

*Breastfeeding Promotion
and Support Guidelines
for Healthy Full Term Infants*



*Distributed by
Iowa WIC Program
Iowa Department of Public Health*

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Foreword

These breastfeeding promotion and support guidelines were developed in 1991 by the Iowa WIC Program to help health professionals provide consistent information to all pregnant and breastfeeding women. In addition, key teaching resources were identified in the guidelines. In 1995 the guidelines were revised to reflect the current literature and management strategies for breastfeeding. Several members of the Iowa Lactation Task Force provided technical review.

This revision features expanded content based on current literature and a new format. Technical review was again provided by members of the Iowa Lactation Task Force and by one of the breastfeeding coordinators for the Iowa Chapter of the American Academy of Pediatrics, Dr. Claibourne Dungy.

These guidelines are intended for use by health professionals who have a basic understanding of breastfeeding and who provide support to generally healthy mothers and babies. For most breastfeeding dyads, all that is needed for successful breastfeeding is frequent mother-to-baby contact. These guidelines provide information to help in problem solving and identify client education resources. High-risk mothers and babies should be referred to board certified lactation consultants and other health professionals with advanced lactation management skills.

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Chapter 1

Preparing for Breastfeeding

A pregnant woman needs to have accurate information to make an informed infant feeding decision. Then she needs information about how to prepare for infant feeding and where to find support services and information. This chapter describes a proven counseling strategy, reviews the benefits and barriers to breastfeeding, and provides information about preparing for breastfeeding. The contraindications to breastfeeding are also identified.

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The Three-Step Counseling Strategy

Introduction

The Three-Step Counseling Strategy developed by Best Start Social Marketing helps health care professionals identify and counsel women prenatally about their breastfeeding concerns. This strategy makes the following three assumptions:

- Your time allotted for counseling is short,
 - Clients are often reluctant to share their feelings, and
 - You need an efficient way to identify each client's concerns so you can provide appropriate educational messages.
-

Try this strategy other times

This counseling strategy is also useful during follow-up encounters and it can be used successfully with other nutrition and health topics.

The three steps

The Three-Step Counseling Strategy uses the steps in the table below:

Step	Action
1	Ask open-ended questions.
2	Affirm feelings.
3	Educate.

Step 1. Ask Open-ended Questions

Starting the conversation

Your initial question is very important in opening the conversation. Using open-ended questions helps elicit concerns about breastfeeding. An open-ended question is a question with a wide range of possible answers. Examples of open-ended questions to begin conversations about breastfeeding include:

- “How do you feel about breastfeeding?”
- “What have you heard about breastfeeding?”
- “What can you tell me about breastfeeding?”

Note: Open-ended questions often start with the words “what” or “how.”

Asking for more information

It is unlikely that women will share all of their breastfeeding concerns while answering one question. Follow your open-ended questions with probing questions. Four types of probing questions are described below.

Type of probing question	Example
<u>Extending:</u> Asks her to elaborate on what she just said	“What else can you tell me that worries you about returning to school and breastfeeding?”
<u>Clarifying:</u> Asks her to clarify what she just said	“When you say breastfeeding is embarrassing, are you worried what others will think?”
<u>Reflecting:</u> Restates what she said to let her know you heard her and that you would like her to continue	“It sounds like your husband is not comfortable with your decision to breastfeed?”
<u>Re-directing:</u> Moves her to another breastfeeding concern	“Other than embarrassment, what other concerns do you have?”

Softening or padding your probing questions

You may want to soften or pad probing questions to make them less direct and less threatening. Padding questions also makes them more personal. Pad a question by:

- Repeating the client’s words,
- Adding extra words,
- Using pauses, and
- Using the client’s name (if acceptable to the client).

Example: “It sounds like your mother doesn’t think you should breastfeed. Can you tell me more?”

Step 2. Affirm Feelings

Recognize her feelings

The second step is to affirm a woman's feelings. This acknowledges that you heard what she said and lets her know that her feelings are normal. This helps women feel more comfortable and makes them more likely to open up and be receptive to your ideas. Affirming feelings also builds the client's self-confidence.

