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BMS: Health

Moisturizing a Must

Dealing with dry skin? Dr. Cyndi Yag-Howard explains the culprits and solutions.

Even though we live in a moist environment, dry skin is a common problem among people living in South Florida. The flakiness of dry skin is bothersome, and lusterless skin lusterless makes fine lines and wrinkles more obvious. Moreover, dry skin can cause itching, dermatitis and infection, especially as harsh environmental factors bombard the already weakened skin structure that is common to dry skin.

By staying moist, the skin maintains its flexibility and elasticity so that it can stand up to everyday trauma like bumps and cuts. A moist skin surface also allows beneficial nutrients and medications to enter the skin while preventing the entry of harmful bacteria and fungus. It essentially seals out the bad and keeps in the good.

To understand dry skin, it is helpful to know a little bit about how our skin works. The outermost surface layer of our skin, known as the stratum corneum layer, is arranged in a bricks-and-mortar structure. In healthy skin, the bricks of the stratum corneum are dead skin cells that originated in the lower layers of the skin. As these cells die and break down, they become flat bricks of protein that contain natural moisturizing factor (NMF). NMF acts like a sponge to pull water into the skin, keeping it moist. The protein bricks also provide the skin with strength and a certain degree of protection from the damaging effects of sunlight's ultraviolet radiation.

Skin's "bricks" are held together by "mortar" consisting of cholesterol, fatty acids and ceramides, all of which are lipids, or fats. These lipids surround the bricks to lock in the moisture and prevent water loss from the surface of the skin. They also provide an antimicrobial barrier to help prevent infection by the bacteria and fungi that exist in the environment. Therefore, both the protein bricks and the fatty mortar of the stratum corneum must function properly for skin to stay moist, healthy and beautiful.

People with healthy skin shed thousands of dead skin cells daily; we just don't notice the shedding because the tiny, microscopic cells shed individually, making them virtually imperceptible to the human eye. In dry skin, however, the corneocytes don't separate from each other like they should, and instead clump together, producing large flakes of skin that are plainly visible.

Skin can become dry for several reasons. First, as we mature, our body's ability to produce the proper lipids necessary for holding on to water in the skin's surface decreases slightly. Other factors that cause dry skin include sun exposure, which interferes with the skin's ability to form NMF; soaps that dissolve the skin's lipids and wash away the NMF; wind that blows water off the skin's surface; and low

temperature and humidity, both of which prevent the skin from being able to pull in water from the environment. Many people are predisposed to dry, damaged skin by medical conditions like atopic dermatitis, xerosis, ichthyosis and other less common genetic disorders.

So how can you increase the amount of water in the stratum corneum to battle dry skin? There are two ways: pulling more water into the skin's surface or sealing in the water that is already present so that it cannot escape or evaporate from the surface of the skin. Skin care products that pull water into the stratum corneum contain ingredients called humectants. These products replace the skin's NMF, which naturally depletes over time. Common humectants found in moisturizers include lactic acid, propylene glycol and urea.

On the other hand, skin care products that seal in the skin's water are called emollients and occlusives. Emollients, such as lanolin, are fatty substances used to enhance the mortar between the protein bricks of the stratum corneum. Meanwhile, occlusives, such as mineral oil, dimethicone and petrolatum, are slippery and oily, leaving a film on the skin's surface to prevent water loss.

Recent advancements in the understanding of skin moisturization place an emphasis on the skin's lipid ratios and acid (pH) levels, which are optimized in order to imitate healthy skin. These prescription and non-prescription advanced moisturizers, known as barrier repair creams and lotions, as well as soap-free barrier repair cleansers, help to preserve the skin's natural brick and mortar structure.

There are many very effective ingredients found in today's most beneficial moisturizers. Hyaluronic acid, which is the major ingredient in fillers such as Restylane®, Perlane® and Juvederm®, acts like a sponge to pull in water from the environment.

In need of exfoliation? Try a product with salicylic acid or retinol. Redness? Look for a moisturizer with niacin. Ascorbic acid (vitamin C), tocopheryl acetate (vitamin E), ferrulic acid and ubiquinone are antioxidants that provide protection from potentially damaging ultraviolet radiation and pollution. Additionally, vitamin C encourages collagen formation, while Ethocyn® increases skin elasticity by stimulating increased formation of elastin fibers.

Ask your dermatologist to help you understand which moisturizing options are best suited for your particular skin's level of dryness and do your best to incorporate them into your regular routine.

Dr. Cyndi Yag-Howard is a board-certified dermatologist who is a nationally recognized speaker, author and leader in organized medicine.

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