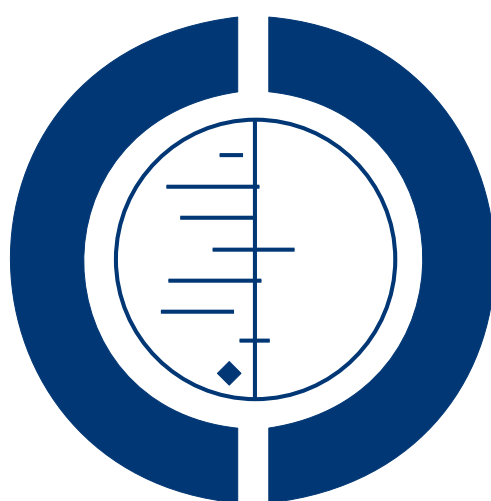


Early additional food and fluids for healthy breastfed full-term infants (Review)

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[Intervention Review]

Early additional food and fluids for healthy breastfed full-term infants

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Editorial group: Cochrane Pregnancy and Childbirth Group.

Publication status and date: New, published in Issue 12, 2011.

Review content assessed as up-to-date: 30 August 2011.

Citation: Becker GE, Remington S, Remington T. Early additional food and fluids for healthy breastfed full-term infants. *Cochrane Database of Systematic Reviews* 2011, Issue 12. Art. No.: CD006462. DOI: 10.1002/14651858.CD006462.pub2.

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ABSTRACT

Background

Widespread recommendations from health organisations encourage exclusive breastfeeding for six months. However the addition of other fluids or foods before six months is common practice in many countries and communities. This practice suggests perceived benefits of early supplementation or lack of awareness of the possible risks.

Objectives

To assess the benefits and harms of supplementation for full-term healthy breastfed infants and to examine the timing and type of supplementation.

Search methods

We searched the Cochrane Pregnancy and Childbirth Group's Trials Register (1 March 2011) and reference lists of all relevant retrieved papers.

Selection criteria

Randomised or quasi-randomised controlled trials in infants under six months of age comparing exclusive breastfeeding versus breastfeeding with any additional food or fluids.

Data collection and analysis

Two authors independently selected the trials; three extracted data and assessed risk of bias.

Main results

We included six trials (814 infants). Two trials in the early days after birth that reported data did not indicate that giving additional fluids was beneficial. For duration of breastfeeding, there was a significant difference favouring exclusive breastfeeding up to and including week 20 (risk ratio (RR) 1.45, 95% confidence interval (CI) 1.05 to 1.99), indicating that supplements may contribute to reducing the duration.

For infant morbidity (three trials), one newborn trial found a statistically, but not clinically, significant difference in temperature at 72 hours (MD 0.10 degrees, 95% CI 0.01 to 0.19), and that serum glucose levels were higher in glucose supplemented infants in the first

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24 hours, though not at 48 hours (MD -0.24mmol/l, 95% CI -0.51 to 0.03). Two trials with four- to six-month-old infants did not indicate any benefit to supplemented infants to 26 weeks nor any risks related to morbidity or weight change.

None of the trials reported on the remaining primary outcomes, infant mortality or physiological jaundice.

Authors' conclusions

We were unable to fully assess the benefits or harms of supplementation or to determine the impact from timing and type of supplementation .

We found no benefit to newborn infants and possible negative effects on the duration of breastfeeding from the brief use of additional water or glucose water. For infants at four to six months, we found no benefit from additional foods nor any risks related to morbidity or weight change. Future studies should examine the longer term effects on infants and mothers, though randomising infants to receive supplements without medical need may be considered unethical.

We found no evidence for disagreement with the recommendation of international health associations that exclusive breastfeeding should be recommended for healthy infants for the first six months.

PLAIN LANGUAGE SUMMARY

Early additional food and fluids for healthy breastfed full-term infants

Human milk naturally provides for growth, protection and development for human babies. It is also important to the health and well-being of the mother. Exclusive breastfeeding is an infant's consumption of human milk with no supplementation of any type, including no water, juice, non-human milk or foods. The effect of early supplementation may include decreased milk production due to reduced removal of milk from the breast, difficulties in developing effective breastfeeding and reduced maternal confidence in the ability to successfully breastfeed with reinforcement of a negative belief that human milk is insufficient for an infant. Despite widespread recommendations supporting exclusive breastfeeding for four, and more recently six months, common practice often does not appear to reflect these recommendations, thus suggesting there are perceived benefits from supplementation. We looked at studies on supplementation with additional fluids in the early weeks or supplementation with the addition of foods at four to six months of age. We identified six randomised controlled studies involving 814 women and their infants that looked at exclusive breastfeeding compared with breastfeeding with additional fluids or foods.

From the trials that we found, for the healthy breastfeeding baby in the first few days after birth, two trials involving 200 mothers found no benefit to newborn infants in giving additional water or glucose water and increased risk of early cessation of breastfeeding from the brief use of additional water or glucose water. For infants receiving supplements of food at four to six months, we did not find sufficiently high-quality data from the two trials identified to indicate any benefit to the infant in giving additional foods nor any risks related to morbidity or weight change.

The trials were reported on between 1982 and 1999. Two were carried out in Honduras and one in each of Spain, Nigeria, US and UK. It may now be considered unethical to conduct a trial in which an infant is randomised to receive supplements solely for the purpose of the trial.

This review did not find any evidence for disagreement with the recommendation of the World Health Organization and other international health associations that as a general policy exclusive breastfeeding, without additional foods or fluids, should be recommended for the first six months after birth.