

## *Step 9*

GIVE NO ARTIFICIAL NIPPLES OR PACIFIERS  
TO BREASTFEEDING INFANTS.



## Objectives

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1. AVOID USING PACIFIERS DURING THE MATERNITY STAY.
2. REDUCE INTERFERENCE WITH ESTABLISHMENT OF MAXIMAL MILK SUPPLY.
3. MAXIMIZE OPPORTUNITIES FOR BABIES TO LEARN TO SUCKLE AT THE BREAST.
4. USE ALTERNATIVE INFANT-FEEDING METHODS (FINGER- OR CUP-FEEDING, ETC.)  
WHEN SUPPLEMENTAL FEEDING IS NECESSARY.
5. SUPPORT AND PROMOTE PARENTS' UNDERSTANDING OF AND RESPONSIVENESS  
TO BABIES' CUES.

# Step 9

## GOAL: TO MAXIMIZE OPPORTUNITIES FOR BABIES TO LEARN TO SUCKLE AT THE BREAST AND TO REDUCE INTERFERENCE WITH THE ESTABLISHMENT OF A MAXIMAL MILK SUPPLY.

### BACKGROUND

Images of baby bottles and pacifiers, pervasive and deeply embedded in our culture, are nearly synonymous with the concept of “new baby.” Pacifiers are used worldwide, and many healthcare professionals and parents consider their use to be normal, useful and even necessary. Likewise, bottles with artificial nipples are widely considered to be the normal way to feed infants.

However, studies demonstrate that the sucking and feeding that occur with pacifiers can be detrimental to the establishment of breastfeeding success and that reducing or eliminating their use with healthy term infants in the hospital setting can improve breastfeeding outcomes.

#### **Pacifier Use**

- The mechanics involved in sucking on a pacifier and artificial nipple differ from the way in which a baby suckles at the breast which interferes with the baby learning to breastfeed. <sup>1-6</sup>
- The use of pacifiers during the maternity stay is associated with breastfeeding problems such as poor suckling technique, sore nipples and nipple trauma. <sup>7-12</sup>
- Infants who use pacifiers may feed less often and for shorter periods in a 24-hour period than infants who do not. <sup>13</sup>
- Use of pacifiers during the period in which milk supply is being established may reduce suckling at the breast and interfere with the body’s adjustment of milk supply to meet the baby’s requirements, resulting in insufficient milk supply <sup>9,11-14</sup> and is associated with a shorter duration of breastfeeding and reduced exclusivity of breastfeeding. <sup>9,12-16</sup>
- A Cochrane review of the literature examined cup-feeding versus bottle-feeding found that cup-fed infants were more likely to leave the hospital exclusively breastfed, and it found no difference in weight gain between the two groups. <sup>27</sup>



## Long-Term Health Outcomes Associated with Pacifier or Artificial Nipple Use

### Infections

Pacifiers are a potential medium for transmission on nosocomial infections in the hospital setting.<sup>28-30</sup> Pacifier use is associated with the increased risk of otitis media, gastrointestinal infection, and infection with *Candida* species and other morbidities.<sup>7,28-31, 33-41</sup>

### Dental Problems

The use of pacifiers is associated with malocclusion<sup>42-47</sup> and the development of dental caries.<sup>48,49</sup>

### Feeding and Nutrition Problems

Bottle-feeding with formula may interfere with the baby's ability to self-regulate nutritional intake. This may negatively impact appetite regulation, eating habits and appropriate weight maintenance later in life.<sup>50</sup>

### Safety Concerns

Unsafe handling and poor hygiene practices of pacifiers and bottles are common,<sup>55</sup> increasing the risk of contamination.

