Midwifery Review: locating evidence

Susan K. Jacobs/Health Sciences Librarian
susan.jacobs@nyu.edu
Where is the evidence?

Eating during labor may not be so bad, study suggests

By CONTESSA BREWER / CBS NEWS / October 25, 2015, 7:29 PM

For years, women have been told it’s dangerous to eat during labor, both for them and their baby. But a new study suggests that may not be true, and that a light meal could be a good thing.

Moms who have been through labor say fasting their way through the ordeal didn’t seem adequate.

Why do a lit search to locate evidence?

- A literature search using specialized databases ensures comprehensive retrieval of best published evidence to answer clinical questions.

- If you are randomly searching google or other meta-tools
  - you may miss best evidence
  - you lack filtering functionality
  - you may retrieve too much, yet miss the most relevant studies
  - you will not always access article full text

- Entering specialized databases via the NYU gateway ensures maximized links to full text subscribed by NYU.
Steps

– Formulate answerable PICO(T) question

– Select a specialized database

– Translate the terms of the question to the controlled vocabulary of the database, when possible; use keyword searching when necessary.
  • Use **AND** to combine terms and narrow a search.
  • Use **OR** to expand with synonyms, related terms.

– Apply **filters**: limits for publication type, year, age group, *methodology*!

– Critical appraisal
Does food or fluid restriction affect the progress of labor in low risk women?
Start with background or pre-aggregated/preappraised evidence
Explore background source material, such as a textbook found in ebrary.
Varney's Midwifery (5th Edition)

by King, Tekoa L.
Brucker, Mary C.
Kriebis, Jan M.

AVAILABILITY

Your institution has access to 1 copy of this book.

Available for Online Reading

199 Pages Remaining to Copy (of 199)
399 Pages Remaining to Print (of 399)

This book is not available for download.

Full Download is not offered for this title.
Meanwhile, you may Read Online to print chapters to PDF.

BIBLIOGRAPHIC INFO

TITLE
Varney's Midwifery (5th Edition)

CONTRIBUTORS
King, Tekoa L.
Brucker, Mary C.
Kriebis, Jan M.

PUBLISHER
Jones & Bartlett Learning

DATE PUBLISHED
October 2013

LANGUAGE
English

PAGES
1330

DOCUMENT TYPE
Book

LC SUBJECT HEADINGS
Gynecologic nursing.
Maternity nursing.
Midwifery.

LC CALL NUMBER
RG950 -- V37 2013eb

DEWEY DECIMAL NUMBER
N/A

PRINT ISBN
9781284025415

EBOOK ISBN
9781284025422

OCLC NUMBER
0

TABLE OF CONTENTS

Title Page
Copyright Page
Dedication
Brief Contents
An example of background information from a Point of Care resource like NRC
Restricting oral fluid and food intake during labour.

Singaa M, Tramner J, Gyte GM.
Effective Care Research Unit, University of the Witwatersrand and University of Fort Hare/East London Hospital complex, East London, South Africa.

Abstract

BACKGROUND: Restricting fluids and foods during labour is commonly practiced 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 METHODS: We searched the Cochrane Pregnancy and Childbirth Group's Trials Register (to 13 May 2013) and the Cochrane Central Register of Controlled Trials (to 13 May 2013).

SELECTION CRITERIA: Randomised controlled trials (RCTs) and quasi-RCTs of restricting fluids and food to women free to eat and drink.

DATA COLLECTION AND ANALYSIS: Two review authors independently assessed the studies for inclusion, assessed risk of bias and extracted data.

MAIN RESULTS: We identified 19 studies of which we included five, involving 3130 women. We excluded eight studies, one because of a lack of data on women free to eat and drink, and five are ongoing studies. All the included studies looked at women in active labour and at low risk of potentially requiring an epidural. One study looked at complete restriction versus giving women the freedom to eat and drink (will; two studies looked at women specific fluids and foods and two studies looked at water only versus giving women carbohydrate drinks. When comparing fluids and food versus women given some nutrition in labour, the meta-analysis was dominated by one study undertaken in a predominantly Chinese environment. There were no statistically significant differences identified in caesarean section (average risk ratio (RR) 0.90, 95% 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), scores less than and at seven minutes (average RR 1.43, 95% CI 0.77 to 2.08, four studies, 2902 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.
Foreground questions are specific to a Problem/Patient/Population AND Intervention (PICO question!)

http://guides.nyu.edu/health
Specialized article databases like PubMed, PsycInfo, CINAHL Plus, and more, are searchable by topic. They index articles from thousands of scholarly journals.

http://guides.nyu.edu/findarticles/health
<table>
<thead>
<tr>
<th>EXAMPLE:</th>
<th>Source of Evidence</th>
<th>Level of Evidence</th>
</tr>
</thead>
</table>
### EXAMPLE:


---

A simple preliminary search using keywords **AND** **Labor** (Eating OR drinking) **AND**
A more advanced search uses the MeSH term “labor, obstetric” and a filter for publication type: Review.
Restricting oral fluid and food intake during labour.

Singaara M, Tranmer J, Gyte GM.

Effective Care Research Unit, University of the Witwatersrand and University of Fort Hare/East London Hospital complex, East London, South Africa.

Abstract

BACKGROUND: Restricting fluids and foods during labour is commonly practiced in 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 who may adversely influence their experience of labour.

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

SEARCH METHODS: We searched the Cochrane Pregnancy and Childbirth Group's Trials Register (to 22 August 2013) and reference lists of retrieved studies.

