



Evidence on: IV Fluids during Labor

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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 two trials have compared IV fluids to no IV fluids among laboring people who are free to drink oral fluids. When these two studies were combined in a Cochrane review, researchers found that people who received IV fluids plus oral fluids had shorter labors (by about 30 minutes) compared to those who drank oral fluids alone. The authors concluded that the evidence does not justify routine administration of IV fluids.¹

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.² 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 ebirth.com/eating.

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

Answer: High amounts of IV fluids during labor can lead to an artificial drop in the newborn's weight and possible painful breast swelling, both of which can harm breastfeeding.

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.³ 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 the mother's supply. Researchers suggest that if mothers receive large amounts of IV fluids, providers could 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 post-partum breast tenderness and had more breast firmness when palpated (touched) by the researcher.⁴ More research is needed on the maternal side effects of IV fluids during labor.

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“The use of IV fluids in labor can be guided by each person's unique situation. Examples of medical reasons for IV fluids include nausea, vomiting, maternal exhaustion, or prolonged labor.”

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. 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.
3. 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.
4. Kujawa-Myles, S., et al. (2015). "Maternal intravenous fluids and postpartum breast changes: a pilot observational study." Int Breastfeed J 10: 18.