

OUR SKIN HAS A MEMORY—HERE'S WHAT THAT MEANS FOR YOUR COMPLEXION



GOOD LOOKS

by ARDEN FANNING ANDREWS, NOVEMBER 9, 2019



Photo: Tim Gibson for Well+Good

Your skin has a memory. Those five words have the potential to completely change the way you think about your largest organ. New research suggests that our stem cells (unspecified cells in the body that have the ability to divide and grow into many different types of cells) keep track of wound responses like inflammation to better protect against upcoming attacks and essentially optimize them for future instances of inflammation. While a separate animal study even found that a wound on the skin of a mouse healed 2.5 times quicker when that spot was again injured. When you consider that pretty much everything you do to your skin either creates or calms inflammation, this is a big deal.

Case in point: The fact that your skin has memory may help anyone dealing with inflammatory responses like psoriasis understand why their cells seem to be caught in a feedback loop for no clear reason. It could shed light as to why second and third laser treatments require less downtime than the first. And in the shocker of all

shockers: It could once-and-for-all account for why your beloved serum works so much better when you pick it up a month after your last use.

"Believe it or not, our skin has a memory and a pretty good one," says Marc Ronert, MD, a plastic surgeon and founder of Hush & Hush, a brand of ingestibles that offer antioxidants and anti-inflammatories to lessen the incidence of environmentally induced harm to your skin. "It's not actually the skin cells that give skin this so-called memory, but rather stem cells, which are responsible for skin renewal and repair." Take sun damage. With every sun burn, according to Dr. Ronert, the DNA of those skin cells is altered permanently, which means that from then on, your skin's natural coping mechanisms are weakened. This happens on the flip side as well, as skin learns to cope with certain types of productive inflammation (like lasers, for example).

As we translate the meaning of all of this for our favorite products and personal practices, there's an obvious tie. In place of one-and-done in-office treatments, low-downtime options like Clear + Brilliant, Picosure, and Cutera's Secret RF have gained popularity even with the commitment of at least three appointments. Rather than simply extending the timeframe of improvement (as well as expanding your budget) doctors can pinpoint a distinct benefit. "We often recommend a series of laser treatments or a series of chemical peels, because we know that your skin responds even faster and better with each subsequent treatment," notes dermatologist Jessie Cheung, MD. This not only benefits the way that your skin *looks*, but because of its optimized function, you can also begin to see that it is repairing quicker and requiring less time to do so. Day-to-day that means that when your skin comes into contact with low levels of inflammation, it's better able to process it, and keep-on-keeping on.

The same is true for topicals, with a bit of skepticism from dermatologists. When strategizing bang for your buck in terms of products and treatments, Arash Akhavan, MD, of Manhattan's Dermatology and Laser Group keeps expectations in check. "In a sense, it is true that our skin 'has memory.' Our skin is a sensitive organ and will recognize and react differently to familiar versus foreign products," he notes. "There are certain types of immune cells in our skin that can cause inflammatory reactions in the same area repeatedly. But, I don't think this really plays any role in terms of positive effects from topical products." This is fair: The research is still out on specifics like topicals, but it doesn't mean that the possibility is off the table entirely.

Facial plastic surgeon Yael Halaas, MD, FACS, for example, thinks that there could be some sound logic behind the idea of coming back to beloved products again and again because their effects seem to level-up. "The skin has these stem cells in reservoirs around hair follicles," she says, and since those hair follicles exist across our entire body, "one could theorize that perhaps with certain familiar products that are being used again for a particular skin condition, one is seeing a better response." So when you take a break after the last pump of your favorite moisturizer, then return to it months later and wonder if you're imagining more impressive results, it might not all be in your head. "This could be because the stem cells are remembering the prior skin condition and know how to respond better and faster," says Dr. Halaas.

Chilling out and taking a little time off of a good thing can have real results. "Everyone recognizes that our skin often responds better to a product after we've given it some time off. But the key in this situation, to me, is the time off," says Kenneth Howe, MD at Wexler Dermatology. Dr. Howe believes that products often work by stimulating a response in our skin, and "after that's been going on a while, we start to see diminishing returns or, worse, a kind of exhaustion from over-stimulation." Rather than pushing through, this should be taken as your signal to give your complexion a much-needed European-style holiday. Say, three months—or even six—to recharge its battery, in a sense. "The skin needs a break, a vacation from that particular stimulus," says Dr. Howe. "Then it can return, refreshed, and respond much more positively."

Taking topicals a step further, cosmetic physician Tahl Humes, MD, who toggles between Denver and Chicago locations, recognizes the many versions of your skin's historical log. "Yes, our skin cells have memory—there is immune memory, inflammatory memory, and stem-cell memory," she says. And thanks to this multi-pronged backlog of events, there could be a definite tie to why topical products and treatments create different responses

over time. "We notice the skin 'remembers' how to heal, how to respond to repeat treatments with faster responses during subsequent treatments, and also seems to remember when we've used a cosmeceutical for about six-plus months," says Dr. Humes. Because of this, she suggests that it could be beneficial to switch up your skin-care regimen at least twice a year to keep your complexion performing at its peak. In many ways, it's a perfect excuse to branch out and try a new cache of products. When you do return to your all time faves, your skin will thank you.