Contested Data	Source	Discussion
"10% of vaginally-delivered and 25% of cesarean-delivered exclusively breastfed babies lose excessive weight in the first days of life." Quote from article: "Almost 5% of vaginally delivered newborns and almost 10% of those delivered by cesarean had lost >10% of their birth weight by 48 hours. By 72 hours of age, >25% of newborns delivered by cesarean had lost > 10% of their birth weight."	Valerie J. Flaherman, MD, MPH, et al., Early Weight Loss Nomograms for Exclusively Breastfed Newborns, Pediatrics, 2015 Jan; 135(1): e16–e23	Looking at the weight loss nomogram of vaginally delivered newborns, one can easily confirm that at 72 hrs of life, for vaginally-delivered newborns, > 10% lost greater than 10% of their birth. The text says that 5% lost 10% by 48 hours but makes no mention that at 72 hrs of life, 10% lost > 10% of their birth. See Figure 1 below. The ACOG representatives assume that 10% weight loss is normal, expected and therefore "safe" but the literature shows that, as the study authors say, ">10% weight loss has been associated with increased risk of hyperbilirubinemic and hypernatremic dehydration," which are known causes of mild to severe brain injury and developmental disability. In fact, 95% of hypernatremia can occur by 7% weight loss.
"10-18% of exclusively breastfed babies develop starvation jaundice from insufficient milk intake." Quote form protocol: "As many as 10-18% of exclusively breastfed U.S. newborns lose more than 10% of birth weight."	The Academy of Breastfeeding Medicine's Jaundice Protocol	Weight loss and hyperbilirubinemia are directly correlated events. Multiple studies show that bilirubin levels are *correlated* with increased newborn weight loss. Per the ABM, "the majority of reports indicate increased serum bilirubin concentrations and greater weight loss in breastfed infants." The pathophysiology of hyperbilirubinemia is well-established and bilirubin elimination relies on the volume of milk a newborn receives. The less milk, the greater weight loss and the faster bilirubin accumulates, which is the reason why jaundice associated with excessive weight loss is called "starvation jaundice." See talk by BFUSA medical director, Dr. Lawrence Gartner. The assumption is made that 10% weight is not excessive. A significant portion of newborns can develop hypernatremia (>5%) and hyperbilirubinemia by 10% weight loss.
"10% of well-monitored exclusively breastfed babies undergoing the WHO's Baby-Friendly Hospital Initiative protocol develop hypoglycemia of less the [sic] 40 mg/dL within the first 48 hours. This incidence is reported as 23% in babies born to first-time mothers."	Purnima Samayam, et al., Study of Asymptomatic Hypoglycemia in Full Term Exclusively Breastfed Neonates in First 48 Hours of Life, J Clin Diagn	The ACOG authors suggest that the episodes of hypoglycemia were due to delayed first feeding of >1 hr. While a higher proportion of hypoglycemia occurred in newborns with delayed first feeding (16.7% vs. 7.9%), the majority of hypoglycemia cases (6 out of 10) occurred in newborns fed within the 1st hour. So for the majority of hypoglycemia EBF newborns, hypoglycemia is caused by baseline caloric depletion at birth and insufficient caloric yield of