SELECTION CRITERIA: Randomised controlled trials (RCTs) and quasi-RCTs of restricting fluids and food to women free to eat and drink.

DATA COLLECTION AND ANALYSIS: Two review authors independently assessed the studies for inclusion, assessed risk of bias, and extracted data.

MAIN RESULTS: We identified 19 studies of which we included five, involving 3130 women. We excluded eight studies, one because it was a study of a population already involved in a trial, and five are ongoing studies. All the included studies looked at women in active labour and at low risk of potentially requiring caesarean section. One study looked at complete restriction versus giving women the freedom to eat and drink at will; two studies looked at women receiving specific fluids and foods and two studies looked at water only versus giving women carbohydrate drinks. When comparing fluid and food versus women given some nutrition in labour, the meta-analysis was dominated by one study undertaken in an enriched environment. There were no statistically significant differences identified in: caesarean section (average risk ratio (RR) 0.99 confidence intervals (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), scores less than seven at five minutes (average RR 1.43, 95% CI 0.77 to 2.80, four studies, 2902 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.

Link to the live citation from PubMed@NYU
Notice the MeSH terms and harvest ideas for expanding the search.

Publication Type
- Meta-Analysis
- Research Support, Non-U.S. Gov't
- Review

MeSH Terms
- Beverages/adverse effects
- Cesarean Section/utilization
- Dietary Carbohydrates/administration & dosage
- Dietary Carbohydrates/adverse effects
- Drinking*
- Eating*
- Fasting/adverse effects*
- Female
- Humans
- Labor, Obstetric*
- Pregnancy
- Randomized Controlled Trials as Topic

Link to the live citation from PubMed@NYU
A more advanced search considers synonyms OR alternative terms for one or more of the elements of the search, in this case the intervention.
You could conduct the same search with a different filter for publication type: randomized controlled trial.

- Randomized controlled trial
- Labor, obstetric
- (Eating OR Drinking OR “fluid restriction” OR carbohydrates OR fasting)

**AND**
A simple keyword search in CINAHL

Search Results: 1 - 30 of 104

1. Literature review: Eating and drinking in labour

   (includes abstract) Hunt, Lauren; British Journal of Midwifery, Jul2013; 21(7): 499-502. 4p. (Journal Article - research)
   0969-4900

   The aim of this literature review is to investigate whether women of low-risk status should be denied oral fluids and solids.
   Objective: To improve outcome of mothers and neonates...

   Subjects: Food Intake In Pregnancy; Labor; Fluid Intake In Pregnancy; Intrapartum Care; Female
   Cited References: (25)

2. Effects of eating and drinking in labour on maternal and perinatal outcomes in low-resource settings

   (includes abstract) Senczukow, Rhinah Ashakabo; MIDIRS Midwifery Digest, Dec2014; 24(4): 162-175. 3p. (Journal Article - research)

   The aim of this study was to assess the impact of eating and drinking during labour on maternal and perinatal outcomes in low-resource settings.

   Subjects: Eating During Pregnancy; Labor; Maternal Health; Perinatal Health; Low-Resourc...
A simple keyword search in CINAHL
A better search seeks the correct subject term.
Using the MH subject labor retrieves more focused articles. “Exploding” includes the indented (narrower) terms.
1. Literature review: **Eating and drinking** in labour.

(includes abstract) Hunt, Lauren; British Journal of Midwifery, Jul 2013; 21(0969-4900)

The aim of this literature review is to investigate whether women of low-risk Objective: To improve outcome of mothers and neonatal...

**Subjects:** Food Intake In Pregnancy; Labor; Fluid Intake In Pregnancy; Int
Use filters on the left menu.

More about filtering in CINAHL: http://guides.nyu.edu/filtering#CINAHL
In this sample CINAHL result, notice the subject terms.
Research question

Select database

Initial search with keywords

Translate terms

View initial results

Select relevant articles

Conduct revised search; view related records

Revise/expand search strategy

Remember that the search process is iterative!

More results

Results
1. Do exercise programs reduce the incidence of falls in the aged population?

2. Is the use of a checklist an effective intervention for reducing errors for patients in operating rooms?
Steps

– Formulate answerable PICO(T) question

– Select a specialized database

– Translate the terms of the question into the controlled vocabulary of the database, and use keyword searching when necessary.
  
  • Use **AND** to combine terms and narrow a search.
  
  • Use **OR** to expand with synonyms, related terms.

– Apply filters: limits for publication type, year, age group, methodology!

– Critical appraisal

Don’t forget critical appraisal of results. 
[http://guides.nyu.edu/appraisal](http://guides.nyu.edu/appraisal)
Critical appraisal tools:
http://guides.nyu.edu/appraisal

Health (Nursing, Medicine, Allied Health): Critical Appraisal
Guide to locating health evidence. View the EBP "pyramid" and link to tools for locating relevant research.

Critical Appraisal Resources

- Critical Appraisal worksheets from the CEBM (Centre for Evidence Based Medicine)(Oxford)
- Systematic Review Critical Appraisal Sheet
- Diagnostic Critical Appraisal Sheet
- RCT Critical Appraisal Sheet
- Prognosis Critical Appraisal Sheet
- PICO Critical Appraisal Sheet (PDF)
- PICO Critical Appraisal Sheet (MS-Word)
- Educational Prescription Critical Appraisal Sheet (PDF)

- AGREE II
  Assessment of practice guidelines.