

Supporting Evidence for Maternity Practices in Infant Nutrition and Care (mPINC)

CDC calculates mPINC scores for participating hospitals to indicate their overall level of maternity care practices and policies that support optimal infant feeding. Scoring of practices and policies is consistent with recommendations from national and international experts in infant feeding within maternity care settings and supported by evidence from peer-reviewed research.

Maternity Care Practices Supportive of Breastfeeding		
Rationale		
Results from systematic reviews and meta-analyses show that maternity care practices supportive of breastfeeding, as demonstrated by adherence to the Baby-Friendly Hospital Initiative's Ten Steps for Successful Breastfeeding (Ten Steps), are associated with improved breastfeeding outcomes. The Ten Steps are associated with improved breastfeeding initiation, breastfeeding exclusivity, and breastfeeding duration. ¹⁻⁴		
Results also show a dose response relationship between the number of Baby-Friendly practices experienced and the likelihood for improved breastfeeding outcomes, indicating that the probability of improving breastfeeding outcomes increases with a mother and infant from exposure to the Ten Steps initiative. ¹		
Baby-Friendly practices may also help to decrease racial and ethnic differences in breastfeeding outcomes. ⁵		
Adherence to the Ten Steps may not significantly increase hospital birth costs. ^{6,7}		
Immediate Postpartum Care		
Measure	Explanation	Rationale
Immediate skin-to-skin contact	After vaginal delivery, how many newborns remain in uninterrupted skin-to-skin contact with their mothers immediately after birth <ul style="list-style-type: none"> If breastfeeding, until the first breastfeeding is completed? If not breastfeeding, for at least one hour? 	Skin-to-skin contact can be implemented for all healthy term newborns, regardless of feeding method, immediately after birth. ⁸⁻¹⁵ Skin-to-skin contact improves breastfeeding outcomes ¹⁴⁻¹⁵ and increases infant cardio-respiratory stability and blood glucose levels. ¹⁴ Skin-to-skin contact may also improve mother-infant bonding ¹⁵ and infant thermoregulation ¹⁵ and decrease infant crying ¹⁴ and pain response. ¹⁵
Immediate skin-to-skin contact	After Cesarean-delivery, how many newborns remain in uninterrupted skin-to-skin contact with their mothers as soon as the mother is responsive and alert <ul style="list-style-type: none"> If breastfeeding, until the first breastfeeding is completed? If not breastfeeding, for at least one hour? 	Skin-to-skin contact can be safely implemented immediately following cesarean-delivery as soon as the mother is responsive and alert. ^{10,12,13,16} Skin-to-skin contact after cesarean-deliveries improves breastfeeding outcomes ¹⁴⁻¹⁷ and may also improve mother-infant bonding, maternal pain and anxiety, and maternal and infant stabilization. ¹⁶
Transition	How many vaginally-delivered newborns are separated from their mothers before starting rooming-in?	Separation before rooming in is unnecessary for stable infants. All routine procedures, assessments, screenings, immunizations, and laboratory draws can be performed during skin-to-skin contact or at the mother's bedside. ¹⁰⁻¹² Early mother-infant separation may lead to poorer mother-infant interaction during breastfeeding ¹⁸ and could affect early initiation of breastfeeding. ¹⁹
Monitoring following birth	How many newborns receive continuous observed monitoring throughout the first 2 hours immediately following birth?	Continuous monitoring of newborn breathing, activity, color, tone, and position may improve safety during skin-to-skin contact by averting obstruction of breathing and events leading to sudden unexpected postnatal collapse. ^{10,12}
Rooming-In		
Measure	Explanation	Rationale
Rooming-in	What percent of newborns stay in the room with their mothers for at least 24 hours per day (not including those separated for medical reasons)?	Continuous rooming-in allows mothers to learn to recognize and respond to their infants' feeding cues. ^{8,10,13} Rooming-in may improve early exclusive breastfeeding, ²⁰ reduce infant stress, ²¹ and increase mother-infant bonding. ¹⁸
Mother-infant separation	Where are newborns usually located during each of the following situations?	All routine procedures, assessments, screenings, immunizations, and laboratory draws can be performed during skin-to-skin contact or at the

