combined in a way to make a cream or an ointment. Both creams and ointments can contain beneficial fats, oils, and waxes to protect the skin. The FDA classifies skin moisturizers as cosmetics rather than drugs. So the label "cream" or "ointment" simply indicates how the product feels on the skin. However, both creams and ointments are effective in treating dry skin when used properly (see table at the end).

CeraVe® Moisturizing Cream and Eucerin® Original Healing Cream are excellent creams that moisturize without leaving a greasy feel. Vaseline® Jelly and Aquaphor® Healing Ointment are ointments that will feel oily on the skin for a little while after applying. If it's necessary to use a product during the day, a cream usually works better. A successful way to treat severely dry hands is by applying a cream or ointment at night, and then wear cotton gloves to further prevent water loss from the skin during the night. Dry feet, particularly calloused heels, are best treated with a cream containing a high percentage of *urea*, such as Flexitol® Heel Balm available in pharmacies. Urea breaks down the adhesion between dead surface cells and allows for sloughing of the old skin. This encourages new, healthy skin growth on your feet. For very dry feet use cotton socks after applying a cream or ointment during the day or overnight.

Ingredients. Many skin products on pharmacy and salon shelves claim to tone, lubricate, protect, and moisturize the surface of the skin. If you have ever read the ingredient label of an OTC lotion, cream, or ointment you know that the list of chemicals is daunting. Most of the ingredients fall into the category of emollients, moisturizers, or humectants.

Emollients. The word "emollient" is from a Latin word meaning 'to soften.' The term is a general category for chemicals added to lotions, creams, and ointments that relieve dryness by conserving the water content of the skin and by protecting the fat and oil layer of the stratum corneum. Emollients make the skin feel soft and smooth. Look for ingredients like *lanolin*, *glycerin*, and *propylene glycol* that are used as emollients.

Moisturizers. OTC skin products frequently use the term "moisturizer" or "moisturizing." Any ingredient that works by increasing the ability of the skin to hold water is a moisturizer. *Coconut oil*, *jojoba oil*, *argan oil*, *shea butter* (found in L'Occitane® Intensive Hand Balm), and *olive oil* are ingredients often used in skin care products as moisturizers. These plant based oils are important to keep skin supple.

Humectants. "Humectant" ingredients are claimed to absorb water from the air around the skin and from the deeper layers of skin in an effort to keep the skin moist, although this can backfire. If the air around you is not humidified, a humectant like *hyaluronic acid* or *sorbitol* can make your skin feel dryer than before. So avoid humectants in a very dry environment.

Importance of Healthy Skin. Recent research shows that healthy skin is determined by many factors: the environment, life style, diet, and our genes. Our skin is also host to as many as 1000 species of microorganisms (mostly beneficial), known as the skin *microbiota*. Keeping skin healthy, nourished, and protected may make us less sensitive to environmental changes and chemical contaminants that we come in contact with every day.

Caveat

The brand name products I mention in this article tend to be “hypoallergenic,” but that is no guarantee. Sensitive individuals (as high as 23% of women and 14% of men) can experience a skin reaction from ingredients found in any skin care product. This may range from simple irritation to a true allergic response. If you are sensitive, it’s wise to test a new product before you use it. WebMD suggests: “Do a patch test before using any product. Place a small amount on the inside of your elbow and wait 48 hours to 72 hours. If you have redness, swelling, itching, or burning, don't use that product.” The June 2020 issue of Pharmacist’s Letter recommends avoiding “unscented” products as these may use additives to mask smell that can cause irritation.

General Skin Care Recommendations
Apply lotions, creams, and ointments while the skin is still damp.
Apply dry skin products twice in a row. Rub in well the first time, then wait several minutes or so between applications to allow time for initial absorption.
Keep your skin clean by using only mild soaps, like Cetaphil® Ultra Gentle Body Wash and Dove® Sensitive Skin bar. Neutrogena® Ultra Gentle Daily Cleanser is formulated especially for use on the face.
For irritated hands, pat dry after washing instead of rubbing.
Use warm water instead of hot for bathing and hand washing.
Keep showers and baths short (five to ten minutes).
Since our skin is hydrated by water from tissues under the stratum corneum, drink plenty of water. Stay hydrated.
Install a humidifier in your home, or if you already have one, make sure it is working properly. If your home thermostat doesn’t display humidity buy a separate inexpensive hygrometer for that purpose. Relative humidity in the home should be 35-50% depending on the outside temperature.
Diet is important. Certain vitamins and supplements (B, C, E, and beta carotene) are claimed to be helpful in treating dry skin caused by sun damage and aging. But the best way to get essential antioxidants is by consuming a diet rich in fruits and vegetables.

References on file

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