

Are UVA rays making you look old? (Yes.)

Studies conducted over the past 10 years have exposed many harmful effects of long-wave UVA rays and UV-induced free radicals. But what you might not know is that UV rays are also responsible for [80% of premature skin aging](#), and that [nearly all skin aging for lighter-complexioned people under 50 can be attributed to sun or UV exposure](#). To slow or stop the process of photoaging, consumers must take proper precautions to protect against both UVA and UVB rays.

The impact of UV rays on skin aging

A [study](#) involving 298 Caucasian women between the ages of 30 and 78 was conducted in southern France to clinically quantify the effect of sun exposure on facial aging. Scientists asked the participants a series of questions about their residence, location, occupation, past UV exposure, current UV exposure, and sunscreen habits, and then divided the women into two groups: 157 women were classified as "sun-seeking" and 141 as "sun-phobic." They were next divided into 10-year age clusters: 30-39, 40-49, 50-59, and so on. All women received a dermatologist evaluation and had their pictures taken.

The women's photographs were analyzed by a group of 12 objective experts who were trained to make relevant evaluations based on established clinical aging signs of the face (**Fig. 1**). 30 Caucasian panelists were also asked to provide their opinion as to the age of each woman.

UV rays are responsible for 80% of premature skin aging

The results were significant. Women of all ages who spent time in the sun without protection showed more clinical signs of aging, especially pigmentation-related changes. Women over 50 who spent time in the sun without protection also had notably more wrinkles as well as a change in their skin texture quality as compared to their peers who had more conservative sun habits. The study concluded that sun exposure accounted for 80.3% of the visible aging observed on the women's faces.

Fig. 1: Clinical Markers of the Aging Face

Wrinkles and texture changes (upper lip, cheek folds)

Lack of skin firmness (sagging, drooping)

Pigmentary disorders (eye contour color contrast, pigmentation of the malar area)

Vascular alterations (rosacea, diffused redness and micro-vessels)

Sun damage leads to a significant difference in perceived age and actual age in those under 70.

Wrinkles, cheek & jawline folds, eye contour color difference, pigmentation, spots, and changes to upper lip & chin texture are all exacerbated by UV exposure.

Nearly all skin aging for lighter-complexioned people under 50 can be attributed to sun or UV exposure.

But why?

Over the course of an individual's life, [elastin and collagen fibers naturally become lax](#), resulting in the typical signs of aging.

www.solesence.com

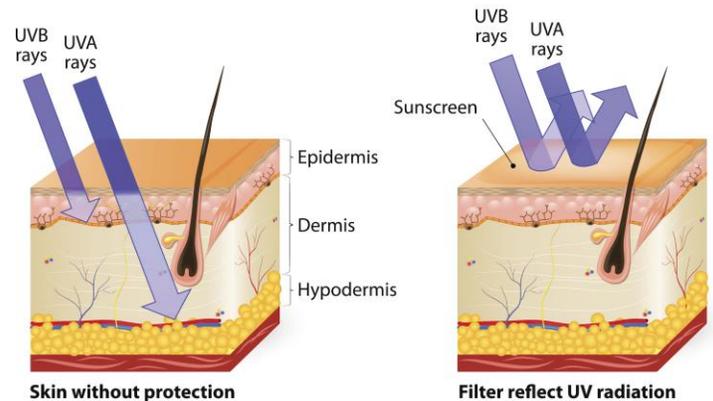
Environmental factors, and UVA rays in particular, can speed up this process by years.

When the skin is exposed to environmental stressors like the sun, UV-induced free radicals and reactive oxygen species (ROS) enter the skin, causing oxidative stress, [damage to collagen and elastin fibers](#), and the [depletion of antioxidant systems](#). UV rays also induce skin cells to overexpress [melanin](#), causing spots, blotchiness, and irregular pigmentation.

Many people are unaware that this damage is taking place, because although UVA rays account for [up to 95% of the UV radiation that reaches the earth's surface](#), they do not leave behind the immediate sunburn that UVB rays do, and their effects can be delayed. However, UVA rays are able to penetrate glass and are equally strong during all daylight hours throughout the year, which makes sun damage—and UVA-induced free radical damage—a year-round problem. For

protection from the sun and UV-induced free radicals, the [American Academy of Dermatology recommends](#) the daily use of broad-spectrum sunscreen with SPF 30+.

UV penetration into the layers of the skin



Anti-aging techniques

More and more, consumers are looking for ways to actively prevent the negative effects of the sun and other environmental stressors. At Solésence, we think that everyone should be able to enjoy carefree time outdoors without worrying about skin damage, early skin aging, and skin cancer, so we have developed the technology to help your customers do just that. Unlike most private label cosmetic manufacturers and skin care contract manufacturing companies, we have a [patented formula](#) that transforms the way mineral sunscreen activates function. That's how we are able to offer skin care brands a product line that moves beyond basic sun protection to actively [quench free radicals](#) and [prevent UV-induced premature skin aging](#). Each product your brand sells will be a skin health complex that provides unprecedented free radical quenching and antioxidant boosting and capabilities. Your customers will experience the immediate rewards of top-shelf skin care, and will continue to reap the benefits for years to come.

Learn more about our white label products and our custom formulations today.