

Treating nutritional iron-deficiency anemia in children

June 13 2017



A small child in Mumbai, with a shaved head, eating bread with her hand.
Credit: Wen-Yan King/Wikipedia

In a study published by *JAMA*, Jacquelyn M. Powers, M.D., M.S., of the

Baylor College of Medicine, Houston, and colleagues compared two medications, ferrous sulfate and iron polysaccharide complex, for the treatment of nutritional iron-deficiency anemia in infants and children.

Ferrous sulfate is the most commonly prescribed oral [iron](#) despite iron [polysaccharide](#) complex possibly being better tolerated. Iron-deficiency anemia (IDA) affects millions of persons worldwide, including up to 3 percent of children ages 1 to 2 years in the United States, and is associated with impaired neurodevelopment in [infants](#) and children.

The most common cause of IDA in this group is inadequate dietary iron intake resulting from excessive cow milk consumption, prolonged breastfeeding without appropriate iron supplementation, or both.

In this study, the researchers randomly assigned 80 infants and children ages 9 months to 4 years with nutritional IDA to three mg/kg of elemental iron once daily as either ferrous sulfate drops or iron polysaccharide complex drops for 12 weeks; 59 completed the trial (28 [70 percent] in the ferrous sulfate group; 31 [78 percent] in the iron polysaccharide complex group). The authors found that ferrous sulfate resulted in a greater increase in hemoglobin concentration at 12 weeks compared with iron polysaccharide complex. The proportion of infants and children with a complete resolution of IDA was higher in the ferrous sulfate group (29 percent vs 6 percent).

"Once daily, low-dose ferrous [sulfate](#) should be considered for children with nutritional iron-deficiency anemia," the authors write.

Limitations of the study include that it was conducted at a single tertiary care [children's](#) hospital.

More information: *JAMA* (2017). [DOI: 10.1001/jama.2017.6846](https://doi.org/10.1001/jama.2017.6846)

Provided by The JAMA Network Journals

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