Bottle nipples and pacifiers can pose a choking hazard when not used correctly or when not properly disposed of, and both have been subject to consumer recalls for a variety of reasons.<sup>56-57</sup>

**“Pacifier use in the neonatal period should be avoided. Research shows that pacifier use in the neonatal period was detrimental to exclusive and overall breastfeeding.”**

Academy of Breastfeeding Medicine

## IMPLEMENTATION STRATEGY

### **Implementation: Best Practices for Success**

**Breastfeeding mothers should be counseled regarding the reasons to avoid using pacifiers bottles with formula during the time they and their babies are learning to breastfeed which may take at least one month until breastfeeding is well-established.**

Hospital policy should state that staff not give a breastfed infant a pacifier or a bottle unless there is a clinical indication and then should do so only after parents have been counseled, have made a fully informed choice and have given their informed consent for each instance of use.

**Legitimate uses of alternative feeding methods include a clinically indicated need for a supplementary feeding or a request by a mother who has made an informed choice.** Staff should be aware that a request for use of a bottle often signals need for support. The mother may be having difficulties with feeding or with other aspects of her or her infant's care. Trained staff should individually assess their needs, determine the appropriate intervention and support, (i.e. assisting with proper positioning and latch and allowing the dyad time to practice breastfeeding). Staff can help mothers understand that by addressing their underlying needs they can, in the majority of cases, avoid the use of infant formula/artificial baby milk or supplements.

Mothers who request that their baby be given a bottle with formula or a pacifier should be counseled the benefits of exclusive breastfeeding and how even a small amount of supplementation can negatively impact breastfeeding success (Step 6). A mom who is asking for additional supplementation may be experiencing a problem and should be given a direct assessment with a trained staff member. They should also be presented with recommended alternative feeding methods such as:

- Direct expression of breast milk into the baby's mouth.
- Tube- or finger-feeding
- Use of syringe or dropper
- Spoon-feeding
- Cup-feeding

Mothers should be counseled that while pacifiers may interfere with babies learning how to breastfeed and moms learning their feeding cues during the time breastfeeding is being established, they does no appear to be as problematic once breastfeeding is well-established. For most infants, this after four to six weeks. Once breastfeeding is well-established, the use of pacifiers may be appropriate for use during some periods of separation, such as after the return to work.

See the RESOURCES section at the end of this step for more information on alternate feeding methods.

## CLINICAL NOTES

“Pacifier use is best avoided during the initiation of breastfeeding and used only after breastfeeding is well-established.

- In some infants, early pacifier use may interfere with establishment of good breastfeeding practices, whereas in others it may indicate the presence of a breastfeeding problem that requires intervention.
- This recommendation does not contraindicate pacifier use for non-nutritive sucking and oral training of premature infants and other special care infants.”

American Academy of Pediatrics

**Facility staff should use pacifiers only when it is clinically indicated and only after informed consent has been obtained.** Just as a request for a bottle may indicate a problem with breastfeeding or other aspects of infant care, so might the use of a pacifier. Pacifiers are often used to settle a baby who is experiencing discomfort, including discomfort due to ineffective feeding. Their use, however, may mask hunger cues and reduce the frequency of feedings that would normally occur. For optimal breastfeeding outcomes, all of an infant's suckling needs should be satisfied at the breast during the time that breastfeeding is being established.

**Support from trained staff is needed to assess and address any underlying difficulties and ensure that parents are comfortable with breastfeeding management and have been informed of the risks of routine pacifier use prior to the establishment of breastfeedings.** As part of informed decision-making, parents should be notified that, while there are some clinical indications for short-term, temporary use of pacifiers (e.g., pain relief during painful procedure), sustained use has the potential to interfere with breastfeeding. The mother's ability to provide comfort to the infant, including through breastfeeding, should be reinforced. Parents should also be told about alternatives to the use of pacifiers during procedures when feasible (e.g., direct breastfeeding or skin-to-skin contact) and that their use should be restricted to times when other alternatives do not exist.

