

FROM THE FAMILY PRACTICE INQUIRIES NETWORK

# Should jaundiced infants be breastfed?

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## ■ EVIDENCE-BASED ANSWER

No studies have demonstrated that cessation of breastfeeding in jaundiced infants improves clinical outcomes, although this has only been studied in term infants. Temporarily disrupting or supplementing breastfeeding in jaundiced infants is associated with premature cessation of breastfeeding (strength of recommendation [SOR]: **B**, based on a nonrandomized, nonblinded trial). Jaundiced breastfed term infants have no significant difference in length of phototherapy, and no increased rate of exchange transfusion or kernicterus compared with jaundiced bottle-fed term infants (SOR: **B**, based on a low-quality randomized controlled trial and a prospective cohort study). In light of the association of breastfeeding with improved health outcomes,<sup>1</sup> mothers of jaundiced term infants should be encouraged to continue breastfeed.

## ■ EVIDENCE SUMMARY

Although breastfeeding jaundice is a benign entity, other risk factors for bilirubin toxicity can coexist. These include jaundice in the first day of life, previously jaundiced sibling, early gestational age, significant bruising or cephalohematoma, Rh and ABO incompatibility, G6PD deficiency, and elevated hour-specific serum or transcutaneous bilirubin levels.<sup>2,3</sup>

Late initiation of breastfeeding and temporary cessation or supplementation of breastfeeding increase the likelihood of premature breastfeeding termination.<sup>4</sup> In a prospective cohort study of 138 breastfed term infants, more than twice as many mothers of jaundiced infants had stopped breastfeeding compared with mothers of nonjaundiced infants, at the end of 1 month (42% vs 19%; number needed to harm [NNH]=4;  $P<.01$ ). In addition, 64% of the jaundiced infants whose nursing had been interrupted in the hospital had stopped breastfeeding by 1 month, compared with only 36% of those who had no interruption (relative risk [RR]=1.8;  $P<.05$ ; NNH=4).<sup>5</sup>

Whether they require phototherapy or not, continuing breastfeeding in jaundiced infants is not associated with adverse outcomes. In a prospective cohort study of 163 healthy, jaundiced newborn infants undergoing phototherapy (total serum bilirubin  $\geq 17$  mg/dL), exclusively breastfed infants had slower response to phototherapy in the first 24 hours than formula-fed or formula-supplemented infants (bilirubin decreases of 17.1% vs 18% and 22.9%, respectively;  $P=.03$ ). However, there were no significant differences in total length of phototherapy among the 3 groups (phototherapy time of 64.5 hours vs 54.1 hours and 54.9 hours, respectively;  $P=.06$ ).<sup>6</sup>

In a randomized, nonblinded clinical trial, 125 jaundiced breastfed newborns (total serum bilirubin level of  $\geq 17$  mg/dL) were assigned to 4 treatment groups: (1) continue breastfeeding and observe; (2) discontinue breastfeeding, substitute with formula; (3) discontinue breastfeeding, substitute with formula, and administer phototherapy; and (4) continue breastfeeding, administer phototherapy. The study did not find a clinically significant difference in serum bilirubin reduction to normal levels at 48 hours between breastfed and bottle-fed groups undergoing phototherapy (RR=1.07; 95% confidence interval [CI], 0.6–1.92;  $P=.818$ ), or between breastfed and bottle-fed groups who did not have phototherapy (RR not calculated;  $P=.051$ ). No patient required exchange transfusion, and in no case did total serum bilirubin exceed 23 mg/dL.<sup>7</sup>

## ■ RECOMMENDATIONS FROM OTHERS

The American Academy of Pediatrics (AAP) has reported numerous positive health outcomes in infants who are breastfed, including reduced incidence and less-severe diarrhea; lower incidence of otitis media, fewer respiratory infections; and lower incidence of bacteremia, bacterial meningitis, botulism, urinary tract infections and necrotizing enterocolitis.

In addition, they reported association between breastfeeding and enhanced cognitive development; and decreased incidence in sudden infant death syndrome, insulin-dependent diabetes mellitus, atopy, and inflammatory bowel diseases. They noted maternal benefits including less postpartum bleeding and lactational amenorrhea; more rapid postpartum weight loss and improved bone remineralization; and reduced risk of ovarian cancer and premenopausal breast cancer.<sup>1</sup>

The AAP discourages the termination of breastfeeding in jaundiced healthy term newborns and encourages continued and frequent breastfeeding (at least 8 to 10 times every 24 hours), encouraging physician's judgment and patient's preferences to determine final treatment options for breastfeeding jaundiced newborns.<sup>2</sup>

### CLINICAL COMMENTARY

## Reassure mothers to prevent cessation of breastfeeding

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Breast milk jaundice occurs with such frequency that careful anticipatory guidance provided during later pregnancy is a physician's time well spent. Education of both prospective parents and other potentially influential family members in attendance during a prenatal visit is wise.

In practice, I have found the greatest challenge is providing enough support and encouragement for the nursing mother to counterbalance the suggestions of well-meaning friends and family that she stop breastfeeding altogether. The only treatment generally required is an increase in the frequency of feedings and up to 12 weeks time for all to resolve.

## REFERENCES

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