

Low-dose iron supplementation has no benefit for breastfed infants, shows study

May 20 2024



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The American Pediatric Association recommends iron supplements to all healthy infants who breastfeed longer than four months, while its European counterpart, Society of Gastroenterology, Hepatology and

Nutrition, does not recommend it.

These deviating guidelines stimulated researchers to design a new study. Breastfeeding is strongly recommended, and the proportion of children are breastfed during the first half of life is high. The researchers wanted to determine whether breastfeeding babies could benefit from extra iron.

The aim of the SIDBI trial was to compare the guidelines based on the effect of iron supplementation on the children's psychomotor development.

International cooperation

SIDBI stands for Supplementing Iron and Development in Breastfed Infants and is a randomized, placebo-controlled trial that was conducted between December 2015 and May 2020 with follow-up until May 2023. It was an [international collaboration](#) between the Medical University of Warsaw and Umeå University, and the children were recruited in both Poland and Sweden.

In total, 221 infants were recruited. If exclusively breastfed at four months, they were randomly assigned to receive either iron, 1 mg/kg, or placebo once daily from 4 to 9 months of age. The participants were then assessed by a psychologist at 12, 24 and 36 months of age. Cognitive, motor and language abilities as well as [behavioral problems](#) were studied.

The results are [published](#) in the journal *JAMA Pediatrics*.

Results fill the knowledge gap

"We did not see any significant differences in psychomotor development

between children who received extra iron and children who received placebo," says Ludwig Svensson, Ph.D. student in the SIDBI trial. "In other words, there was no benefit from [iron supplements](#) for development. More children in the [placebo group](#) had [iron deficiency](#), but the difference was not significant.

"Our results provide high-quality evidence in the field where randomized trials were lacking. They reinforce the European guidelines not to recommend iron supplements to all healthy [breastfed infants](#). We are proud to have published the results in *JAMA Pediatrics*, and we hope for a lot of attention for the study."

Ludwig is looking forward to analyzing the remaining data within the SIDBI study.

"Among other things, we will look at behavioral problems at the age of 3. It will be very exciting to see if behavior that can be associated with ADHD or [autism spectrum](#) was affected by iron supplements."

More information: Ludwig Svensson et al, Effect of Low-Dose Iron Supplementation on Early Development in Breastfed Infants, *JAMA Pediatrics* (2024). [DOI: 10.1001/jamapediatrics.2024.1095](https://doi.org/10.1001/jamapediatrics.2024.1095)

Provided by Umea University

Citation: Low-dose iron supplementation has no benefit for breastfed infants, shows study (2024, May 20) retrieved 21 June 2024 from <https://medicalxpress.com/news/2024-05-dose-iron-supplementation-benefit-breastfed.html>

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