

Researchers learn that genetics determine winter vitamin D status

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Vitamin D is somewhat of an unusual "vitamin," because it can be made in the body from sunlight and most foods do not contain vitamin D unless added by fortification. Synthesis of vitamin D in the body requires exposure to ultraviolet light and can be influenced by genetics, skin color, and sun exposure.

Reports of greater than expected vitamin D insufficiency coupled with emerging evidence that higher circulating concentrations of this nutrient may protect against cardiovascular disease have prompted a renewed interest in teasing out how environment, genetics, and behavior work independently and coordinately to influence vitamin D status.

To help clarify this, researchers at Emory University studied vitamin D status in twins living in different North American locations. You can read more about this study in the December 2010 issue of the [American Journal of Clinical Nutrition](#).

"The results of the Karohl study are quite important," according to American Society for Nutrition Spokesperson Shelley McGuire, PhD. "Over the past couple decades, nutrition scientists have discovered that maintaining optimal vitamin D status is important for much more than keeping our bones strong. It's also critical for keeping our immune systems healthy and may help protect against diseases like [heart disease](#) and cancer.

This study suggests that, whereas genetic differences impact winter

[vitamin D](#) status, lifestyle choices and [sun exposure](#) (factors we can control) are predominant in the summer months. Additional research is still needed in more heterogeneous populations."

More information: Heritability and seasonal variability of vitamin D concentrations in male twins

[asn-cdn-remembers.s3.amazonaws.com/f38d4321e0defd45.pdf](#)

Provided by American Society for Nutrition

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