

S.O.S.

(Save Our Skin)

It might be the biggest secret of good skin—and most women have no idea. Here's how to look younger, fresher, better.

By Hannah Morrill and Judith Newman

When we think about our skin (and God knows we do), we think hopefully of descriptors like “radiant,” “glowing,” and “luminous.” We generally don't think of a beefy bouncer at a nightclub. But in fact, that's what it is. Skin acts as a defense against the skanks and losers—er, bacteria and viruses; it keeps the undesirables out and the good guys in. Foreign chemicals, irritants? You're not on the list. Water? C'mon in.

Or at least that's what skin is supposed to do. When this system breaks down, it's not only our looks that suffer; it's actually our health, too. That's why there is suddenly an explosion of interest in what dermatologists call “skin-barrier function”—the capability of the skin to perform its gatekeeping services effectively. There's increasing evidence, too, that a healthy barrier is essential for aging well.

It's not just people with skin conditions like psoriasis and eczema who have to deal with a screwed-up skin barrier. Normal skin is subject to barrier disruption all the time: dryness in the winter. Sun and irritation from pool chemicals in the summer. When the barrier is damaged, we become more susceptible to a whole host of problems. More bacteria get in. Chronic inflammation can ensue. That can lead to impaired antioxidant defense and higher levels of free radicals, which can result in premature aging. And overall, when the skin is in a weakened state, many products will irritate it, precluding the use of some more powerful ingredients. Moreover, the simple fact of getting older makes the skin barrier slower at recovering from assault, says Peter M. Elias, a professor of dermatology at the University of California, San Francisco and the author of *Skin Barrier* (Taylor & Francis). Add to that a lifetime of sun



damage, if you're a tanner or a burner, and you've really got yourself a Situation.

Here's the unfortunate thing about damaging the skin barrier: We often do it ourselves. Many of us have skin-care rituals that tend toward the overzealous. If our skin routines were newscasters, they'd be less Brian Williams and more Glenn Beck. Changing routines (and perhaps some products) may not return you to the skin of your youth, but it could help make your skin worthy of glowing adjectives. Just watch out for these five common ways of preventing the skin barrier from doing its job.

Cleaning Frenzy

Ah, loofahs. Haven't we all enjoyed that smooth-as-a-dolphin feel after a grainy exfoliant and a nice coarse washcloth? Well, a little of this treatment goes a long way. Exfoliating dead skin cells can help unclog pores and brighten the skin, but this doesn't mean daily abrasive scrubbing, says Ranella Hirsch, an assistant clinical professor of dermatology at Boston University School of Medicine. The outermost layers of skin (or stratum corneum, for you Latin scholars)—essentially a tight but permeable grid of proteins and lipids—are important for proper skin-barrier function. When done correctly, exfoliating removes dead cells from the stratum corneum, but too much “can disrupt the connections between skin cells, impair skin-barrier function, and lead to inflammation,” says Joshua Zeichner, the director of cosmetic and clinical research in the dermatology department of Mount Sinai Hospital in New York City. “You can overexfoliate by scrubbing or even shaving



CeraVe Hydrating Cleanser

Formulated to avoid soap-related irritation, it also has a lineup of hydrating all-stars—hyaluronic acid, glycerin, ceramides, and cholesterol—designed to remain active on the skin even after the product is removed.

too hard, which causes razor burn,” he says. Remove makeup gently, with cotton balls or soft pads. And if you like face brushes, “go with the ultrasonic brushes that use sound-wave technology to loosen dirt,” like the ones by Clarisonic, says Ava Shamban, an assistant clinical professor of dermatology at UCLA and the author of *Heal Your Skin* (Wiley).

If your skin looks dull, you can slough off dead cells with a glycolic acid cleanser as needed—but no more than once a week, Hirsch says. You don't need to slather on these creams like you're competing on *Cupcake Wars*; a dime-size dollop will do.

For daily cleaning, most people should avoid anything that leaves a tight sensation afterward, Hirsch says. Instead, look for mild, soap-free products. Good ones to try are Cetaphil Gentle Skin Cleanser and Neutrogena Extra Gentle Cleanser, both of which are pH balanced, one of those reassuringly familiar terms nobody really understands. (It means the product mimics the acidity of the skin, thereby not disrupting it.)

Undermoisturizing

Fat is your friend. No, really. We may not love fat, but our skin does. Fats, or lipids, in the outer layer of the skin—ceramides, fatty acids, and cholesterol—help protect the skin cells. Think of the skin cells as bricks and the fats as mortar, explains Zeichner. They also help retain moisture in the skin, making it plump.

Yet what makes a good moisturizer is more com-

plicated than just throwing in random fatty molecules. In fact, creams that combine mineral oil and paraffin can actually damage the skin barrier and increase water loss, Shamban says. Moisturizing ingredients tend to have a synergistic effect, and several ingredients together are required to optimize barrier recovery, according to a recent study by Marie Lodén, a pharmacist at the Eviderm Institute in Sweden, published in *Clinics of Dermatology*. (It's sort of like the YouTube-documented effect of Diet Coke and Mentos. On their own they don't do much, but put them together and *wheeee!*) Moisturizers that contain



Olay Total Effects 7 in One Anti-Aging Fragrance-Free Moisturizer

“You have to calm inflammation before the skin can repair itself,” Zeichner says. Vitamin B₃ not only soothes the skin, “it has anti-aging benefits as well—it can promote healthy collagen formation.”

humectants (compounds that attract and retain water) with small enough molecules to penetrate the skin easily, such as lactic acid, are often superior in treating dry skin compared with those that don't, Lodén says.