Examples

Sample affirmations follow:

- "That is a common concern that I hear women express."
 - "My friend told me that, too."
 - "I remember feeling the same way myself."
 - "Many women have told me the same thing."
-

Practice

This step is the most difficult one to master. It is often skipped by health professionals in their rush to begin providing information. Practice this step in role-plays with your co-workers until it feels comfortable.

Note: The training guide provides opportunities to practice using paper and pencil, sample counseling dialogue, and role-plays.

Step 3. Educate

Introduction

The third step is to provide breastfeeding education targeted specifically to the concerns just discussed. However, many health care professionals provide more information than clients need or are ready to receive.

Focus on the concern heard in Step 1

Carefully focus your education to the concern you uncovered in Step 1. Not all women have the same concerns about infant feeding. Use your limited time to address her specific concerns. If you talk about concerns she has not expressed, you risk raising unnecessary doubts or concerns in her mind.

Note: When you use this strategy postpartum, it is important to address the concerns raised by the client **before** you provide anticipatory guidance on other topics.

Give information in small amounts

If you provide too much information, breastfeeding may sound complicated and you may overwhelm your clients. It also wastes your time. Provide information directly related to the concerns expressed. Clients are more receptive to information that addresses their particular needs. Focus on the “need-to-know” information and save the “nice-to-know” information for later. This teaching strategy also promotes learning and retention.

Talk about breastfeeding often

Plan several short conversations about breastfeeding instead of one long session. Research has shown that the number of times breastfeeding is discussed with each woman is more important than the total amount of time spent on breastfeeding education.

Benefits of Breastfeeding

Introduction Breastfeeding provides numerous benefits to infants, women, and society. It is often appropriate to discuss these benefits during counseling. A summary of documented benefits is provided below.

Benefits to infants Breastfeeding provides benefits to infants in the following ways:

- Creates a special bond between mother and infant,
- Decreases risk for certain types of infections and illnesses,
- Enhances dental development,
- Reduces risk for allergies,
- Aids in cognitive development,
- Reduces risk for SIDS,
- Decreases overfeeding, and
- Decreases the risk for obesity in later life.

Benefits to mothers Breastfeeding provides benefits to mothers in the following ways:

- Helps the uterus return to pre-pregnancy size faster,
- Reduces risk of breast, ovarian, and uterine cancers,
- Decreases risk for osteoporosis,
- Promotes postpartum weight loss,
- Enhances emotional health (especially for teenaged mothers),
- Saves money otherwise spent on formula and feeding supplies, and
- Reduces family healthcare costs (including out-of-pocket costs and services covered by insurance).

Benefits to society Breastfeeding benefits society in the following ways:

- Protects the environment by decreasing waste for landfills,
- Reduces parent days absent from work (breastfed infants are healthier),
- Improves the effectiveness of immunizations,
- Saves tax dollars spent on food and medical expenses by the WIC and Medicaid programs, and
- Improves the health of families.

Teaching tools

- *Breastfeeding Basics #1: Thinking about breastfeeding*
- *Breastfeeding: For all the right reasons*

Barriers to Breastfeeding

Introduction Most women are aware of the benefits of breastfeeding. However, the cost or barriers to breastfeeding may appear to outweigh the benefits to some women. Understanding the common barriers will improve your counseling.

Lack of social support Many women will not receive support to breastfeed from their family and friends. Some will get anti-breastfeeding messages at home because bottle-feeding is a cultural norm. Family and friends may not have been breastfed themselves or know anyone that has breastfed.

Counseling points: The most influential source of support and advice about infant feeding is a woman's mother. This includes choosing to breastfeed or formula-feed, starting solids, using supplemental formula, and weaning. A woman's partner is also influential. Include the woman's mother and mother-in-law, husband, and close friends in discussions about infant feeding.

Embarrassment Most women have concerns about breastfeeding in front of other people. They often fear criticism from family and friends and do not want to make others feel uncomfortable. For some women, this concern applies only to those outside of close family and friends. For others, breastfeeding in front of close family members is also of concern.

