

# Mother's vitamin D deficiency linked to offspring autism spectrum disorder

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Maternal vitamin D deficiency during pregnancy was associated with 44% increased risk of ASD in the offspring when compared to mothers who had sufficient levels of vitamin D during pregnancy. The study was

conducted in collaboration with researchers from the University of Turku, Finland, and Columbia University, New York.

Low maternal vitamin D intake during pregnancy can influence the development of autism in the child along with [genetic factors](#), maternal smoking, parental age at birth, and obstetric complications.

The result remained the same when other factors such as maternal age, immigration, smoking, psychopathology, [substance abuse](#), the gestational week of blood draw, season of blood collection, and gestational age were taken into consideration.

"The results are significant for public health as vitamin D deficiency is readily preventable," states first author, Professor Andre Sourander from the University of Turku, Finland.

The research group has previously shown that vitamin D deficiency is also associated with an increased risk of ADHD in the offspring. The serum samples were collected before the national recommendation for vitamin D supplementation during pregnancy was introduced in Finland. The current recommendation for [pregnant women](#) is a daily supplement of 10 micrograms of vitamin D throughout the year.

"Vitamin D deficiency is a major global problem," Professor Sourander remarks.

The study included 1,558 cases of ASD and an equal number of matched controls born in Finland between January 1987 and December 2004, followed up until December 2015. The results were published in the *Biological Psychiatry* journal.

**More information:** Andre Sourander et al, Maternal Vitamin D Levels During Pregnancy and Offspring Autism Spectrum Disorder, *Biological*

*Psychiatry* (2021). [DOI: 10.1016/j.biopsych.2021.07.012](https://doi.org/10.1016/j.biopsych.2021.07.012)

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