

## Sunscreen Each Day Stops Wrinkles

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Dermatologists have been telling patients for years that using sunscreen regularly can protect skin against aging. Now there's research to back that up.



Doctors say appealing to the vanity of patients by warning them about skin aging is crucial in convincing them to use sunscreen more often to help prevent skin cancer.

**In a study published in the Annals of Internal Medicine, researchers showed that people instructed to apply sunscreen every day showed 24% less skin aging, as measured by lines and coarseness of the skin, than those told to use the cream as they usually do.**

"This is great fodder for us to encourage people to use sunscreen," said Jeffrey Dover, a dermatologist in Chestnut Hill, Mass. "I will quote this paper every day."

Sunscreen has long been touted as a way to stave off photoaging, or changes to the skin caused by sun exposure. But there wasn't hard evidence in humans to support the claim, study authors said. A trial published in 1995 involved 35 people with past skin cancer and found no evidence of sunscreen's protective effect, measured by looking at skin biopsies under a microscope. But larger, randomized trials open to the larger community hadn't been done, for logistical and cost reasons.

**A new study finds that using sunscreen daily significantly slows skin aging.** Researchers say it is the first scientific evidence of this benefit.

This study, part of a long-running skin-cancer-prevention trial, covered 903 adults younger than 55 living in Nambour, Australia, near the country's Sunshine Coast. All study participants were given sunscreen with a sun protection factor (SPF) of 15+. Half were randomly to be instructed to apply the sunscreen daily to exposed areas, reapplying after water immersion, heavy sweating or several hours spent outdoors, while half were told to use it as they normally would.

By the end of the study, which was funded by the Australian government, 77% of those told to use sunscreen daily were using it at least three to four days a week, compared with 33% of the control group. (The sunscreen was provided by a sunscreen manufacturer.)

Researchers took silicone impressions of the backs of participants' hands at the beginning of the study and after 4½ years. Trained assessors then graded the patterns of lines and skin coarseness on the hand impressions on a scale of one to six. The damage seen on the surface of the skin reflects the tissue damage underneath the skin, said Adèle Green, senior scientist and head of cancer and population studies at Queensland Institute of Medical Research in Australia and lead author of the study.

Participants were under 55 to assure that aging effects were the result of sun exposure, not the natural aging process, Dr. Green said.

**The results have a "double significance," she said, since the reduced skin damage from UV rays also translates to a lower risk of skin cancer.**

Dermatologists said vanity is a strong motivating force when it comes to sunscreen use. That's particularly true for young people, whose sunburns may put them at risk for skin cancer decades later, said James Spencer, a dermatologist in St. Petersburg, Fla. The threat of wrinkles is often a more powerful behavior-changer than the threat of cancer, he said. (Neither Dr. Spencer nor Dr. Dover was affiliated with the study.)

**Rules implemented last year by the U.S. Food and Drug Administration say that only sunscreens that are broad-spectrum—protecting against both UVA and UVB rays—and that have an SPF of 15 or higher can claim to reduce the risk of early skin aging and skin cancer.** Both types of rays are implicated in photoaging and cancer, Dr. Green said. Products that don't protect against both types of rays or that have an SPF between 2 and 14 can claim only to help prevent sunburn.

The new rules also say that products claiming water resistance must say how long a user can expect to get that protection while swimming or sweating, either 40 minutes or 80 minutes. **And sunscreens can no longer be called "sunblocks" or be labeled as "waterproof" or "sweatproof."**

**Dr. Spencer recommends that people look for water-resistant, broad-spectrum products with an SPF of at least 30.** "Don't be shy about putting it on," he said. "You're not getting the SPF on the bottle if you're putting it on too lightly."

"Look for something you like, or you won't use it," Dr. Dover added. "And don't have a full tube by the end of the summer."

Since experimental evidence has suggested that antioxidants consumed orally, such as beta carotene, can reduce signs of sun-related skin damage, the study also looked at whether a daily 30-milligram beta carotene supplement could protect against skin aging.

Researchers found no difference between those who took the supplement and those who didn't, though because of the number of study participants, researchers said they couldn't rule out a small effect one way or the other in certain groups of people.

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