	<ul style="list-style-type: none"> • Pediatric exams/rounds • Hearing screening • Pulse oximetry screening • Routine labs/blood draws/injections • Newborn bath. 	mother's bedside to minimize mother-infant separation. ¹⁰⁻¹² Early separation may interfere with mother-infant interaction during breastfeeding and lead to poorer mother-infant interaction during breastfeeding. ¹⁸
Rooming-in safety	Does your hospital have a protocol that requires frequent observations of high-risk mother-infant dyads by nurses to ensure safety of the infant while they are together?	To increase safety during rooming-in, it is important for health care providers to monitor mother-infant dyads according to their risk assessment. ^{10,12} Assessment tools to help facilitate safety are available. ²²

Feeding Practices

Measure	Explanation	Rationale
Formula feeding of breastfed infants	What percent of healthy, term breastfed newborns are fed infant formula?	Formula supplementation for healthy term newborns is not recommended unless medically indicated. ^{8-9,13,23-24} Early supplementation with formula is associated with poorer breastfeeding outcomes. ²⁵⁻³⁰
Glucose monitoring	Does your hospital perform routine blood glucose monitoring of full-term healthy newborns who are NOT at risk for hypoglycemia?	Exclusive breast milk feeding is sufficient to meet the nutritional and metabolic needs of most healthy, full-term newborns. ^{24,31} Transiently low blood glucose levels are common after birth as newborns adapt to their postnatal environment. ^{24,32} Routine blood glucose monitoring of healthy, full-term newborns who are not at risk for hypoglycemia is unnecessary, may hinder the successful establishment of breastfeeding, and is not recommended. ^{24,31-33} Routine glucose monitoring should only be performed on infants at increased risk of developing hypoglycemia and those with clinical signs of hypoglycemia. ^{24,32}
Formula counseling for breastfeeding mothers	When breastfeeding mothers request infant formula, how often do staff counsel them about possible consequences of their infant and the success of breastfeeding?	Counseling breastfeeding mothers about the possible consequences of introducing infant formula gives them information to make an informed decision. ^{12-13,23} Early supplementation with formula is associated with poorer breastfeeding outcomes. ²⁵⁻²⁸

Feeding Education and Support

Measure	Explanation	Rationale
Formula preparation and feeding techniques	Among mothers whose newborns are fed any formula, how many are taught <ul style="list-style-type: none"> • appropriate formula feeding techniques and • how to safely prepare and feed formula? 	For mothers who formula feed, it is important they have information on safe preparation, feeding, handling, and storage of infant formula. ¹² Many mothers do not follow safe formula preparation practices. ³⁴ Infant formula is perishable and powdered infant formula can be contaminated with pathogens that can cause infections. ³⁵⁻³⁶ Bottles and nipples can also become contaminated when improperly cleaned. ³⁵⁻³⁷ Over and under-diluted formula can result in unmet nutritional needs and other infant health problems. ³⁵ Correct preparation and handling of formula reduce the risk of illness and other health problems. ³⁵⁻³⁷
Feeding cues and pacifiers	How many breastfeeding mothers are taught or shown how to: <ul style="list-style-type: none"> • Recognize and respond to their newborn's feeding cues? • Breastfeed as often and as long as their newborn wants without restrictions? • Understand the use and risks of artificial nipples and pacifiers, including delaying pacifier use until breastfeeding is well-established? 	It is important that breastfeeding mothers are educated on skills and strategies that promote successful breastfeeding and are offered support to help facilitate successful breastfeeding. ¹¹⁻¹³ Breastfeeding education and support improve breastfeeding outcomes. ³⁸⁻³⁹ Effective breastfeeding relies on feeding in direct response to specific infant cues rather than scheduled frequency or duration of feedings. ⁴⁰ Artificial nipples and pacifiers may decrease breastfeeding duration and exclusivity. ⁴¹⁻⁴²
Identify/solve breastfeeding problems	How many breastfeeding mothers are taught or shown how to: <ul style="list-style-type: none"> • Position and latch their newborn for breastfeeding? 	It is important that breastfeeding mothers are educated on skills and strategies that promote successful breastfeeding and are offered support to help facilitate successful breastfeeding. ¹¹⁻¹³ Breastfeeding education

