

It is well-established that vitamin D deficiency or insufficiency is very common among northern populations. However, there is little information on the prevalence of vitamin D deficiency in southern climates with high sun exposure. A recent study shows that adult residents of southern Arizona are commonly deficient in vitamin D despite living in an area with chronic sun exposure.

Vitamin D insufficiency widespread even in sunny climates

A new study published in the American Journal of Clinical Nutrition determined and analyzed blood vitamin D levels in a group of residents of southern Arizona (statistically representative of the larger population).

Participants were categorized into 4 groups on the basis of serum vitamin D concentrations: <10.0 ng/mL, 10.0 to 19.9 ng/mL, 20.0 to 29.9 ng/mL, and 30.0 ng/mL and over. A level of 30 ng/ml is considered a minimum healthy level, and more optimal levels are at 50 ng/ml or more.

The average vitamin D concentration for the total population was 26 ng/mL. Of 637 participants, 22.3% had vitamin D concentrations >30 ng/mL, 25.4% had concentrations <20 ng/mL, and 2.0% had concentrations <10 ng/mL. Blacks (55.5%) and Hispanics (37.6%) were more likely to have deficient vitamin D concentrations (<20 ng/mL) than were non-Hispanic whites (22.7%). Exposure to sunlight had a greater effect on vitamin D levels in whites than in blacks and Hispanics.

Adult residents of southern Arizona are commonly deficient in vitamin D despite living in an area with chronic sun exposure. Adults with darker skin are particularly at risk for vitamin D insufficiency.

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