

Age-proof your skin

HOW SUN, POLLUTION AND EXTREME WEATHER ADD YEARS

Plan on going outside today? Sunscreen used to be deemed sufficient skin protection, but no more. Learn about your new environmental enemies—and how to foil them

BY GENEVIEVE MONSMA



SURE, YOUR DNA plays a significant role in how you look as you get older. But the newest thinking is that up to 90 percent of visible aging (fine lines, brown spots, sagging) is the result of “extrinsic aging”—the damage done by environmental, nongenetic factors. And in a way, that’s good news: You can’t change your genes, but you *can* change your behavior. So we spoke with experts to create an easy, effective plan that allows you to protect your skin while still going about your busy life.

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The sun

You know that exposure to UVA/UVB rays leads to sagging, wrinkling and uneven tone. UV rays also, of course, cause skin cancer.

SHIELDING STRATEGY The biggest problem when it comes to sunscreen has always been getting people to put it on, says Elizabeth Tanzi, MD, a Washington, D.C., dermatologist who says she continues to hear complaints about smell, feel and irritation. However, formulas are about to get better. Last November, President Obama signed the Sunscreen Innovation Act (SIA), which demands that the U.S. Food and Drug Administration (FDA) rule by the end of 2015 on eight sunscreen ingredients that are available in Europe or Asia and have been await-

the new ingredients will make sunscreens more stable and water resistant, a plus since many of us don’t reapply every two hours, as we should. Finally, the SIA states that any new sunblock ingredient proposed to the FDA must be approved or rejected within 18 months—no more waiting in limbo for a decade. In the meantime, until the improved formulas are available, these broad-spectrum sunscreens get high marks for efficacy and ease of application: (1) **CLARINS** boosted the SPF of its best-selling *UV Plus* (\$42; [CLARINS.COM](#)) from 40 to 50. **AMARTE** *Ultra Veil SPF 50+* (\$45; [AMARTESKINCARE.COM](#)) is lightweight and won’t feel tacky on sticky days. (2) **MURAD** *Invisi-Blur Perfecting Shield SPF 30* (\$65; [MURAD.COM](#)) is a completely clear gel (so no chalky residue), and **LA ROCHE POSAY ANTHELIOS AOX** *Daily Antioxidant Serum with SPF 50* (\$42; [LAROCHE-POSAY.US](#)) is packed with antioxidants, believed to extend the stability of sunscreen ingredients.

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Pollution

It’s unlikely that anyone reading this thinks pollution is good for the skin. But according to a 2014 survey conducted by Olay/Procter & Gamble (P&G), only about half of U.S. women have ever considered pollution a potential threat to their complexion. By comparison, almost 100 percent of women in smog-filled China have.

moisture in and irritants out. An E deficiency means you run a higher risk of free-radical damage (and subsequent wrinkling and uneven tone); a lipid deficiency means the skin is dry and chronically inflamed, triggering a higher incidence of inflammatory disorders such as psoriasis, eczema and rosacea. And this isn’t just a theory: A recent study showed that people living in heavily polluted Mexico City had 90 percent less vitamin E in their skin than residents of Cuernavaca, a less polluted neighboring town, while a P&G study in China showed that people living in smog-filled urban areas like Beijing had significantly drier skin than those in the less polluted countryside.

SHIELDING STRATEGY Step one is “limiting your exposure as best you can,” says Giuseppe Valacchi, PhD, a leading researcher on the impact of ozone pollution on the skin and lungs and an associate professor of physiology at the University of Ferrara in Italy. But because staying inside all day is not an option, he also suggests, “Use a [topical] antioxidant to replace any lost to exposure.” Keeping your face very clean is also important, says Frauke Neuser, PhD, a principal scientist for Olay, since particulate matter can sit on the skin, causing inflammation and compromising the skin’s ability to keep moisture in and irritants out.