		and support improve breastfeeding outcomes. ^{38,39} Improper positioning and latching may contribute to breastfeeding cessation and
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	<ul style="list-style-type: none"> Assess effective breastfeeding by observing their newborn's latch and the presence of audible swallowing? Assess effective breastfeeding by observing their newborn's elimination patterns (i.e., urine and stool output and stool character)? Hand express their breast milk? 	supplementation. ⁴³ Newborn elimination patterns can provide indication that the infant is getting sufficient milk. ⁴⁴ Hand expression instruction may help mothers self-manage engorgement-related pain. ⁴⁵
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Discharge Support

Measure	Explanation	Rationale
Pre-discharge criteria	Do your discharge criteria for breastfeeding newborns require direct observation of at least one effective feeding at the breast within the 8 hours prior to discharge?	To help facilitate successful breastfeeding, it is important that trained health care providers observe and document at least one feed every shift and during each contact with the mother, whenever possible, until discharge. Positioning, latching, milk transfer, frequency and characteristics of the infant's output, jaundice, infant weight, and feeding problems are recorded in the clinical history. Healthcare providers will address any breastfeeding problem, and referrals will be made to a lactation specialist whenever needed. To prevent early breastfeeding cessation, management of the most common breastfeeding difficulties is discussed with every breastfeeding mother before discharge. ¹²
Post-discharge follow-up visit	Do your discharge criteria for breastfeeding newborns require scheduling of the first follow-up visit with a health care provider?	A follow-up appointment with a health care provider 48 to 72 hours after discharge is important to observe feeding and assess an infant's weight and general health and hydration. ^{9,12,46}
Post-discharge breastfeeding support	What discharge support does your hospital routinely provide to breastfeeding mothers? <ul style="list-style-type: none"> In-person follow-up visits/appointments for lactation support? Personalized phone calls to mothers to ask about breastfeeding (not automated calls)? Formalized, coordinated referrals to lactation support providers in the community when additional support or follow-up is needed? 	At discharge, hospitals can schedule follow-up appointments for lactation support and provide referrals to lactation providers in the community when needed. ¹²⁻¹³ Breastfeeding support that includes lactation specialists is associated with improved breastfeeding outcomes. ⁴⁷ Telephone support for mothers during the early postpartum period is associated with improved breastfeeding outcomes. ⁴⁸
Distribution of infant formula or formula-related supplies/coupons as gifts	Does your hospital give mothers any of the following items free of charge, as gifts or free samples (not including items prescribed as part of medical care)? <ul style="list-style-type: none"> Infant formula? Feeding bottles, bottle nipples, nipple shields, or pacifiers? Coupons, discounts, or educational materials from companies that make or sell infant formula or feeding products? 	Hospital distribution of discharge packs containing infant formula or infant formula commercial advertising materials may imply to mothers that hospital staff are suggesting formula feeding. ^{12,13} Receipt of formula packs at hospital discharge is associated with poorer breastfeeding outcomes. ^{30,49-51}