Counseling points: Help women try to overcome embarrassment by offering suggestions on covering up or finding a private location to breastfeed. Some women may be concerned about this issue during pregnancy, but find they are not worried about it after the baby is born.

Busy lifestyles Women worry that breastfeeding will take too much time and interfere with their social life or returning to work or school.

Counseling points: Women can combine an active lifestyle with breastfeeding. Breastfed babies are very portable, especially in the early months. Several options are available when mother and baby are separated, including pumping and storing breastmilk, nursing the baby during breaks, or using supplemental formula when apart.

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Barriers to Breastfeeding, Continued

Fear of pain

Women fear that breastfeeding will be painful, causing them to choose formula feeding or to discontinue breastfeeding prematurely. Fear of pain is of particular concern for teens.

Counseling points: Women need to know that breastfeeding is not supposed to hurt. When breastfeeding causes pain women need to seek help from a health care professional who is supportive of breastfeeding.

Diet and health restrictions

Some women are concerned that they will have to make major changes in eating, drinking, smoking and medication practices if they choose to breastfeed.

Counseling points: Women may interpret dietary recommendations strictly. If they believe they will be unable to follow those recommendations, they may choose formula feeding. Counsel women on current diet and health recommendations and provide accurate information.

Lack of confidence

Many women (especially first time mothers and mothers who experienced breastfeeding difficulties) lack confidence in their ability to nourish an infant through breastfeeding. They question their ability to produce an adequate milk supply and believe that breastfeeding will be difficult to learn.

Counseling points: Women need to know that their feelings are common and shared by many other women. A basic understanding of how milk production works helps new breastfeeding mothers feel more confident in their ability to feed a baby. Provide breastfeeding information at several contacts, rather than all at once, to make breastfeeding seem manageable and practical.

Teaching tools

- *Encouragement: Give a breastfeeding mom your loving support*
 - *Embarrassment? Don't shy away from breastfeeding*
 - *Busy moms: Breastfeeding works around my schedule*
-

Contraindications to Breastfeeding

Introduction

Human milk is superior for infant feeding. However, there are rare situations when breastfeeding is not in the best interest of the infant.

Situations that contraindicate breastfeeding

Breastfeeding is not recommended in the following situations:

- Infant has galactosemia
- Mother uses illegal drugs
- Mother has untreated active tuberculosis
- Mother has tested positive for human immunodeficiency virus (HIV)

Note: It is critical for each pregnant woman to know her HIV status in order to make an informed decision about infant feeding. Women who do not know their HIV status should be encouraged to undergo testing to confirm their HIV status.

Maternal drugs that are contraindicated during lactation

Although most prescribed and over-the-counter drugs are safe for the breastfed infant, there are a few that mothers may need to take that may make it necessary to interrupt breastfeeding temporarily. These drugs include:

- Radioactive isotopes,
- Antimetabolites,
- Cancer chemotherapy agents,
- Some thyroid medications, and
- A small number of other medications.

Excellent references by Hale and Briggs are available that provide helpful and detailed information about medications and breastfeeding. See Chapter 2 for more information about nursing when ill and for recommended resources about medications during lactation.

Breast Changes During Pregnancy

Introduction The hormones of pregnancy cause several changes in the breast tissue. The primary effects of the major hormones are listed below:

- Estrogen stimulates the ductule system to grow.
- Progesterone increases the size of the alveoli and the lobes.
- Prolactin contributes to the growth the breast tissue during pregnancy.

Normal changes During pregnancy, the breasts grow larger, the skin appears thinner, and the veins become more prominent. The size of the areola also increases. As the nipples become more erect, the pigmentation of the areola increases (becomes darker) and the glands of Montgomery enlarge and become more visible. Ask women the following questions:

- “Have your breasts become larger during your pregnancy?”
- “Have you experienced any breast tenderness or soreness?”

Note: If a woman doesn’t experience these changes, refer her to her a lactation consultant or a health care provider for evaluation.