And it’s not just the pollution particles themselves that pose a risk. “There are a number of potentially harmful chemicals attached to the outside of the particulate matter,” says Neuser. “In one study we did, a single speck of urban dust was shown to have more than 200 kinds of chemicals attached to it.” For proper cleansing, “soap and water often won’t cut it,” says Tanzi, who recommends an oscillating brush such as Clarisonic to dig out stubborn particles. Other exfoliating products such as scrubs, chemical sloughers like glycolic acid and even just a clean washcloth will also help. The important thing is washing at day’s end, every single day. Try (3) **OLAY PROX** *Nightly Purifying Micro-Peel* (\$40; [DRUGSTORES](#)) or (4) **CLARISONIC** *Smart Profile Sonic Cleansing System* (\$265; [CLARISONIC.COM](#)). Some experts also advise applying a product in the morning that is silicone based (like a clear makeup primer) to act as a shield. “Think of it as a literal barrier,” says Neal Schultz, MD, a New York City dermatologist. “Your antioxidant serum is like police who arrest an intruder once he’s broken into your house. A silicone barrier is like



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—Neal Schultz, MD, New York City dermatologist

ing approval in the United States for nearly 12 years. The eight on deck will help product developers make new sunscreens that are both “more elegant and more affordable,” says Craig Kraffert, MD, a dermatologist in Redding, California, and president of Amarte skin care. He adds that some of

The Chinese women are ahead of us on this one. Repeated exposure to pollution, which includes ozone gases and something called particulate matter (think soot), has been shown to deplete vitamin E, a naturally occurring antioxidant in the skin, as well as lipids, which help with the skin’s barrier function, keeping



having a strong door and windows to repel intruders so they never get inside in the first place.” One to try: **GIORGIO ARMANI** *Fluid Master Primer* (\$57; GIORGIOARMANIBEAUTY.COM). Finally, because dehydration is often a by-product of pollution exposure, “you need to make sure you are using a good moisturizer,” says Neuser. Look for one with ceramides, suggests Fredric Brandt, MD, a dermatologist based in Miami and Manhattan. “Choosing formulas with ceramides will help with that lipid loss and improve barrier functioning,” he says. Try **SKINCEUTICALS** *Metacell Renewal B3* (\$110; SKINCEUTICALS.COM), a moisturizing

formula with niacinamide (vitamin B3), shown to boost barrier function, or **DR BRANDT** *Xtend Your Youth Face Cream* (\$59; DRBRANDTSKINCARE.COM), which is packed with antioxidants.

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Extreme weather

Last year was Earth’s warmest since 1880, when modern record keeping began, according to NASA and the National Oceanic and

Atmospheric Administration. Couple that with the fact that much of the Midwest and East Coast shivered through 2014’s infamous polar vortex (the winter ranked as one of the top 10 coldest for much of the Midwest and the 34th coldest for the U.S. at large), and you’ve got a recipe for accelerated aging, says Amy Wechsler, MD, a dermatologist and psychiatrist based in Manhattan. During intense heat or cold, your skin is directly affected by the extreme forces, whether they be wind, heat, dry air, cold or intense sun, says Wechsler. This can prematurely age the skin by compromising the barrier function (which keeps moisture in), leading to increased wrinkles or a dry and leathery skin tone, she explains. But it doesn’t end there: The stress of dealing with this annoying weather can also exacerbate existing skin issues by raising levels of the hormone cortisol, which has been shown to cause inflammation, trigger adult acne and speed up the aging process. Terrific. If you weren’t stressed before, you are now. Finally, studies have shown that repeated exposure to extreme heat can cause free-radical formation and inflammation, which breaks down collagen, leads to wrinkling and sagging and can cause chronic redness, says Brandt.

SHIELDING STRATEGY As a result of global warming, the planet won’t be cooling off any time soon, and unpredictable weather events will continue. So besides minimizing time outdoors in extreme weather, says Brandt, you should tweak your skin care so it acts as an antidote to the elements. In the heat, products that keep skin soothed and fight inflammation are key. Try (5) **VICHY** *Aqualia Thermal Night Spa* (\$28; VICHYUSA.COM) and (6) **PETER THOMAS ROTH** *Rose Stem Cell Bio-Repair Gel Mask* (\$45; PETERTHOMASROTH.COM). For extreme cases, Kraffert suggests Mirveso, a redness-erasing Rx treatment. In the cold, conversely, blood vessels may constrict and won’t deliver nutrients to skin cells, so you need to amp up your protective products, such as topical antioxidants and moisturizers with ceramides to boost barrier functioning. Try **PERRICONE** *Photo Plasma* (\$69; PERRICONEMD.COM), which contains antioxidants in a rich base, and **CERAVE** *Moisturizing Cream* (\$17; DRUGSTORES), which is chock-full of barrier-repairing ceramides. ☺