Institutional Management

Measure	Explanation	Rationale
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Nurse skill competency	<p>Are nurses required to demonstrate competency in the following skills?</p> <ul style="list-style-type: none"> • Placement and monitoring of the newborn skin-to-skin with the mother immediately following birth? • Assisting with effective newborn positioning and latch for breastfeeding? • Assessment of milk transfer during breastfeeding • Assessment of maternal pain related to breastfeeding? • Teaching hand expression of breast milk? • Teaching safe formula preparation and feeding? 	<p>It is important that hospital staff who provide maternity care have knowledge, skills, and competence in comprehensive breastfeeding management. Regular assessment of staff's competency in infant feeding management helps ensure that mothers receive the appropriate care and assistance to successfully initiate and maintain breastfeeding.¹³ Hospital staff breastfeeding education and training is associated with improved breastfeeding knowledge, attitudes, practices, and outcomes.⁵²⁻⁵⁸ The United States Breastfeeding Committee (USBC) has developed a comprehensive list of core competencies for breastfeeding for health professionals. These competencies have been endorsed by several associations and organizations.⁵⁹⁻⁶⁰ The World Health Organization (WHO) has also developed a comprehensive list of competencies for hospital staff who help mothers with infant feeding.¹³</p>
Nurse competency assessment	<p>How often are nurses formally assessed for clinical competency in breastfeeding support and lactation management?</p>	<p>It is important that staff's knowledge and skills about breastfeeding management, mother-infant care, interpersonal communications, and counseling should be assessed at hiring and periodically thereafter.¹² WHO's global standard is defined as: at least 80% of health professionals who provide antenatal, delivery, or newborn care report receiving competency assessments in breastfeeding in the previous 2 years.¹³ Hospital staff breastfeeding education and training is associated with improved breastfeeding knowledge, attitudes, practices, and outcomes.⁵²⁻⁵⁸</p>
Documentation of exclusive breastfeeding	<p>Does your hospital record/track exclusive breastfeeding throughout the entire hospitalization?</p>	<p>WHO recommends that facilities record and track information on exclusive breastfeeding for all infants.¹³ Hospital documentation of exclusive breastfeeding may increase breastfeeding initiation.⁶² Joint Commission-accredited hospitals can record exclusive breastfeeding throughout an infant's entire hospitalization.⁶¹</p>
Acquisition of infant formula	<p>How does your hospital acquire infant formula?</p>	<p>The International Code of Marketing of Breast-milk Substitutes and related World Health Assembly resolutions encourages hospitals to purchase formula and feeding devices at fair market value.^{12,63} American Dietetic Association guidelines for mandatory elements of infant formula hazard analysis and critical control points (HACCP) plans apply to purchased and free infant formula.⁶⁴ The Institute of Medicine recognizes the inherent conflict of interest this kind of financial support introduces.⁶⁵ Implementation of hospital policy for market price purchasing of infant formula has been found to be associated with reduced in-hospital formula supplementation and increased in-hospital exclusive breastfeeding and breastfeeding duration.⁶⁶</p>

Written policies	<p>Which of the following are included in a written policy (or policies) at your hospital?</p> <p>Policy requiring:</p> <ul style="list-style-type: none"> • Documentation of medical justification or informed parental consent for giving non-breast milk feedings to breastfed newborns? • Formal assessment of staff's clinical competency in breastfeeding support? • Documentation of prenatal breastfeeding education? • Staff to teach mothers breastfeeding techniques, including how to manage common difficulties AND staff to show mothers how to express breast milk? • Purchase of infant formula and related breast milk substitutes by the hospital at fair market value AND a policy prohibiting distribution of marketing/education materials, samples, or gift packs by the facility that include or promote breast milk substitutes (infant formula), infant feeding supplies, or infant formula coupons? • Staff to provide mothers with resources for breastfeeding support after discharge? • Placement of newborns in skin-to-skin contact with their mother at birth or soon thereafter? • The option for mothers to room-in with their newborns? 	<p>Written hospital breastfeeding policies are associated with increased breastfeeding.⁶⁷⁻⁶⁸ The Academy of Breastfeeding Medicine (ABM) has developed a Model Maternity Policy Supportive of Breastfeeding that facilities can model their own institutional policies after.¹² Ideal hospital breastfeeding policies should generally cover The WHO's Ten Steps to Successful Breastfeeding and the WHO's International Code of Marketing of Breast-milk Substitutes.¹²⁻¹³</p>
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Reference List

