

# *the* **SPRING GLOW CONUNDRUM**

*Has the pendulum swung too far? The doctor weighs in on the pros and cons of sun exposure.*

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**AS WINTER DRAGS** on in Chicago, it is hard not to fantasize about feeling the cocoon-like warmth of the sun caressing you from head to toe on the sunny beach. As the ocean breeze whistles through your hair, you take a refreshing dip in the infinity pool while sipping a nice, cool piña colada. Ahhh...but wait! Aren't you forgetting something? The small Id reminder quickly brings you back to reality and veers thoughts in a new direction—what about the sunscreen?

We have all been berated with the importance of sunscreen and its power to protect from skin damage, premature aging, and skin cancer. Recently I took a daddy-daughter retreat to Mexico with my nine-year-old daughter, and I violated one of the Ten Commandments by forgetting to put on her sunscreen! Oh no! What's going to happen? Is she going to get skin cancer? Age too fast? Maybe she will melt! What will I tell her mother? What will I tell my mother?


As a plastic surgeon, I recommend sunscreen to all my patients. During our training, we learn and study the harmful effects sun exposure can have

on skin. Sunlight contains Ultraviolet A (UVA) and Ultraviolet B (UVB) rays that are responsible for the sun's damaging effects on the skin. UVB rays come from the sun's burning rays and are responsible for the immediate red response we get on our skin. The UVA rays extend further into the skin and are responsible for the damage that occurs deeper down, negatively affecting our skin's DNA, which could potentially lead to cancer. UVA rays that are capable of getting through clouds and glass are also prevalent in the winter; therefore, the importance of sun protection is stressed year-round.

Sunscreens are rated based on their Sun Protection Factor (SPF). The SPF is a measurement of the amount of UVB protection—the higher the number, the greater the protection. Currently, there is no commercialized standard rating system that measures UVA protection.

An SPF of 15 to 30 is adequate for most people who want to block the sun. However, the beneficial effect of sunscreen decreases over time, so after two hours or a dip in the pool it should be reapplied. Sunscreens are





good at providing a broad spectrum of protection against both UVA and UVB rays. Look for products containing zinc oxide and titanium dioxide which scatter the UV rays before they penetrate the skin. Avobenzone or oxybenzone and Mexoryl absorb those UV rays.

The dermatology community has aggressively and respectfully promoted sunscreen use for years, and the advice has been well-heeded. This message is important, especially since dermatologists see skin cancer so often. In fact, earlier this winter I was at a medical conference in the Cayman Islands with a close friend who is also a dermatologist. We decided to grab a burger by the beach. To my surprise, when we met he was covered from head to toe with specially-designed sun-protective clothing and any mildly exposed area of skin was covered with a thick layer of white, pasty sunscreen. I couldn't help but chuckle at his appearance. He had even applied sunscreen under his watch! Wow! I felt embarrassed, and maybe heretical, because I was protected only with bathing trunks and sunglasses.

Maybe I should have at least put on a shirt. Once again, I was reminded that protection from the sun is important.

It is well-established that sun exposure is the main cause for the development of skin cancer. Intermittent high-dose UV exposure aids in the occurrence of the two most common skin cancers: basal and squamous cell carcinoma. Both cancers are locally treated and rarely cause death. Chronic, continuous UV radiation, however, is believed to induce malignant melanoma, a rarer and possibly lethal cancer. (3) The American Cancer Society recognizes skin cancer as the most common of all cancer types. More than one million skin cancer cases are diagnosed each year in the United States. As a plastic surgeon, I readily recognize the accelerated skin aging, deep-etched wrinkles, and cancerous bodies that can occur with too many years of sun exposure.

But why do we, myself included, like the sun so much? Why, on vacation, are there fights to get the right chair? Why are rows of people basking in the sun while its dangers are vastly broadcasted? Is this all just for a sun-kissed look?

Maybe not! A tanned appearance, first made fashionable by Coco Chanel, does suggest an image of beauty and a lifestyle of luxury. However, in an attempt to carry a chic, euphoric hue while avoiding the damaging effects of the sun, many like to mimic the tanning effects with sunless tanners. But can a feeling of beauty and bliss really be replicated with a tinting cream? If it were just about looking tan, then a self-tanner should do it, right? Most sunless tanners today are safe and are pretty good at achieving a bronzed sheen without the embarrassingly orange shading once too obviously spotted in muscle head gyms and suburban grocery stores. But there are other reasons beyond the tan color that attract us to the sun. Moderate sun exposure in the short-term does make our skin look better. The sun causes a slight and temporary thickening and swelling of the skin along with a microscopic enlarging of the blood vessels. The dilated blood vessels transmit a mild red tone to the skin contributing to an appearance that is subconsciously perceived by others as being healthy.



The slight swelling and thickening to the upper layers of the skin will temporarily reduce the appearance of wrinkles and pore size, and the golden brown look will camouflage the aging dark spots that the pasty mid-winter months expose. The result is a more youthful, glowing, and healthier appearance.

disease, and colorectal cancer as well as being a likely boost to the immune system. Maybe this is why we feel under the weather during the colder months when our Vitamin D levels are low. (2) It is recommended that both adults and children receive 1000 I.U. (international units) of Vitamin D every

sufferers even receive light therapy to treat their disease. However, for the majority of us who get a little glum in the winter, a teaspoon of sun might make all the difference in the world—and this might be the number one reason we still sit in the sun, regardless of recommendations for the opposite.

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During the winter months, with maximum job, holiday, and weather stressors, we find ourselves missing the good vibrations of the sun even more. An unfortunate byproduct of being a sunscreen nation is that we might also be a Vitamin D deficient nation. Sunlight is necessary for our bodies to create Vitamin D. Doctors are just starting to recognize the high prevalence of Vitamin D deficiency in the U.S. and the negative implications it can have on our health.

Vitamin D is linked to catecholamine synthesis, or the production of chemicals in our body that provide a good mood and help us adapt to stress. (5) It is postulated that higher latitudes and winter months might predispose to higher rates of Vitamin D deficiency. (6) Vitamin D deficiency is associated with the development of bone deformities such as rickets and bowed legs in children, and fractures and falls in older adults. Additionally, studies have linked Vitamin D to protecting against certain muscle disorders, cardiovascular

day. While many attain Vitamin D in milk and some food products, there's no better way to get it than organically. It's a conundrum—the sun causes certain diseases but also protects us from others. But perhaps the most important reason why many of us adore the sun is that it simply makes us feel better!

It is estimated that one to ten percent of Americans suffer from a form of winter depression known as SAD, or Seasonal Affective Disorder. While it is common for many to develop a mild case of the winter blues, SAD individuals can be severely affected, necessitating medical intervention. Some SAD

Unprotected sunbathing in the short-term can cause sunburn and blistering, and can ultimately ruin a vacation. In the long-term, excess sun exposure leads to accelerated skin aging and skin cancer. On the other hand, complete sun avoidance might lead to Vitamin D deficiency, increased rates of cancer, and slight feelings of winter despair. Perhaps, like my grandfather used to say, we should take “everything in moderation.” While too much sun is clearly dangerous, sensible sun exposure might make you feel happier while improving your appearance, and deep down, make you healthier. ■

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