In the hospital setting, mothers and parents should be assisted with correcting the latch, getting the mom and baby comfortable with feeding positions (e.g. laid back or baby led feeding) and addressing any problems. It is imperative the baby receives the colostrum and the mother's milk production is protected (i.e. pumping with a hospital grade electric breast pump if there are any problems or delays in breastfeeding.) Time should be allowed for the mother-baby dyad to establish breastfeeding before interventions such as bottle, nipple shields or pacifiers are used.

### **Preparation: Eliminating Non-Indicated Use of Pacifiers and Artificial Nipples**

#### **Suggested Action Steps for implementing Step 9 include:**

1. The policy developed in Step 1 should address:
  - Alternative infant-feeding methods such as tube or finger feeding



- Staff use on pacifiers.
  - Informed consent for use of bottles or pacifiers.
  - How to discourage families from bringing pacifiers or feeding bottles with formula into to the hospital.
  - How nipple shields should be initiated by and used only under the care of skilled practitioners (e.g., IBCLCs or nurses specially trained in the use of nipple shields) in conjunction with a feeding plan and follow up care- and then only when clinically indicated and in an environment of informed consent.
2. Developing staff training and competencies that support:
    - Exclusive breastfeeding when clinically feasible.
    - Knowledge of the impact of pacifiers before breastfeeding has been established.
    - Skills development in using alternate feeding methods when clinically warranted (e.g., cup -, tube-, or syringe-feeding)
  3. Develop systems to track and address lapses in policy and evaluate impact.
  4. Review and adapt or develop educational materials for patients to reinforce teaching about pacifier use.
  5. Determine protocol and develop materials for documenting both patient education and informed consent related to Step 9.
  6. Purchase any needed alternate-feeding supplies (e.g., cups, tubing and/or syringes) for cases in which supplemental feedings are medically indicated.
  7. Ensure that staff training needs are met.
  8. Inform all staff of the importance of Step 9 for accomplishing quality improvement goals.
  9. Reposition supply bins for pacifiers.
  10. Post reminders about policies related to Step 9 in high-traffic areas.
  11. Work with prenatal care professionals and childbirth educators and with those responsible for prenatal hospital tours to inform patients about policies related to pacifier use.
  12. Implement systems for monitoring policy adherence and addressing policy lapses.
  13. Evaluate impact of Step 9.

## OVERCOMING BARRIERS: STRATEGIES FOR SUCCESS

The most common concerns related to implementing Step 9 are detailed below, along with strategies for overcoming them.

**Concern that pacifiers are needed to soothe babies.** Pacifiers are widely used to comfort fussy babies and are also used as a tool to help space feedings in the mother's absence or to enforce a feeding schedule. Without learning the principles of baby-led feeding, parents and other caregivers - including healthcare professionals - may feel ill equipped to care for a fussy baby without a pacifier. Without systems in place that support family-centered responsive care, healthcare professionals may use pacifiers inappropriately as a substitute for maternal care.

To support the success implementation of Step 9 and move towards family-centered responsive care, policies and staff trainings should:

- Enable skin-to-skin contact, rooming-in and on-demand infant feeding.
- Teach parents about the many ways their infant communicates with them and how to explore the reasons their infant may be fussy.
- Inform patients of alternative ways to comfort a baby, including offering the breast and skin-to-skin contact, adjusting the level and type of stimulation, changing dirty diapers, etc.
- Educate parents about the importance of frequent suckling to maximize milk supply, the range of infant needs met through suckling, the normalcy of cluster-feeding and the importance of encouraging frequent suckling.

**“Because introduction of a pacifier has the potential to disrupt the development of effective breastfeeding behavior, their use should be minimized until breastfeeding is well established. It is important to help mothers understand that substituting or or delaying breastfeedings may ultimately reduce milk supply because of the reduction in stimulation derived from infant suckling. Encouraging good breastfeeding practices should be the primary focus of counseling along with increasing the mother's understanding that the use of pacifiers and bottles often has been associated with reduced breastfeeding.”**

American College of Obstetricians and Gynecologists



**Disbelief that pacifiers are problematic.** Pacifier use is so pervasive in our culture that it is difficult for many to believe that it can be harmful in the early weeks. Families may have to adjust their perceptions that pacifier use is a normal part of new parenthood. Personnel who have become reliant on pacifier use as part of their routine care may have a difficult time adjusting their non-evidenced habits.