1. Pérez-Escamilla R, Martinez JL, Segura-Pérez S. [Impact of the Baby-Friendly Hospital Initiative on breastfeeding and child health outcomes: a systematic review](#). *Matern Child Nutr*. 2016;12(3):402–417.
2. Munn AC, Newman SD, Mueller M, Phillips SM, Taylor SN. [The impact in the United States of the Baby-Friendly Hospital Initiative on early infant health and breastfeeding outcomes](#). *Breastfeed Med*. 2016;11:222–230.
3. Martens PJ. [What do Kramer's Baby-Friendly Hospital Initiative PROBIT studies tell us? A review of a decade of research](#). *J Hum Lact*. 2012;28(3):335–342.
4. Rollins NC, Bhandari N, Hajeebhoy N, Horton S, Lutter CK, Martines JC, Piwoz EG, Richter LM, Victora CG. [Why invest, and what it will take to improve breastfeeding practices?](#) *Lancet*. 2016;387(10017):491–504.
5. Merewood A, Bugg K, Burnham L, Krane K, Nickel N, Broom S, Edwards R, Feldman-Winter L. [Addressing racial inequities in breastfeeding in the Southern United States](#). *Pediatrics*. 2019;143(2).
6. DelliFraine J, Langabeer J 2nd, Williams JF, Gong AK, Delgado RI, Gill SL. [Cost comparison of baby friendly and non-baby friendly hospitals in the United States](#). *Pediatrics*. 2011;127(4):e989–994.
7. Allen JA, Longenecker HB, Perrine CG, Scanlon KS. [Baby-friendly hospital practices and birth costs](#). *Birth*. 2013;40(4):221–226.
8. American Academy of Pediatrics Committee on Fetus and Newborn, American College of Obstetricians and Gynecologists Committee on Obstetric Practice, Kilpatrick SJ, Papile L. *Guidelines for Perinatal Care*. 8th ed. Elk Grove Village, IL and Washington, DC: American Academy of Pediatrics and American College of Obstetrics and Gynecology; 2017.
9. American Academy of Pediatrics Section on Breastfeeding. [Breastfeeding and the use of human milk](#). *Pediatrics*. 2022; 150 (1): e2022057988.
10. Feldman-Winter L, Goldsmith JP, American Academy of Pediatrics Committee on Fetus and Newborn, American Academy of Pediatrics Task Force on Sudden Infant Death Syndrome. [Safe sleep and skin-to-skin care in the neonatal period for healthy term newborns](#). *Pediatrics*. 2016;138(3).