Breast care during pregnancy The best preparation for breastfeeding is to do as little as possible to the breasts. Advise women to:

- Wash their breasts with water only because soap may cause dryness, and
- Buy a comfortable cotton supportive bra.

Note: For women with pierced nipples or nipple rings, special attention should be paid to any unusual drainage or inflammation.

Teaching tool • *Breastfeeding Basics #1: Thinking about breastfeeding*

Breast and Nipple Assessment

Introduction Prenatal assessment of the breast is important to identify potential factors that could interfere with lactation without early intervention or follow-up. Ask if her health care provider examined her breasts and provided any guidance about preparation for breastfeeding, then follow-up with appropriate reinforcement or additional information. This section provides general guidance for conducting breast and nipple evaluation.

Breast exam Breast exams should include visual inspection and palpation. Nurses and lactation consultants practicing as primary caregivers may do prenatal breast exams.

Size, symmetry and shape Size, shape and symmetry of breasts have little affect on lactation. However, marked asymmetry may indicate a problem and should be followed up closely during the early weeks of breastfeeding.

Incisions and scar tissue The presence of incisions or scar tissue indicates the need for further evaluation. Some possible factors that interfere with milk production include:

- Breast biopsies, breast augmentation, breast reduction, lymphectomy, and laser surgery, depending on the surgical technique used;
- Major trauma to a breast (such as a burn or blunt trauma from a car accident), depending on the extent of the tissue damage; and
- Cancer and radiation treatment for breast cancer, depending on tissue damage and time period since treatment.

Note: Health care providers who do not do breast exams should include questions about these topics when discussing breastfeeding. These women may still be able to breastfeed, but will need follow-up to ensure that breastfeeding gets off to a good start.

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Breast and Nipple Assessment, Continued

Nipple assessment

Nipple assessment should also be a component of prenatal examinations. There is great variation in women's nipples. Some nipples protrude outward, some are flat, some are dimpled or folded, and some are inverted. A woman's nipples need to extend outward enough so that her infant can grasp and attach to the breast. The table below lists the steps in nipple assessment.

Step	Action
1	Discuss the importance of nipple protrusion for attachment. <u>Teaching tip:</u> Use a cloth breast model or pictures to demonstrate how inverted or flat nipples make it difficult for babies to latch on.
2	Ask her how her nipples respond to cold temperatures or try the pinch test to observe the nipple's response.
3	Provide appropriate information.

Using breast shells

Breast shells can help evert nipples. Shells with the smallest opening in the inner ring are worn inside the bra with the cone centered over the nipple. The cone gently forces the nipple to protrude while stretching the areola tissue.

Breast shells can be used during the second trimester. Encourage women to wear them for one hour at a time, twice a day, and gradually increase the length of time until she is wearing them 8-12 hours a day.

Note: If a woman starts to have uterine irritability (cramping or contractions), she should stop using the shells and contact her health care professional.

Teaching tool

- *Breastfeeding Basics #1: Thinking about breastfeeding*
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Planning for the Hospital Stay

Prior to delivery Encourage pregnant women to discuss their infant feeding plans with their baby’s health care provider before birth and to state their requests on the preadmission forms.

At the hospital Preadmission forms are sometimes lost or misplaced, so encourage women to restate their plans to breastfeed. Encourage women to discuss the key practices supporting breastfeeding in the table below with the nursing personnel and to request changes in standing orders as needed.

Practices supporting breastfeeding	Rationale
Nurse as soon as possible after birth	Babies are more likely to be alert and ready to feed the first few hours after birth.
Breastfeed every 1½ -3 hours	Frequent feeding establishes milk supply.
Do not offer a pacifier for the first 3-4 weeks or until breastfeeding is well established and then use it occasionally	Babies who use pacifiers in the early weeks and use them regularly feed less often and their feedings are shorter, interfering with establishing milk supply.
“Rooming in” or keeping the infant in the room as much as possible	These arrangements facilitate frequent nursing and establishing a good milk supply. It also helps mothers learn the subtle signs of hunger, and builds her confidence in her ability to breastfeed.
No supplemental bottles of formula or water unless medically indicated	Supplemental feedings in the early days of breastfeeding interfere with building milk supply. In the absence of medical complications, these feedings are unnecessary.
Ask about starting to use a breast pump	Mothers often need help learning how to use a pump. Some mothers need to begin pumping early to establish milk supply because their babies get off to a slow start.
Ask to see a lactation consultant or nurse knowledgeable about breastfeeding	Ask for help from staff with experience and education about breastfeeding.

