

Sunscreen slows skin aging, if used often enough

June 3 2013, by Lauran Neergaard



In this Jan. 6, 2009 file photo, people play on the shoreline of Bondi Beach in Sydney. If worry about skin cancer doesn't make you slop on sunscreen, maybe vanity will: New research provides some of the strongest evidence to date that near-daily sunscreen use can slow the aging of your skin. The new study, from Australia's Sunshine Coast, used a unique step to measure whether sunscreens really help that constant onslaught. Researchers compared fine lines on the hands of hundreds of people who, for more than four years, had been assigned to rub on sunscreen daily or only when they deemed it necessary. (AP Photo/Rob Griffith, File)

New research from sunny Australia provides some of the strongest evidence to date that near-daily sunscreen use can slow the aging of skin.

[Ultraviolet rays](#) that spur wrinkles and other signs of aging can quietly build up damage pretty much anytime a person is in the sun—a lunchtime stroll, school recess, walking the dog—and they even penetrate car windows.

Researchers used a unique study to measure whether sunscreens really help. Participants had casts made of the top of their hands to measure fine lines and wrinkles that signal sun-caused aging.

The research found that even if a person is already middle-aged, it's not too late to start rubbing on some [sunscreen](#)—and not just at the beach or pool. The study of 900 people under 55 compared those randomly assigned to use sunscreen daily to those who used it when they deemed it necessary.

Daily sunscreen use was tough—participants did cheat a little. But after 4½ years, those who used sunscreen regularly had younger-looking hands, with 24 percent less skin aging than those who used sunscreen only some of the time.

Both [young adults](#) and the middle-aged experienced skin-saving effects, concluded the study, financed by Australia's government and published Monday in the journal *Annals of Internal Medicine*.

"These are meaningful cosmetic benefits," lead scientist Dr. Adele Green of the Queensland Institute of Medical Research said in an email interview. More importantly, she added, less sun-caused aging decreases the risk of skin cancer in the long term.



This undated handout photo provided by the Annals of Internal Medicine shows a demonstration of how a silicon cast is applied to the back of the hand so researchers can measure fine lines in the skin. . If worry about skin cancer doesn't make you slop on sunscreen, maybe vanity will: New research provides some of the strongest evidence to date that near-daily sunscreen use can slow the aging of your skin. The new study, from Australia's Sunshine Coast, used a unique step to measure whether sunscreens really help that constant onslaught. Researchers compared fine lines on the hands of hundreds of people who, for more than four years, had been assigned to rub on sunscreen daily or only when they deemed it necessary. (AP Photo/Annals of Internal Medicine)

Dermatologists have long urged year-round sunscreen use—especially for constantly exposed skin on the face, hands and women's neck and upper chest—but say too few people heed that advice. Women may have better luck, as increasingly the cosmetics industry has added sunscreen to makeup and moisturizers.

Dr. Eric Bernstein lectures patients who insist they're not in the sunshine enough for it to be causing their wrinkles, brown spots and dilated blood vessels. Even 15 minutes every day adds up over many years, he tells them—and if they're using one bottle of sunscreen a year, they're probably not using enough.

"No one thinks they're in the sun, and they're in the sun all the time," said Bernstein, a clinical professor at the University of Pennsylvania. "I say, 'How did you get here—did you tunnel here?'"

The news comes just as tougher Food and Drug Administration rules for U.S. sunscreens are taking effect. For the first time, they ensure that sunscreens labeled "broad-spectrum" protect against both the ultraviolet-B rays that cause sunburn and those deeper-penetrating ultraviolet-A rays that are linked to premature wrinkles and skin cancers.



This undated handout photo provided by the Queensland Institute of Medical Research is of a skin cast showing a high level of sun-caused skin aging. If worry about skin cancer doesn't make you slop on sunscreen, maybe vanity will: New research provides some of the strongest evidence to date that near-daily sunscreen use can slow the aging of your skin. The new study, from Australia's Sunshine Coast, used a unique step to measure whether sunscreens really help that constant onslaught. Researchers compared fine lines on the hands of hundreds of people who, for more than four years, had been assigned to rub on sunscreen daily or only when they deemed it necessary. (AP Photo/Queensland Institute of Medical Research)

Sunburns, especially in childhood, have been linked to a greater risk for

melanoma, the deadliest skin cancer. But overall UV exposure plays a role both in melanoma and in other skin cancers that usually are curable but can be disfiguring if not caught early.

Australia has one of the world's highest rates of [skin cancer](#), and the new research actually stems from a larger cancer-prevention study done in the 1990s. Researchers tracked participants for a decade before concluding that regular sunscreen use indeed lowered their cancer risk.

Green's team dug back through old study files to examine what's called photoaging.

Skin stretches and recoils thanks to elastic fibers supporting it. UV rays damage that elasticity, something scientists previously have measured using biopsies of the tissue just under the skin's top layer. With enough damage, the skin on top starts to sag and wrinkle. Young people have very fine, barely visible lines on their skin. Sun-damaged fibers correlate with increasingly visible lines, in a sort of cross-hatch pattern.



This undated handout photo provided by the Annals of Internal Medicine shows

some of the hand casts that scientists at Australia's Queensland Institute of Medical Research used to measure sun-caused aging of the skin. If worry about skin cancer doesn't make you slop on sunscreen, maybe vanity will: New research provides some of the strongest evidence to date that near-daily sunscreen use can slow the aging of your skin. The new study, from Australia's Sunshine Coast, used a unique step to measure whether sunscreens really help that constant onslaught. Researchers compared fine lines on the hands of hundreds of people who, for more than four years, had been assigned to rub on sunscreen daily or only when they deemed it necessary. (AP Photo/Annals of Internal Medicine)

The study also tested whether a dietary supplement, beta carotene, might slow photoaging, and found no evidence that it helped.

Sunscreens aren't perfect, so dermatologists' other advice includes limiting exposure during the peak UV hours of 10 a.m. to 4 p.m. and wearing a hat, sunglasses and protective clothing when possible.

Glogau noted that today's sunscreens are superior to those used two decades ago when the study started—meaning people who regularly use it now might see more benefit.

"I'm fond of telling people that if they start using sunscreen on a regular basis and don't do anything else, over a period of time they'll see an improvement in the appearance of their [skin](#)," Glogau said. "It's never too late."

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