11. Holmes AV, McLeod AY, Bunik M. [Academy of Breastfeeding Medicine \(ABM\) clinical protocol #5: Peripartum breastfeeding management for the healthy mother and infant at term, revision 2013.](#) *Breastfeed Med.* 2013;8(6):469–473.
12. Hernández-Aguilar MT, Bartick M, Schreck P, Harrel C. [ABM clinical protocol #7: model maternity policy supportive of breastfeeding.](#) *Breastfeed Med.* 2025; 20(11):771-804.
13. World Health Organization. [Implementation Guidance: Protecting, Promoting and Supporting Breastfeeding in Facilities Providing Maternity and Newborn Services—the Revised Baby-Friendly Hospital Initiative.](#) Geneva: World Health Organization; 2018.
14. Moore ER, Bergman N, Anderson GC, Medley N. [Early skin-to-skin contact for mothers and their healthy newborn infants.](#) *Cochrane Database Syst Rev.* 2016;11:CD003519.
15. Cleveland L, Hill CM, Pulse WS, DiCioccio HC, Field T, White-Traut R. [Systematic review of skin-to-skin care for full-term, healthy newborns.](#) *J Obstet Gynecol Neonatal Nurs.* 2017;46(6):857–869.
16. Stevens J, Schmied V, Burns E, Dahlen H. [Immediate or early skin-to-skin contact after a Caesarean section: a review of the literature.](#) *Matern Child Nutr.* 2014;10(4):456–473.
17. Hung KJ, Berg O. [Early skin-to-skin after cesarean to improve breastfeeding.](#) *MCN Am J Matern Child Nurs.* 2011;36(5):318–324.
18. Dumas L, Lepage M, Bystrova K, Matthiesen AS, Welles-Nyström B, Widström AM. [Influence of skin-to-skin contact and rooming-in on early mother-infant interaction: a randomized controlled trial.](#) *Clin Nurs Res.* 2013;22(3):310–336.
19. Cohen SS, Alexander DD, Krebs NF, Young BE, Cabana MD, Erdmann P, Hays NP, Bezold CP, LevinSparenberg E, Turini M, Saavedra JM. [Factors associated with breastfeeding initiation and continuation: a meta-analysis.](#) *J Pediatr.* 2018;203:190–196.e21
20. Jaafar SH, Ho JJ, Lee KS. [Rooming-in for new mother and infant versus separate care for increasing the duration of breastfeeding.](#) *Cochrane Database Syst Rev.* 2016;(8):CD006641.
21. De Bernardo G, Riccitelli M, Giordano M, Proietti F, Sordino D, Longini M, Buonocore G, Perrone S. [Rooming-in reduces salivary cortisol level of newborn.](#) *Mediators Inflamm.* 2018;2018:1–5.
22. Ludington-Hoe SM, Morgan K. [Infant assessment and reduction of sudden unexpected postnatal collapse risk during skin-to-skin contact.](#) *Newborn Infant Nurs Rev.* 2014;14:28–33.
23. Kellams A, Harrel C, Omage S, Gregory C, Rosen-Carole C. [ABM clinical protocol #3: supplementary feedings in the healthy term breastfed neonate, revised 2017.](#) *Breastfeed Med.* 2017;12:188–198.
24. Wight N, Marinelli KA. [ABM clinical protocol #1: guidelines for glucose monitoring and treatment of hypoglycemia in term and late preterm neonates, revised 2021.](#) *Breastfeed Med.* 2021;16(5):353-365.
25. Chantry CJ, Dewey KG, Peerson JM, Wagner EA, Nommsen-Rivers LA. [In-hospital formula use increases early breastfeeding cessation among first-time mothers intending to exclusively breastfeed.](#) *J Pediatr.* 2014;164(6):1339–1345.e5.
26. Perrine CG, Scanlon KS, Li R, Odom E, Grummer-Strawn LM. [Baby-friendly hospital practices and meeting exclusive breastfeeding intention.](#) *Pediatrics.* 2012;130(1):54–60.
27. Dabritz HA, Hinton BG, Babb J. [Maternal hospital experiences associated with breastfeeding at 6 months in a northern California county.](#) *J Hum Lact.* 2010;26(3):274–285.
28. Bentley JP, Nassar N, Porter M, de Vroome M, Yip E, Ampt AJ. [Formula supplementation in hospital and subsequent feeding at discharge among women who intended to exclusively breastfeed: an administrative data retrospective cohort study.](#) *Birth.* 2017;44(4):352–362.
29. DiGirolamo AM, Grummer-Strawn LM, Fein SB. [Effect of maternity-care practices on breastfeeding.](#) *Pediatrics.* 2008;122 Suppl 2:S43-9.

