

Will I be vitamin D deficient if I wear sunscreen?



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As a dermatologist, I routinely talk about the importance of wearing sunscreen to help prevent skin cancer.

Some epidemiological studies indicate that low levels of vitamin D may increase susceptibility to certain cancers as well as infection, hypertension and autoimmune disorders, including rheumatoid arthritis. Sunlight stimulates the body to produce vitamin D. Since sunscreen reduces the synthesis of this nutrient, some have suggested that people who wear sunscreen are at higher risk for disorders linked to vitamin D deficiency.

Does this mean you should toss out your sunscreen or schedule visits to the tanning salon? Not so fast! A little sunshine may be a good thing, but the argument for getting more vitamin D from unprotected sun exposure is not.

New cases of skin cancer continue to rise. Melanoma, the most dangerous form, claims the life of one person nearly every hour in the United States. We've known for years that sunscreens prevent sunburn and skin cancer by blocking the UVB rays that vary in intensity throughout the year. More recently, we've learned that the longer, more deeply penetrating UVA rays — which account for more than 90 percent of UV light and stay relatively constant year-round — play a role in skin cancer and wrinkling. This is why dermatologists now recommend the newer generation of "broad spectrum" sunscreens that block both groups of rays.

The association between vitamin D

deficiency and certain cancers (especially colorectal) has been used by some as a rationale to abandon sun protection. Others suggest that the vast majority of Americans lack vitamin D, or that the daily recommended requirement for the "sunshine" vitamin is too low. Some in the tanning industry are promoting increased use of salons as a way to get enough vitamin D, despite mounting evidence that the UVA rays absorbed by their customers cause skin cancer and premature aging.

It will take years of well-designed prospective studies to know definitively what role, if any, vitamin D, plays in protecting against cancer or other diseases. Meanwhile, while a few earlier studies indicated sunscreen significantly interferes with the vitamin D we produce, more recent randomized studies reached a different conclusion. After following people for months and, in a few cases, years, researchers found sunscreen does not hamper vitamin D production enough to cause a deficiency. In fact, even people diligent about daily sun protection get some incidental sun exposure. Sunscreens allow a fraction of UVB radiation in — 7 percent with SPF 15 and 3 percent with SPF 30. Moreover, people typically apply less than the recommended amounts of sunscreen, or may miss spots like the back of their neck or hands.

Controversy continues over whether, and to what extent, Americans suffer from vitamin D deficiencies. If you're concerned, rather than cutting back on sunscreen, consume more foods rich in vitamin D, such as salmon, fortified orange juice and milk. The National Institutes of Health states it does not take much sunlight to make adequate amounts of vitamin D — likely as little as 30 minutes twice a week without sunscreen. If you have or are at risk for skin cancer, or simply wish to avoid the wrinkling and discoloration associated with habitual sun exposure, taking a vitamin D supplement (1,000 IU daily) is a safer way to help assure adequate levels.