

Give pregnant women vitamin D supplements to ward off multiple sclerosis, research says

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The risk of developing multiple sclerosis (MS) is highest in the month of April, and lowest in October, indicates an analysis of the available evidence, published online in the *Journal of Neurology Neurosurgery and Psychiatry*.

The findings, which include several populations at latitudes greater than 52 degrees from the [equator](#) for the first time, strongly implicate [maternal exposure](#) to [vitamin D](#) during pregnancy.

They extend previous research and prompt the authors to conclude that there is now a strong case for vitamin D supplementation of [pregnant women](#) in countries where ultraviolet light levels are low between October and March.

The researchers compared previously published data on almost 152,000 people with MS with expected [birth rates](#) for the disease in bid to find out if there was any link between country of birth and risk of developing [multiple sclerosis](#).

At latitudes greater than 52 degrees from the equator, insufficient ultraviolet light of the correct wavelength (290 to 315 nm) reaches the skin between October and March to enable the body to manufacture enough vitamin D during the winter months, say the authors.

The analysis indicated a significant excess risk of 5% among those born in April compared with what would be expected. Similarly, the risk of

MS was 5 to 7% lower among those born between October and November, the data indicated.

In order to exclude wholly or partially overlapping data, and therefore the potential to skew the data, the authors carried out a further "conservative analysis" in which such studies were left out.

This reduced the number of people with MS to just under 78,500 and showed a clear link only between November and a reduced risk of MS.

But this result is likely to have been due to the fact that all the excluded studies involved countries more than 52 degrees from the equator, explain the authors.

When the same analysis was carried out again, but this time including all those involving people living in countries less than 52 degrees from the equator, the same seasonal trends were apparent.

There was a significant increase in risk among those born in April and May and a significantly lower risk among those born in October and November.

No studies from the southern hemisphere were included in the analysis, largely because so few have been carried out, so the results should be viewed in light of that, caution the authors.

But they conclude: "Through combining existing datasets for month of birth and subsequent MS risk, this study provides the most robust evidence to date that the month of birth effect is a genuine one."

And they go on to say: "This finding, which supports concepts hypothesised some years previously, surely adds weight to the argument for early intervention studies to prevent MS through vitamin D

supplementation."

Provided by British Medical Journal

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