30. Jung S, Nobari TZ, Whaley SE. [Breastfeeding outcomes among WIC-participating infants and their relationships to baby-friendly hospital practices.](#) *Breastfeed Med.* 2019;14(6):424–431.
31. World Health Organization. [Hypoglycemia of the Newborn—Review of the Literature.](#) Geneva: World Health Organization; 1997.
32. American Academy of Pediatrics Committee on Fetus and Newborn, Adamkin DH. [Postnatal glucose homeostasis in late-preterm and term infants.](#) *Pediatrics.* 2011;127(3):575–579.
33. Haninger NC, Farley CL. [Screening for hypoglycemia in healthy term neonates: effects on breastfeeding.](#) *J Midwifery Womens Health.* 2001;46(5):292–301.
34. Labiner-Wolfe J, Fein SB, Shealy KR. [Infant formula-handling education and safety.](#) *Pediatrics.* 2008;122 Suppl 2:S85–90.
35. US Department of Agriculture. [Infant Nutrition and Feeding: A Guide for Use in the Special Supplemental Nutrition Program for Women, Infants, and Children \(WIC\).](#) Washington DC: US Department of Agriculture; 2019.
36. Centers for Disease Control and Prevention. Cronobacter Prevention and Control website. <https://www.cdc.gov/cronobacter/prevention.html>. Accessed April 7, 2026.
37. Centers for Disease Control and Prevention. How to Clean, Sanitize, and Store Infant Feeding Items website. <https://www.cdc.gov/healthywater/hygiene/healthychildcare/infantfeeding/cleansanitize.html>. Accessed April 7, 2026.
38. Hernandez-Aguilar M, Bartick M, Schreck P, Chapin E. ABM Clinical Protocol #7: Model Maternity Policy Supportive of Breastfeeding, revised 2025. *Breastfeed Med.* 2025;20(11):771-804. doi:10.1177/15568253251375964
39. Balogun OO, O'Sullivan EJ, McFadden A, et al. [Interventions for promoting the initiation of breastfeeding.](#) *Cochrane Database Syst Rev.* 2016;11:CD001688.
40. Wambach K, Riordan J. *Breastfeeding and Human Lactation.* 5th Ed. Burlington, MA: Jones & Bartlett Learning; 2016.
41. Buccini GDS, Pérez-Escamilla R, Paulino LM, Araújo CL, Venancio SI. [Pacifier use and interruption of exclusive breastfeeding: Systematic review and meta-analysis.](#) *Matern Child Nutr.* 2017;13(3).
42. Zimmerman E, Thompson K. [Clarifying nipple confusion.](#) *J Perinatol.* 2015;35(11):895–899.
43. Cadwell K. [Latching-on and suckling of the healthy term neonate: breastfeeding assessment.](#) *J Midwifery Womens Health.* 2007;52(6):638–642.
44. Nommsen-Rivers LA, Heinig MJ, Cohen RJ, Dewey KG. [Newborn wet and soiled diaper counts and timing of onset of lactation as indicators of breastfeeding inadequacy.](#) *J Hum Lact.* 2008;24(1):27–33.
45. Witt AM, Bolman M, Kredit S. [Mothers value and utilize early outpatient education on breast massage and hand expression in their self-management of engorgement.](#) *Breastfeed Med.* 2016;11:433–439.
46. Benitz WE, American Academy of Pediatrics Committee on Fetus and Newborn. [Hospital stay for healthy term newborn infants.](#) *Pediatrics.* 2015;135(5):948–953.
47. Patel S, Patel S. [The effectiveness of lactation consultants and lactation counselors on breastfeeding outcomes.](#) *J Hum Lact.* 2016;32(3):530–541.
48. Dennis CL, Kingston D. [A systematic review of telephone support for women during pregnancy and the early postpartum period.](#) *J Obstet Gynecol Neonatal Nurs.* 2008;37(3):301–314.
49. Sadacharan R, Grossman X, Matlak S, Merewood A. [Hospital discharge bags and breastfeeding at 6 months: data from the infant feeding practices study II.](#) *J Hum Lact.* 2014;30(1):73–79.
50. Feldman-Winter L, Grossman X, Palaniappan A, Kadokura E, Hunter K, Milcarek B, Merewood A. [Removal of industry-sponsored formula sample packs from the hospital: does it make a difference?](#) *J Hum Lact.* 2012;28(3):380–388.

