[Intervention Review]

Restricting oral fluid and food intake during labour

Mandisa Singata[1], Joan Tranmer[2], Gillian ML Gyte[3]

[1]Effective Care Research Unit, University of the Witwatersrand/University of Fort Hare/East London Hospital complex, East London, South Africa. [2]School of Nursing, Queen's University, Kingston, Canada. [3]Cochrane Pregnancy and Childbirth Group, School of Reproductive and Developmental Medicine, Division of Perinatal and Reproductive Medicine, The University of Liverpool, Liverpool, UK

Contact address: Mandisa Singata, Effective Care Research Unit, University of the Witwatersrand/University of Fort Hare/East London Hospital complex, East London, South Africa. msingata@yahoo.com.

Editorial group: Cochrane Pregnancy and Childbirth Group.
Publication status and date: New, published in Issue 1, 2010.
Review content assessed as up-to-date: 30 September 2009.

Citation: Singata M, Tranmer J, Gyte GML. Restricting oral fluid and food intake during labour. *Cochrane Database of Systematic Reviews* 2010, Issue 1. Art. No.: CD003930. DOI: 10.1002/14651858.CD003930.pub2.

Next >

Abstract

Background
Restricting fluids and foods during labour is common practice across many birth settings with some women only being allowed sips of water or ice chips. Restriction of oral intake may be unpleasant for some women, and may adversely influence their experience of labour.

Objectives
To determine the benefits and harms of oral fluid or food restriction during labour.

Search strategy
We searched the Cochrane Pregnancy and Childbirth Group's Trials Register (April 2009).

Selection criteria
Randomised controlled trials (RCTs) and quasi-RCTs of restricting fluids and food for women in labour compared with women free to eat and drink.

Data collection and analysis
Two authors independently assessed the studies for inclusion, assessed risk of bias and carried out data extraction.

Main results
We identified five studies (3130 women). All studies looked at women in active labour and at low risk of potentially requiring a general anaesthetic. One study looked at complete restriction versus giving women the freedom to eat and drink at will; two studies looked at water only versus giving women specific fluids and foods and two studies looked at water only versus giving women carbohydrate drinks.

When comparing any restriction of fluids and food versus women given some nutrition in labour, the meta-analysis was dominated by one study undertaken in a highly medicalised environment. There were no statistically significant differences identified in: caesarean section (average risk ratio (RR) 0.89, 95% confidence interval (CI) 0.63 to 1.25, five studies, 3103 women), operative vaginal

births (average RR 0.98, 95% CI 0.88 to 1.10, five studies, 3103 women) and Apgar scores less than seven at five minutes (average RR 1.43, 95% CI 0.77 to 2.68, three studies, 2574 infants), nor in any of the other outcomes assessed. Women's views were not assessed. The pooled data were insufficient to assess the incidence of Mendelson's syndrome, an extremely rare outcome. Other comparisons showed similar findings, except one study did report a significant increase in caesarean sections for women taking carbohydrate drinks in labour compared with water only, but these results should be interpreted with caution as the sample size was small.

Authors' conclusions

Since the evidence shows no benefits or harms, there is no justification for the restriction of fluids and food in labour for women at low risk of complications. No studies looked specifically at women at increased risk of complications, hence there is no evidence to support restrictions in this group of women. Conflicting evidence on carbohydrate solutions means further studies are needed and it is critical in any future studies to assess women's views.

Plain language summary

Eating and drinking in labour

In some cultures, food and drinks are consumed during labour for nourishment and comfort to help meet the demands of labour. However, in many birth settings, oral intake is restricted in response to work by Mendelson in the 1940s. Mendelson reported that during general anaesthesia, there was an increased risk of the stomach contents entering the lungs. The acid nature of the stomach liquid and the presence of food particles were particularly dangerous, and potentially could lead to severe lung disease or death. Since the 1940s, obstetrical anaesthesia has changed considerably, with better general anaesthetic techniques and a greater use of regional anaesthesia. These advances, and the reports by women that they found the restrictions unpleasant, have led to research looking at these restrictions. In addition, poor nutritional balance may be associated with longer and more painful labours, and fasting does not guarantee an empty stomach or less acidity. This review looked at any restriction of fluids and food in labour compared with women able to eat and drink. The review identified five studies involving 3130 women. Most studies had looked at specific foods being recommended, though one study let women to choose what they wished to eat and drink. The review identified no benefits or harms of restricting foods and fluids during labour in women at low risk of needing anaesthesia. There were no studies identified on women at increased risk of needing anaesthesia. None of the studies looked at women's views of restricting fluids and foods during labour. Thus, given these findings, women should be free to eat and drink in labour, or not, as they wish.

Next >