To support the implementation of Step 9 and encourage avoidance of pacifiers, staff training should include information about the impact of pacifier use. Education should include:

- Interference with baby-led feeding and the mother's identification of feeding cues
- The impact of pacifier use on exclusive breastfeeding
- Reduced suckling at the breast
- Establishment of a productive latch
- Risk of infection related to pacifier use

**Facility procedures could be enhanced by:**

- Signs in highly visible places stating the policy regarding the limiting of pacifier use, along with rationale.
- Scripts for staff discussing risks of pacifier use with breastfeeding mothers.

**Later pacifier use is recommended for possible prevention of sudden infant death syndrome (SIDS/SUID).**<sup>59</sup> Parents and healthcare professionals may feel conflicted about limiting pacifier use in the hospital when aware that the use of pacifiers may be associated with risk reduction of SIDS/SUID. Educating both staff and parents about the recommendation, as appropriate, can assist with overcoming this conflict. The AAP recommendation states that pacifier use should be delayed until breastfeeding is well-established. The risk of SIDS/SUID is



The AAFP recommends that physicians “educate mothers about the risks of unnecessary supplementation and pacifier use,” and “encourages that hospital staff respect the decision of the mother who chooses to breastfeed exclusively by not offering formula, water or pacifiers to an infant unless there is a specific physician order.”

—American Academy of Family Physicians

greatest between two to three months, after breastfeeding is established. Once initiated, pacifier use is recommended only when placing the infant down for sleep and should not be reinserted once the infant falls asleep. Additionally, there is no reason to force a baby to take a pacifier if they have refused to take it.

For further information on safe sleep and SIDS/SUID resources, refer to the Safe to Sleep Campaign at [www.nichd.nih.gov/sts/Pages/default.aspx](http://www.nichd.nih.gov/sts/Pages/default.aspx).

**Alternative supplemental feeding methods are cumbersome.** Staff and parents may feel comfortable with bottle-feeding with formula because it is familiar. Other supplemental feeding methods may feel foreign, unsafe and cumbersome because they are unfamiliar. Any supplemental feeding methods, including bottle-feeding with formula, can be unsafe or detrimental if they are not use correctly.

- Risks of bottle-feeding with formula and pacifier use should be discussed and reinforced.
- Staff should be offered hands-on training, and their skills should be assessed for use of alternate feeding methods.
- The ability of staff to teach alternate feeding methods to families should also be assessed.
- Regular skills review and reinforcement with a variety of teaching techniques (videos, demonstrations and return-demonstration, photos, case studies, etc.) should be implemented to increase comfort, competency and familiarity.

**No alternative feeding method should be undertaken until proper training in the safe use of the method has occurred.**



## EVALUATING SUCCESS

Use the information in this section and the additional tools provided in the IMPLEMENTATION RESOURCES section at the end of this section as checkpoints to verify that you are successfully implementing Step 9. Assign one or two staff members who have the best perspective on day-to-day operations to complete these checkpoints.

**The breast both pacifies and nourishes the baby. All of baby's suckling needs can and should be satisfied at the breast.**

Facility management should use the included Step 9 Action Plan to assess progress on this step.

**Process changes.** When evaluating your facility's success in implementing Step 9, consider the following:

- What policies and resource materials about pacifier use has been developed?
- Have patient education materials and strategies been developed to address pacifier distribution by staff?
- How knowledgeable are personnel about the risks of pacifiers use before breastfeeding has been established and the appropriate use of alternative methods of feeding in the first couple of weeks?