51. Rosenberg KD, Eastham CA, Kasehagen LJ, Sandoval AP. [Marketing infant formula through hospitals: the impact of commercial hospital discharge packs on breastfeeding.](#) *Am J Public Health.* 2008;98(2):290–295.
52. Gavine A, MacGillivray S, Renfrew MJ, Siebelt L, Haggi H, McFadden A. [Education and training of healthcare staff in the knowledge, attitudes and skills needed to work effectively with breastfeeding women: a systematic review.](#) *Int Breastfeed J.* 2016;12:6.
53. Sinha B, Chowdhury R, Sankar MJ, et al. [Interventions to improve breastfeeding outcomes: a systematic review and meta-analysis.](#) *Acta Paediatr.* 2015;104(467):114–134.
54. Beake S, Pellowe C, Dykes F, Schmied V, Bick D. [A systematic review of structured compared with nonstructured breastfeeding programmes to support the initiation and duration of exclusive and any breastfeeding in acute and primary health care settings.](#) *Matern Child Nutr.* 2012;8(2):141–161.
55. Ward KN, Byrne JP. [A critical review of the impact of continuing breastfeeding education provided to nurses and midwives.](#) *J Hum Lact.* 2011;27(4):381–393.
56. Balogun OO, Dagvadorj A, Yourkavitch J, et al. [Health facility staff training for improving breastfeeding outcome: a systematic review for step 2 of the Baby-Friendly Hospital Initiative.](#) *Breastfeed Med.* 2017;12(9):537-546.
57. Feldman-Winter L, Barone L, Milcarek B, et al. [Residency curriculum improves breastfeeding care.](#) *Pediatrics.* 2010;126(2):289–297.
58. Zakarija-Grkovic I, Burmaz T. [Effectiveness of the UNICEF/WHO 20-hour course in improving health professionals' knowledge, practices, and attitudes to breastfeeding: before/after study of 5 maternity facilities in Croatia.](#) *Croat Med J.* 2010;51(5):396–405.
59. United States Breastfeeding Committee. [Core Competencies in Breastfeeding Care and Services for All Health Professionals.](#) Rev ed. Washington, DC: United States Breastfeeding Committee; 2010.
60. United States Breastfeeding Committee. Core Competencies in Breastfeeding Care and Services for All Health Professionals website. <http://www.usbreastfeeding.org/core-competencies>. Accessed September 22, 2021.
61. Specifications Manual for Joint Commission National Quality Measures. PC-05—Measure Information Form website. <https://manual.jointcommission.org/releases/TJC2025B/MIF0170.html>. Accessed April 7, 2026.
62. Strauch J, Rohrer JE, Refaat A. [Increased hospital documentation requirements may not increase breastfeeding among first-time mothers.](#) *J Eval Clin Pract.* 2016;22(2):194-9.
63. World Health Organization. [International Code of Marketing of Breast-milk Substitutes.](#) Geneva: World Health Organization; 1981.
64. Pediatric Nutrition Practice Group. Infant and Pediatric Feedings: Guidelines for Preparation of Human Milk and Formula in Health Care Facilities, 3rd Ed. Chicago: The Academy of Nutrition and Dietetics; 2018.
65. Committee on Conflict of Interest in Medical Research, Education, and Practice, Lo B, Field MJ. [Conflict of Interest in Medical Research, Education, and Practice.](#) Washington DC: Institute of Medicine; 2009.
66. Tarrant M, Lok KY, Fong DY, et al. [Effect of a hospital policy of not accepting free infant formula on in-hospital formula supplementation rates and breast-feeding duration.](#) *Public Health Nutr.* 2015;18(14):2689–2699.
67. Rosenberg KD, Stull JD, Adler MR, Kasehagen LJ, Crivelli-Kovach A. [Impact of hospital policies on breastfeeding outcomes.](#) *Breastfeed Med.* 2008;3(2):110–116.
68. Li CM, Li R, Ashley CG, Smiley JM, Cohen JH, Dee DL. [Associations of hospital staff training and policies with early breastfeeding practices.](#) *J Hum Lact.* 2014;30(1):88–96.