Teaching tool • *Breastfeeding Basics #1: Thinking about breastfeeding*

Planning a Nursing Wardrobe

Introduction Encourage women to evaluate their wardrobe and plan ahead for the early weeks at home.

Bras Nursing bras are not necessary, but many women like them because they are convenient. Most pregnant women purchase new bras during pregnancy because their breasts increase in size. If women plan to breastfeed, purchasing nursing bras makes sense. Encourage mothers to buy their nursing bras during the third trimester to get the best fit. A nursing bra should provide good support, use cotton fabric in the cups, and have flap fasteners that can be opened with one hand.

Counseling point: Underwire bras are generally not recommended. The wires may place too much pressure on the breast and interfere with milk flow, contributing to plugged ducts.

Nursing pads Nursing pads help keep clothing dry. Disposable and washable pads are available. The most important thing is to use pads that do not have plastic liners. Plastic liners keep moisture close to the nipple and can lead to sore nipples.

Counseling point: Cotton handkerchiefs, cloth diapers, or other soft fabrics can be cut to the appropriate size and used as washable pads.

Clothing Loose-fitting clothing that can be pulled up from the waist is more conducive to discreet breastfeeding. Receiving blankets can also be draped over the baby at the breast to provide privacy.

Counseling point: Nursing clothes are available and some mothers find them convenient. However, they may be too expensive for some families. These clothing items are not necessary for a successful breastfeeding experience.

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Chapter 2

Getting Started

A breastfeeding woman needs to know basic information about breastfeeding. This chapter reviews how to get started, the importance of frequent feedings, how to tell if breastfeeding is going well, and tips for avoiding common problems.

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How Breastfeeding Works

Introduction The breast is a complex and efficient organ. It is composed of many parts that are involved with making and transferring milk to the nipples.

Alveoli The alveoli are the grape-like clusters of glandular tissue. Milk is made and secreted in the alveoli. Myoepithelial cells surround the alveoli. These cells cause the alveoli to contract when stimulated by oxytocin, expelling milk into the ductules and down into the ducts.

Ductules and lactiferous ducts The ductules are the branch-like tubules extending from the clusters of alveoli. Each ductule empties into larger ducts, the lactiferous ducts. These ducts widen under the nipple and areola to become lactiferous sinuses, where the milk collects.

Note: The baby's gums need to be positioned over the areola and the nipple to properly compress the sinuses for milk removal.

Prolactin and oxytocin The pituitary gland excretes the hormones prolactin and oxytocin.

- Prolactin is a milk-making hormone released into the blood stream between feedings. The level of prolactin increases with nipple stimulation during feedings. The alveolar cells make milk in response to the release of this hormone when the baby suckles at the breast.
- Oxytocin stimulates the myoepithelial cells to contract, pushing the milk to the baby as the baby suckles at the breast. This is called milk-ejection reflex or letdown.

Characteristics of breast milk The first milk present at birth is called **colostrum**. It is usually yellowish and creamy in appearance. Colostrum feedings are small in volume, appropriate for the small size of a newborn's stomach (15 cc or the size of a walnut).

Mature milk is produced after 2-3 days. It is thinner than colostrum and may appear to be slightly blue in color. The milk also changes during a feeding.

- Foremilk is the first milk baby receives during a feeding. It is thinner in appearance. Foremilk is high in lactose and low in fat.
 - Hindmilk is produced later during a feeding. It contains more fat and calories than foremilk, so it contributes to baby's feeling of satiety between feedings. It is essential for adequate weight gain.
-

How to Breastfeed

Body positioning

Good body positioning of mother and baby is critical.

