Iron-Fortified Infant Formulas

The feeding of iron-fortified formula to infants has been shown to practically eliminate overt iron deficiency,1-3 the most common cause of anemia in childhood. The use of iron-fortified formula has increased steadily in recent years, from 40% of all US formula sales in 1971 to approximately 80% in 1985.4 This trend has been credited as the major factor in the declining prevalence of anemia in US infants, among both low-income5-7 and middle-class8 populations.

As many as 20% of formula-fed infants still receive low-iron formulas, which contain only 1.5 mg of iron per liter. Apparently, there is a misconception in a small segment of the health care community which believes that infants fed iron-fortified formulas are more likely to suffer gastrointestinal problems, such as colic, constipation, diarrhea, or regurgitation, than are infants fed low-iron formulas. The impression that low-iron formulas are associated with fewer adverse gastrointestinal reactions is not supported by controlled comparisons. Oski9 found no difference in the stool frequency or the incidence of colic, regurgitation, or vomiting between two groups of infants fed iron-fortified or low-iron formula. Nelson and coworkers10 conducted a double-blind crossover comparison of low-iron and iron-fortified formulas. There was no difference in the prevalence of fussiness, cramping, regurgitation, colic, or flatus and no difference in stool characteristics except for color (darker with iron-fortified formula). The lack of adverse reactions to iron fortification of formulas is further supported by the fact that even therapeutic doses of iron are well tolerated by infants.11

Another concern expressed regarding the routine use of iron-fortified formulas is the possibility of adverse effects of iron on the absorption of other minerals, particularly zinc and copper. Available evidence12,13 indicates that iron fortification of formulas does not impair the absorption of these minerals to a degree that is nutritionally important given the levels of zinc and copper in infant formulas.

In conclusion, the Committee on Nutrition sees no role for the use of low-iron formulas in infant feeding and recommends that iron-fortified formula be used for all formula-fed infants.

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