**Impact of patient experience.** Your facility should track data about the use of pacifiers and as well as other alternative feeding methods. Data to track include:

- Number of infants - observed through room checks - who have a hospital-provided or patient-owned pacifier in use or at the bedside.
- Number of supplements - checked through chart audit - given via bottles and artificial nipples.
- Use of nipple shields (number used, initiated appropriately, follow up plan established, etc.).
- Number, type and acuity of breastfeeding's in a 24-hour period.
- Exclusive breastfeeding rates at hospital discharge.

Assessing value to the facility. Use the Facility Impact chard included in the IMPLEMENTATION RESOURCES section to track your facility's time and money spent on the measures recommended and to assess cost savings that may be attributed to the changes made.

- Track expense of supplies (pacifiers, bottles, nipples, cups, feeding syringes and feeding tubing).

- Track space used for storage supplies.

**Please see IMPLEMENTATION RESOURCES for UCATS certification application.**

## RESOURCES

- Documents from the World Health Organization that include information on alternative feeding procedures: World Health Organization, Department of Reproductive Health and Research. (2003) Managing newborn problems: a guide for doctors, nurses, and midwives. World Health Organization: Hong Kong. <http://bit.ly/2keMdEL>
- Handout on pacing bottle-feeds: <http://bit.ly/2keLzqL>
- Webpages by Kelly Bonyata, BS, IBCLC:
  - What should I know about giving my breastfed baby a pacifier? <http://bit.ly/2keNOdv>
  - Alternative Feeding Methods: <http://bit.ly/2kf4q4Q>
- Ban the Bags: [banthebags.org](http://banthebags.org)

## IMPLEMENTATION RESOURCES

- Action Plan
- Facility Impact
- UCATS Application Form



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# Step 9

## ACTION PLAN

**Step 9 Implementation Owner:** \_\_\_\_\_

**Start date:** \_\_\_\_\_ **Target completion date:** \_\_\_\_\_

### Primary Goals of Step 9:

- ☐ Avoid using pacifiers and artificial nipples during the maternity stay.
- ☐ Reduce interference with establishment of maximal milk supply.
- ☐ Maximize opportunities for babies to learn to suckle at the breast.
- ☐ Utilize alternative infant-feeding methods (finger- or cup-feeding, etc.), when supplemental feeding is necessary.



RESOURCES FOR IMPLEMENTATION:		
	Description	Budgeted amount
Materials purchased for alternate feeding methods (cups, syringes, tubing, etc.)	<div></div> <div></div> <div></div> <div></div> <div></div>	\$
Staffing and training: May include management of resources, training of support group leaders, etc.	<div></div> <div></div> <div></div> <div></div> <div></div>	\$
Materials development: Resources for clinicians, handouts for families, talking points for prenatal care professionals.	<div></div> <div></div> <div></div> <div></div> <div></div>	\$
Other costs related to implementation of <i>Step 9</i> .	<div></div> <div></div> <div></div> <div></div> <div></div>	\$
<b>Total</b>		\$

## Implementation

### Do facility policies:

- ☐ Promote use of alternative infant-feeding methods other than bottles and artificial nipples?
- ☐ Discuss appropriate staff use of bottles/artificial nipples and pacifiers?
- ☐ Require informed consent for use of bottles/artificial nipples and pacifiers?
- ☐ Help personnel discourage families from bringing pacifiers or feeding bottles with artificial nipples with them to the hospital?
- ☐ Clarify that nipple shields should only be initiated by and used under the care of skilled practitioners (e.g., IBCLCs or nurses specially trained in the use of nipple shields) in conjunction with a feeding plan, and then only when clinically indicated and in an environment of informed consent?

### Do staff trainings and competencies support:

- ☐ Exclusive breastfeeding when clinically feasible?
- ☐ Staff knowledge of the impact of pacifiers and artificial nipples on breastfeeding?
- ☐ Skills development in using alternate feeding methods (e.g., cup-, tube-, or syringe-feeding)?