"These levels of hypoglycemia are low enough to cause long-term cognitive impairment."	Res. 2015 Sep; 9(9): SC07–SC10	colostrum. There is no evidence that colostrum is sufficient to prevent hypoglycemia for all newborns as a typical 5 mL colostrum feeding provides 3 Calories while a 3 kg newborn burns 12 Cal/hr. Furthermore, the study clearly shows that for 10% of EBF newborns, exclusive colostrum feeding is *not* sufficient to prevent hypoglycemia. Newer data on transitional asymptomatic hypoglycemia now shows that glucose levels of < 40 mg/dL is associated with long-term declines in academic performance, namely a 50% reduction in the ability to pass 4th grade proficiency tests in literacy and math. There has in fact never been any long-term study confirming that early transitional hypoglycemia, even when self-limited and asymptomatic, is neurologically benign. Newer data has debunked previously held beliefs that transitional hypoglycemia has no effect on brain development.
"Cognitive impairment can have life-long effects as evidenced by a study of 1395 newborns showing that newborns who develop transient hypoglycemia of less than 40 mg/dL had a 50% reduction in passing their fourth-grade proficiency test in literacy and math. Even a glucose less than 45 mg/dL resulted in a 38% reduction in passing the literacy test." Quote from article:"Early transient newborn hypoglycemia was associated with lower achievement test scores at age 10 years. Given that our findings are serious and contrary to expert opinion, the results need to be validated in other populations before universal newborn glucose screening should be adopted."	Kaiser, J.R., et al., Association Between Transient Newborn Hypoglycemia and Fourth-Grade Achievement Test Proficiency: A Population-Based Study. 2015 JAMA Pediatr 169, 913–921.	Evidence weighs far greater than expert opinion and when the outcomes are serious and permanent, like 50% reductions in 4th grade proficiency in literacy and math, requiring more research to confirm the current serious findings requires potentially exposing hundreds if not thousands of newborns to permanently reduced academic potential. Unless ACOG proposes we expose newborns to permanently impaired brain development in order to obtain additional data before taking action, we have an obligation as a medical community to protect newborns from transient hypoglycemia of < 45 mg/dL until solid evidence of safety emerges. The data showed that the majority of hypoglycemia cases were found in healthy, term, appropriately-sized newborns. The data did not show that the cases of lower academic achievement were restricted to newborns who were premature or had other health complications. There is in fact no evidence that the brains of healthy, term newborns are immune from hypoglycemic brain injury and in fact evidence reported in

		the literature that they can develop extensive brain injury from starvation-related hypoglycemia when insufficiently fed through exclusive breastfeeding.
“In a study of 280 mother-baby dyads, 22% of motivated mothers intending to exclusively breastfeed who received close lactation support experienced delayed onset of copious milk production which put her child at a 7-fold increased risk of excessive weight loss greater than 10%. This means more than 1 in 5 newborns are at risk of starvation-related complications if exclusively breastfed from birth.”	Dewey KG, et al., Risk factors for suboptimal infant breastfeeding behavior, delayed onset of lactation, and excess neonatal weight loss, Pediatrics, 2003 Sep;112(3 Pt 1):607-19.	Delayed lactogenesis II (DLII) is a dangerous and potentially lethal entity to a newborn born to a mother who has been trained to avoid supplementation to achieve exclusive breastfeeding. DLII requires a EBF newborn to experience the fasting conditions of exclusive colostrum feeding for > 72 hours. A prevalence of 22% of DLII in a population of motivated and lactation-supported mothers, which will commonly include older and highly educated mothers, is a very serious finding given the lack of patient education on the serious nature of excessive weight loss in EBF newborns. The AAP Breastfeeding guidelines recommend no greater than 7% weight loss. 7% weight loss increases the risk of hypernatremic and hyperbilirubinemic dehydration. If 22% of EBF mothers develop DLII, then 22% of EBF newborns are therefore *at risk* for starvation-related complications that DLII causes. A high proportion of motivated EBF mothers *are* older and highly educated, so the estimated incidence *is* relevant. We feel that it would be irresponsible for health professionals to dismiss such findings in order to promote exclusive breastfeeding at the expense of newborn safety.
”Exclusive breastfeeding at discharge has been associated with an 11-fold higher risk of rehospitalization for underfeeding and dehydration.”	Escobar, G. J. *et al.* Rehospitalization for neonatal dehydration: a nested case-control study. *Arch Pediatr Adolesc Med* **156,** 155−161 (2002).	This data was not mentioned or contested by the ACOG authors.

