



Evidence that Empowers!

By Rebecca Dekker, PhD, RN of EvidenceBasedBirth.com

Question: Are routine IV fluids necessary during labor when people are free to drink?

Answer: No. When laboring people are free to drink, the use of IV fluids can be guided by each person's unique situation.

Evidence: Only three trials have compared IV fluids to no IV fluids among laboring people who are free to drink oral fluids. Two of these studies were combined in a review, showing that IV fluids + oral fluids led to shorter labors (by 30 minutes) compared to oral fluids alone. The authors concluded that this evidence does not justify routine administration of IV fluids.

A third study compared three groups: 1) oral fluids + IV fluids, 2) oral fluids + IV fluids containing dextrose (a sugar), and 3) oral fluids alone. The researchers found those who received IV fluids with dextrose had shorter labors by nearly 6 hours. It's possible that shorter labors could also occur if laboring people are encouraged to drink oral fluids with carbohydrates in sufficient amounts—but more research is needed.²

Question: Are routine IV fluids necessary during labor when people are not allowed to drink?

Answer: Medical organizations do not recommend restricting low-risk people to ice chips or sips of water during labor, including people with epidurals. This means that hospitals with policies that forbid drinking are not staying up-to-date with the guidelines. Policies of “nothing by mouth” or “ice chips only” can be especially harmful when IV fluids are given at a lower rate of 125 mL/hr.

Evidence: In 2017, researchers combined the evidence from seven trials with a total of 1,215 people; most were not allowed to drink oral fluids at all. They found that people who received IV fluids at 125 mL/hr versus 250 mL/hr had longer labors by about one hour and a 30% higher risk of Cesarean.³ These findings suggest that people who are not allowed to drink may benefit from higher rates of IV fluids, possibly by reducing the rate of Cesareans from Failure to Progress. However, these drinking restrictions are not evidence-based

in the first place. To learn more about restrictions on eating and drinking during labor, visit evidencebasedbirth.com/eating.

Question: What are the possible side effects from IV fluids during labor?

Answer: Higher amounts of IV fluids can lead to an artificial drop in the newborn's weight and painful breast/chest swelling, both of which can harm breast/chestfeeding.

Evidence: In 2012, researchers found that when people received >2,500 mLs of IV fluid during labor (more than 1 large bag), their babies were more likely to lose weight after birth.⁴ These babies were born with excess fluid in their bodies, leading them to urinate more in the first day of life. Concerns about excess weight loss can cause anxiety for new parents and lead to supplementation with formula, which in turn can reduce their milk supply. Researchers suggest that if large amounts of IV fluids are given, then providers can use the newborn's 24-hour weight as a baseline, or use a 10% cut-off to define weight loss (instead of the 7% cut-off defined by the American Academy of Pediatrics.)

Another small study found that people who received higher amounts of IV fluids during labor reported more postpartum breast/chest tenderness and firmness when palpated (touched) by the researcher.⁵ More research is needed on the side effects of IV fluids during labor.

Disclaimer & Copyright:

This information does not substitute for a care provider-patient relationship and should not be relied on as personal medical advice. Any information should not be acted upon without professional input from one's own healthcare provider. © 2022. All rights reserved. Evidence Based Birth[®] is a registered trademark. Permission is granted to reproduce this handout in print with complete credit given to the author. Handouts may be distributed freely in print but not sold. This PDF may not be posted online.

“ Staying hydrated can shorten labor, so encouragement should be given to drink sufficient oral fluids. IV fluids can also be used as needed.”

1. Dawood, F., et al. (2013). “Intravenous fluids for reducing the duration of labour in low risk nulliparous women.” Cochrane Database Syst Rev(6): CD007715.
2. Ahadi Yulghunlu, F., et al. (2020). “The effects of intravenous dextrose 5%, Ringer's solution, and oral intake on the duration of labor stages in nulliparous women: a double-blind, randomized, controlled trial.” J Matern Fetal Neonatal Med 33(2):289-296.
3. Ehsanipoor, R. M., et al. (2017). “Intravenous fluid rate for reduction of cesarean delivery rate in nulliparous women: a systematic review and meta-analysis.” Acta Obstet Gynecol Scand. Epub ahead of print.
4. Watson, J., et al. (2012). “A randomized controlled trial of the effect of intrapartum intravenous fluid management on breastfed newborn weight loss.” J Obstet Gynecol Neonatal Nurs 41(1): 24-32.
5. Kujawa-Myles, S., et al. (2015). “Maternal intravenous fluids and postpartum breast changes: a pilot observational study.” Int Breastfeed J 10: 18.

