

# Sun exposure, vitamin D may lower risk of multiple sclerosis

February 7 2011

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People who spend more time in the sun and those with higher vitamin D levels may be less likely to develop multiple sclerosis (MS), according to a study published in the February 8, 2011, print issue of *Neurology*, the medical journal of the American Academy of Neurology. MS is a chronic disease of the brain and spinal cord, usually with recurrent flare-ups of symptoms. It is often preceded by a first episode (or event) of similar symptoms lasting days to weeks.

"Previous studies have found similar results, but this is the first study to look at people who have just had the first symptoms of MS and haven't even been diagnosed with the disease yet," said study author Robyn Lucas, PhD, of Australian National University in Canberra. "Other studies have looked at people who already have MS—then it's hard to know whether having the disease led them to change their habits in the sun or in their diet."

The multi-site study involved 216 people age 18 to 59 who had a first event with symptoms of the type seen in MS. Those people were matched with 395 people with no symptoms of possible MS who were of similar ages, of the same sex and from the same regions of Australia.

The participants reported how much sun they were exposed to during different periods of their lives, and researchers also measured the amount of skin damage participants had from sun exposure and the amount of melanin in their skin. Vitamin D levels (from sun exposure, diet and supplement use) were measured by blood tests.

The risk of having a first event, diagnosed by a doctor, ranged from approximately two to nine new cases for every 100,000 people per year in this study. The reported UV light exposure of participants ranged from about 500 to over 6,000 kilojoules per meter squared. The researchers found that the risk of having a diagnosed first event decreased by 30 percent for each UV increase of 1,000 kilojoules. They also found that people with most evidence of skin damage from sun exposure were 60 percent less likely to develop a first event than the people with the least damage. People with the highest levels of vitamin D also were less likely to have a diagnosed first event than people with the lowest levels.

Studies have shown that MS is more common in latitudes further away from the equator, and this has been confirmed in Australia.

"Added together, the differences in sun exposure, vitamin D levels and skin type accounted for a 32-percent increase in a diagnosed first event from the low to the high latitude regions of Australia," Lucas said.

Lucas noted that the effects of sun exposure and vitamin D acted independently of each other on the risk of first event. "Further research should evaluate both sun exposure and [vitamin D](#) for the prevention of MS," Lucas said.

Lucas also stated that people should continue to limit their [sun exposure](#) due to skin cancer risks. She also noted that the risks of tanning beds far outweigh any possible protective effect against MS. Exposure to the sun has not been shown to benefit people who already have MS.

Provided by American Academy of Neurology

Citation: Sun exposure, vitamin D may lower risk of multiple sclerosis (2011, February 7)

retrieved 24 April 2024 from

<https://medicalxpress.com/news/2011-02-sun-exposure-vitamin-d-multiple.html>

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