

## Low "Sunshine Vitamin" Levels Linked to High Risk of MS in Children

by [Clarence V](#)



Twin studies conducted by Canadian researchers found that lower levels of vitamin D, also known as 'sunshine vitamin', may perk up chances of developing multiple sclerosis (MS) in children.

The researchers presented their findings at the World Congress on Treatment and Research in Multiple Sclerosis (MS) held in Montreal on Friday. These were the first ever studies conducted on children while many past studies show adults living in northern latitude, who get less exposure to vitamin D inducing sunshine, being at increased risk of MS.

A chronic disease, Multiple sclerosis (MS) affects the central nervous system. The symptoms range from mild to severe, including changes in sensation, visual problems, muscle weakness, difficulties with coordination and speech, severe fatigue, depression, cognitive impairment, problems with balance, overheating, and pain. In severe cases, the debilitating disease can lead to impaired mobility and disability.

More than 55,000 people in Canada and around 400,000 people in the United States are suffering from the disease. Previous studies linked MS to environmental and genetic factors.

The Vice-president of biomedical research at the National Multiple Sclerosis Society, Patricia O'Looney said, "In MS, the immune system is mis-regulated, and we do know that there's a susceptibility in the genes we inherit from our parents. We know that something triggers the disease."

Explaining further he said, "We know from epidemiological studies that there's a higher prevalence of MS the farther away you live from the equator and, more recently, we've learned that vitamin D does regulate the immune system."

Lead author of one of the studies, Dr. Brenda Banwell, [pediatric](#) neurologist of Toronto's Hospital for Sick Children and colleagues measured the levels of Vitamin D in more than 100 children suffering from a possible first attack of MS. Just 6 per cent of those with high levels of the sunshine vitamin developed full-blown MS within the next two years, as compared to 27 percent of those with low levels developed MS.

Therefore the results show that "the lower your level of vitamin D, the higher your risk of having an MS diagnosis."

The researchers say that they will see if giving sunshine [vitamin supplements](#) will prevent MS or help in relieving the symptoms.

Actually a hormone, Vitamin D is produced in skin exposed to the ultraviolet B (UVB) rays in the sunlight. Also found in fatty fish like salmon, egg yolks and margarine, the vitamin is essential for bone [health](#) and may slow the progression of arthritis. It is also believed to strengthen the immune system, lower blood pressure and possibly prevent many cancers including prostate, breast, and especially colon cancer.

Usually children get enough vitamin D through exposure to sunlight during normal day-to-day outdoor activities but some children have very low levels of daily sun exposure. This could be due to their reduced outdoor activities ([computer games](#), watching more TV etc), geographic conditions or [air pollution](#).

Another study led by Heather Hanwell, a doctoral student at the University of Toronto and team of scientists studied 125 children who had evident damage to [myelin](#) that causes symptoms such as numbness.

They took the blood samples of the children and found that 68 percent of the children suffering from a demyelinating condition had low vitamin D levels and within one year 20 of the children were diagnosed with MS.

Heather Hanwell said, "This would suggest that vitamin D could be involved in the underlying disease and that having a low vitamin D status may increase your risk of being diagnosed with MS."

Deficiency of Vitamin D can occur due to inadequate dietary intake of preformed vitamin D, malabsorption of vitamin D, or too little exposure to sunlight. Medical studies have suggested that Vitamin D may also help with (SAD). Alzheimer's disease too is often associated with low levels of vitamin D.

As little as 30 minutes of early morning or late afternoon sunlight on the face, hands and arms twice or thrice a week can supply the entire Vitamin D one needs. In addition, many experts recommend 400-600 IU a day for people over 50s, 800 IU for over 70s and 200 IU for adults aged 19 to 55.