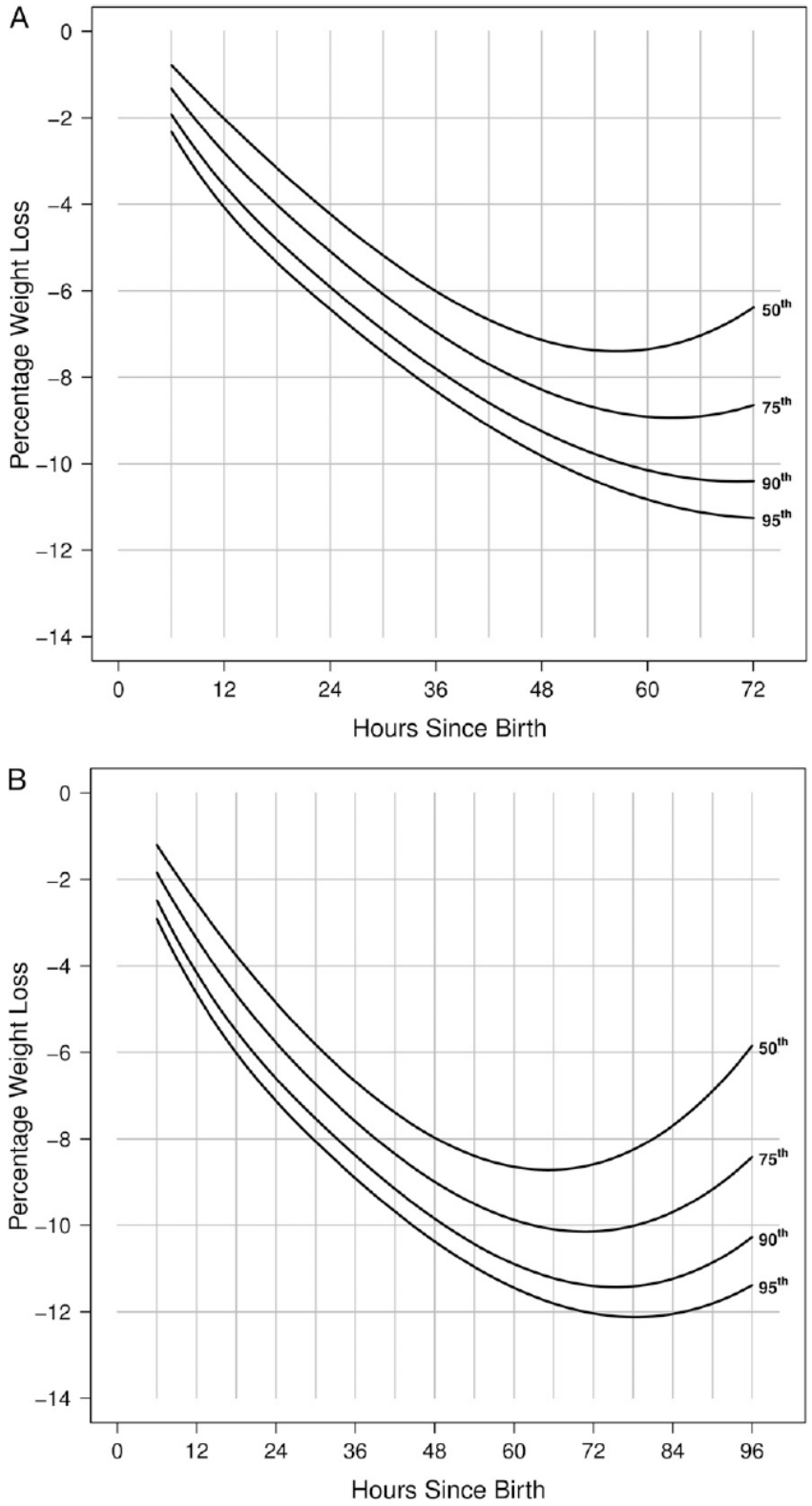

FIGURE 2

A, Estimated percentile curves of percent weight loss by time after birth for vaginal deliveries. B, Estimated percentile curves of percent weight loss by time after birth for Cesarean deliveries.