And here's some news that your grandmother could have taught you: Some of the cheapest moisturizing ingredients—petrolatum (Vaseline) and the humectants urea and glycerin—are very effective at helping the skin retain water. Surprisingly, though, Lodén found they actually repaired compromised cells in the stratum corneum, making them even more beneficial than scientists had thought. “We used to think those ingredients simply drew moisture into the skin. Now we know they play a critical role in sending messages that affect and improve how well the skin works,” says Elias.

Moisturizer should be applied when the skin is still slightly damp from cleaning, before the water has evaporated, says Howard Sobel, a dermatologist and dermatologic surgeon at Lenox Hill Hospital in New



Curel Intensive Healing Cream

For skin that is dry and irritated, signaling a distressed skin barrier, this thick, rich cream offers extra protection. Mineral oil, glycerin, and petrolatum lock in moisture and soothe chapped areas as they heal.

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York City. For extremely dry skin, he suggests trying a wet wrap: "Place a thin, wet cotton cloth over the skin you've moisturized, then follow with a dry one." Leave on for 15 minutes to an hour, and do this no more than once a week. You will hear your skin make that sucking sound you make when taking the last slurp of milkshake. (OK, maybe you won't, but you'll think you do.)

And though anyone who is battling breakouts may be wary of using moisturizers, it would be a mistake to steer clear of them entirely. There is mounting evidence that acne-prone skin is deficient in ceramides, a family of lipid molecules, says Shamban. She adds, "Once the barrier of the skin has been repeatedly breached with pimples, there is a disruption in the skin's ability to retain water." Also, applying moisturizer before acne medication can be helpful: "Studies have shown that using a moisturizer in combination with a topical retinoid can reduce irritation from the retinoids themselves," Zeichner says. Acne patients with oily skin should use an oil-free moisturizer, but "if you have acne and dry skin, you can certainly use a traditional moisturizer that's not oil-free," he adds.

Product Overload

Consistent with the belief that it helps to throw money at any problem, many of us tend to buy a boatload of skin-care products and hope one of them works. Bad idea.

"Some women feel that more ingredients are better, when in fact some ingredients can cause excess irritation when combined," Zeichner says. Alcohol and fragrances from

multiple products also have the potential to hurt the skin barrier, Sobel says. For those experiencing irritation, Zeichner recommends limiting the number of products by opting for some all-in-one formulas—a daily moisturizer with SPF and antioxidants, for instance, rather than three separate lotions. "The ingredients are just as good, and you're not overdoing it with tons of extras," he says.

Dermatologists also commonly see patients who have overused at-home alpha hydroxy peels and destroyed the barrier of their skin. "They want to resurface the skin, but they end up overstripping it," Hirsch says. "And honestly, not everyone needs peels." Most women with dry skin should skip them entirely. If your skin is normal, limit usage to once every two weeks; women with oily skin can usually tolerate weekly applications.

In Hot Water

A long, hot bath or a steamy 20-minute shower leaves you pleasantly relaxed. But it also leaves your

skin parched. Hot water can strip some of the lipids from the skin—similar to the way it extracts grease from a frying pan, Elias notes—and this prevents the skin from holding in moisture and keeping out irritants. About 30 percent of the population, and still higher for Asian people, have an inherited tendency toward dry or sensitive skin, which means they have reduced



EpiCeram Skin Barrier Emulsion

Available by prescription, it uniquely mimics the optimal ratio of ceramides, cholesterol, and fatty acids in the skin. "Ceramides act like spackle to keep irritants out," says Zeichner, who recommends this for people with rosacea.

levels of lipids in the skin to begin with, Elias says. Daily hot showers can constitute a repeated onslaught, without sufficient time for the skin's repair process to help it recover effectively. Keep your showers to ten minutes or less to minimize moisture loss, and turn down the heat to lukewarm. If your skin is prune-y afterward, you've overdone it, Hirsch says.

Thin Skin

Every bride who's ever walked down the aisle with a fresh pimple as her "something new" knows that stress can affect the skin. In a study by Theodore Robles, an assistant professor of psychology at UCLA, participants who were exposed to a brief stressful experience—giving a speech or performing hard math problems in front of an unfriendly audience—exhibited slower skin repair than relatively unstressed participants did. (This was demonstrated by greater moisture loss from the skin after having pieces of tape ripped off of it.) Stress hormones send signals to the immune system and

the skin that can slow the skin barrier's natural self-repair, Robles explains. He's currently studying people with psoriasis to explore the skin barrier's response to mindfulness—focusing on the present, not the past or the future, as in the practice of meditation. "More research is still needed," he says, "but there's the implication that if you taught people stress management or treated their depression, the ability of the skin to heal itself would improve." ♦



Cetaphil Restoraderm Skin Restoring Moisturizer

By delivering compounds known as natural moisturizing factors, which are normally in the top layer of skin and are involved in barrier repair, this relieves itchy, dry patches and rashes, including eczema, says Zeichner (who is a consultant for Cetaphil).



Eucerin Professional Repair Lotion

Skin that's rough and flaky can benefit from urea—which is naturally present in healthy skin in higher amounts than in dry skin—and gluco-glycerol, a molecule that's "like a superhumectant. It gives longer and better hydration than glycerin itself," Zeichner explains.