



Let low-risk moms eat during labor?

Allowing low-risk pregnant women to eat less restrictive diets during labor may not only make them happier, but may shorten labor, too.

PRACTICE CHANGER

Allowing low-risk patients planning for a vaginal delivery less restrictive diets during labor does not seem to increase the risk of aspiration or other harms and may shorten labor.¹

STRENGTH OF RECOMMENDATION

A: Based on a meta-analysis of 10 randomized controlled trials (RCTs) in tertiary hospitals.

Ciardulli A, Saccone G, Anastasio H, et al. Less-restrictive food intake during labor in low-risk singleton pregnancies: a systematic review and meta-analysis. *Obstet Gynecol.* 2017;129:473-480.

ILLUSTRATIVE CASE

A 23-year-old nulliparous female at term with an uncomplicated pregnancy presents to labor and delivery. She reports regular contractions for the last several hours and is admitted in labor for an anticipated vaginal delivery. She has not had anything to eat or drink for the last 3 hours and says she's hungry.

What type of diet should you order for this patient? Should you place any restrictions in the diet order?

Since the first reports of Mendelson Syndrome (aspiration during general anesthesia) in the early 1940s,² many health care providers managing laboring women restrict their diets to clear liquids or less with little evidence to support the decision. In a recent survey of Canadian hospitals, for example, 51% of laboring women who did not receive an epidural during the active phase of labor were placed on restricted

diets of only clear fluids and/or ice chips; this number rose to 83% for women who did receive an epidural.³

Dietary restrictions continue to be enforced despite the fact that only about 5% of obstetric patients require general anesthesia.¹ In a study of 172,334 patients ≥18 years of age in the general population undergoing a total of 215,488 emergency or elective surgeries with general anesthesia, the risk of aspiration was 1:895 and 1:3886, respectively.⁴ Of the 66 patients who aspirated, 42 had no respiratory sequelae.

Similarly, Robinson et al noted that anesthesia-associated aspiration fatalities have been much lower in more recent studies than in historical ones—approximately 1 in 350,000 anesthesia events compared with 1 in 45,000 to 240,000—and are more commonly observed during intubation for emergency surgery.⁵

The current American College of Obstetricians and Gynecologists guidance is to restrict oral intake to clear liquids during labor for low-risk patients, with further restriction for those at increased risk for aspiration.⁶ The meta-analysis described here looked at the risks and benefits of a less restrictive diet during labor.

STUDY SUMMARY

Meta-analysis finds not one case of aspiration

This meta-analysis of 10 RCTs, including 3982 laboring women, analyzed the effect of food

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Dietary restrictions during labor for women at low risk of complications/surgery are not justified based on current data.

intake on labor and the risks and benefits associated with less restrictive diets for low-risk women in labor.¹ Women were included in the trials if they had singleton pregnancies with cephalic presentation at the time of delivery. The women had varying cervical dilation at the time of presentation. Seven of 10 studies involved women with a gestational age ≥ 37 weeks, 2 studies set the gestational age threshold at 36 weeks, and one study included women with a gestational age ≥ 30 weeks.

In the intervention groups, the authors studied varying degrees of diets and/or intakes, ranging from oral carbohydrate solutions to low-fat food to a completely unrestricted diet. One study accounted for 61% of the patients in this review and compared intake of low-fat foods to ice chips, water, or sips of water until delivery. The primary outcome of the meta-analysis was duration of labor.

Results. The authors of the meta-analysis found that the patients in the intervention groups, compared with the control groups, had a shorter mean duration of labor by 16 minutes (95% confidence interval [CI], -25 to -7). Apgar scores and the rates of Cesarean delivery, operative vaginal delivery, epidural analgesia, and admission to the neonatal intensive care unit were similar in the intervention and control groups. Maternal vomiting was also similar: 37.6% in the intervention group and 36.5% in the control group (relative risk=1.00; 95% CI, 0.81-1.23). None of the 3982 patients experienced aspiration pneumonia or pneumonitis.¹

WHAT'S NEW

Restricting diets during labor is outdated

For years, women's diets have been restricted during labor without sufficient evidence to support the practice. In this systematic review and meta-analysis, Ciardulli and colleagues did not find a single case of aspiration pneumonitis—the outcome on which the rationale for restricting diets during labor is based. A 2013 Cochrane review by Singata et al also found no harm in less restrictive diets for low-risk women in labor.⁷ Ciardulli et al concluded

that dietary restrictions for women at low risk of complications/surgery during labor are not justified based on current data.

CAVEATS

Underpowered and missing information

This meta-analysis found no occurrences of aspiration pneumonia or pneumonitis; however, it was underpowered to identify these rare complications. This is partially due to the unusual need for general anesthesia in low-risk patients, as noted earlier. Data on the total number of women who underwent general anesthesia in the current review were limited, as not every study within the meta-analysis included this information.

CHALLENGES TO IMPLEMENTATION

Stemming the cultural tide

One challenge to implementation is changing the culture of practice regarding low-risk pregnant women in labor, as well as the opinions of other health care providers and hospital policies that oppose less restrictive oral intake during labor. **JFP**

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