### Have you:

- ☐ Secured high-level support for implementation of *Step 9*?
- ☐ Developed systems to track and address lapses in policy and evaluate impact?
- ☐ Reviewed and adapted or developed educational materials for patients to reinforce teaching about pacifier and bottle/artificial nipple use?
- ☐ Determined a protocol and developed materials to document both patient education and informed consent related to *Step 9*?
- ☐ Purchased any supplies (e.g., cups, tubing and/or syringes) for alternate feeding in instances when supplemental feedings are medically indicated?

Notes

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## Step 9 Implementation Tracking

Use the table below as a checkpoint for your unit and facility planning and for assessing your progress on Step 9.

Set unit goals in terms of the month at which you plan to achieve each goal below, and assign each goal to be monitored a specific person on staff.

### Process changes

Each goal below should be documented and archived so that your facility can verify progress and assess future goals.

At month		Person Responsible	Initials	Date Completed
	All personnel have been informed of the importance of <i>Step 9</i> for accomplishing quality improvement goals.			
	Alternate feeding supplies are stocked and available to personnel for use with any necessary supplemental infant feedings.			
	Prenatal care professionals and childbirth educators have been educated and provided resources to inform patients about policies related to pacifier and bottle/artificial nipple use.			
	A system of documentation, audit or interview (perhaps through periodic staff reviews) has been developed to monitor policy adherence and address policy lapses.			
	Reminders about these policies and support materials about supplemental feeding and pacifier use are posted and readily available to personnel.			

## Impact on patient experience

Audit the impact to patient experience by assessing the following on a quarterly basis:

Number		Person Responsible	Initials	Date Completed
	Infants who have a hospital-provided or patient's own pacifier in use or at the bedside, as determined by room checks			
	Supplements given via bottles and artificial nipples as determined by chart audit			
	Number of nipple shields used			
	Number of instances when nipple shields were both initiated appropriately and used confidently by patients			
	Percentage of mothers breastfeeding exclusively at discharge			



# Step 9

## FACILITY IMPACT

### Avoidance of Pacifiers and Artificial Nipples

COSTS TO FACILITY		
	Description/Notes	Dollar Amount
Materials purchased for alternate feeding methods (cups, syringes, tubing, etc.)		\$
Staffing and training: May include management of resources, training of support group leaders, etc.		\$
Materials development: Resources for clinicians, handouts for families, talking points for prenatal care professionals		\$
Other costs related to implementation of <i>Step 9</i>		\$
	Subtotal	\$
SAVINGS TO FACILITY		
	Description/Notes	Dollar Amount
Staff time saved by avoiding poor infant and mother health outcomes related to pacifiers and bottles (nosocomial infections and mastitis, for example)		\$
Facility savings (materials, administration, etc.) related to avoiding pacifiers and bottles		\$
Savings from reduced need for infant formula		\$
Increased breastfeeding duration and exclusivity among mothers		\$
Other savings and benefits to facility		\$
	Subtotal	\$
		Net Annual Loss or Gain to Facility
		\$
What can be done differently next year?		

# Step 9

## UCATS STEPPING UP FOR UTAH BABIES

### APPLICATION

The inquiring healthcare facility practices optimal infant feeding and should expect that at least 40% of the breastfeeding infants leave their facility without ever using pacifiers. If the breastfeeding infant is using a pacifier, more than 70% of those mothers have been fully informed of the benefits of delaying pacifier use until breastfeeding has been established.

1. What percentage of breastfeeding infant ever used a pacifier while in your facility? \_\_\_\_\_%

Numerator: # of breastfed infant who use pacifiers while in the facility

Denominator: # of breastfed infants

2. Of breastfeeding infants who use pacifiers while in your facility, what percentage of mothers have been informed by the staff about the benefits of delaying pacifier use until breastfeeding has been established?  
\_\_\_\_\_%

Numerator: # of breastfed infants who use pacifiers while in the facility and whose mothers are informed by staff of benefits of delaying pacifier use until breastfeeding has been established

Denominator: # of breastfed infants who use pacifiers while in the facility