

Does sunscreen compromise vitamin D levels?

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Sunscreen can reduce the sun's adverse effects, but there are concerns that it might inhibit the body's production of vitamin D. In a new *British Journal of Dermatology* study, however, investigators recorded an increase of vitamin D in participants during a week of cloudless weather, with very high UV index, even when sunscreens were used properly and prevented sunburn.

Sunlight contains UVA and UVB radiation, and the latter is essential for vitamin D synthesis. Two sunscreens with the same SPF were compared. Sunscreen with a high UVA protection factor enabled significantly higher vitamin D synthesis than a low UVA protection factor sunscreen, likely because it allows more UVB transmission.

The findings indicate that the benefits of sunscreen use can be obtained without compromising vitamin D levels.

"Sunlight is the main source of vitamin D. Sunscreens can prevent sunburn and [skin cancer](#), but there has been a lot of uncertainty about the effects of sunscreens on vitamin D," said lead author Prof. Antony Young, of King's College London. "Our study, during a week of perfect weather in Tenerife, showed that sunscreens, even when used optimally to prevent sunburn, allowed excellent vitamin D synthesis."

More information: A.R. Young et al. Optimal sunscreen use, during a sun-holiday with a very high UV index, allows vitamin D synthesis without sunburn, *British Journal of Dermatology* (2019). [DOI: 10.1111/bjd.17888](#)

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