- Mother should be in a comfortable position.
- Baby should be facing the breast (“chest to chest” or “tummy to tummy”).

Note: Baby should not be in a bottle-feeding position.

Putting baby to breast

The table below lists the steps for a mother putting her baby to breast.

Step	Action
1	Sit comfortably; remind her not to lean over the baby. Use pillows, rolled towels, or blankets to support mother and baby.
2	Hold baby with baby’s whole body (face, tummy and knees) facing her.
3	Support her breast with her hand held in the shape of a “C” or “U” (four fingers under the breast and the thumb on top of the breast) with her fingers behind the areola.
4	Stroke the baby’s cheek with the nipple until baby “roots” (turns toward the breast).
5	Lightly tickle the baby’s lower lip and chin with the nipple until: <ul style="list-style-type: none">• Baby opens mouth wide (like a yawn), and• Baby’s tongue is down and forward.
6	Quickly bring baby on to the breast while directing the nipple to the roof and the back of the baby’s mouth so that the areolar tissue is also in the mouth.
7	Continue to support the breast and hold baby close to maintain correct positioning (to avoid unnecessary pulling on the breast).

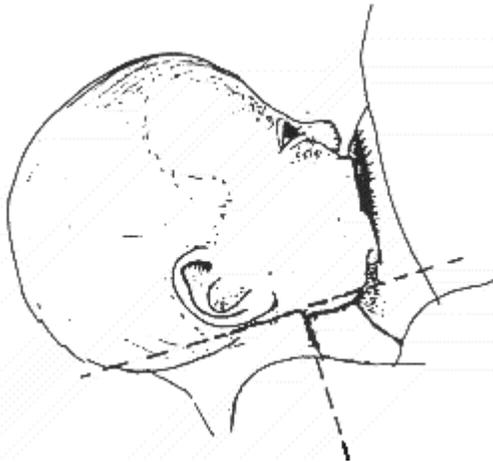
Note: Remove any nipple rings before feeding.

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How to Breastfeed, Continued

Figure 1

The figure below shows the baby's position at the breast.



Evaluating baby's latch

Teach mothers to evaluate baby's position at the breast.

- Most of the areola should be in baby's mouth.
 - The nipple should be centered in baby's mouth.
 - The lips should be turned out, not rolled in over the gums.
 - Baby's chin and nose should touch the breast.
 - Baby's tongue should be under the nipple.
 - Baby's cheek pads should not dimple with each suckle.
 - Smacking and clicking sounds are **not** normal with good latch.
-

When to try again

Remove baby from the breast and start the feeding over if:

- Baby is latched on incorrectly,
 - Mother is experiencing discomfort,
 - Baby is sucking in the cheek pads,
 - Baby is making smacking, clicking or sucking noises, or
 - Baby's suckling pattern slows and baby does not respond to tactile stimulation.
-

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How to Breastfeed, Continued

Teach different positions Teach breastfeeding mothers several feeding positions. Using more than one position every day will:

- Prevent unnecessary pulling on the breast,
- Keep baby positioned correctly,
- Help prevent nipple soreness,
- Promote more complete milk removal from the breasts, and
- Prepare mothers for nursing in a variety of situations.

Teaching tip Use visual aids such as a pocket guide or flip chart and a newborn-sized doll to teach and practice positioning.

Teaching tool • *Breastfeeding Basics #2: Getting started*

Frequency and Duration of Feedings

How often to feed During the first 2-3 weeks of life, breastfed babies need to feed every 1½-3 hours during the day and at night (8 or more times in 24 hours). Newborns often “cluster” feed during the late evening hours. They will have several closely spaced feedings (perhaps only 1-2 hours apart) and then take a long nap before feeding again.

Growth spurts & frequent feedings Baby’s appetite increases during growth spurts so baby will nurse more frequently for a few days. This frequent nursing increases mother’s milk supply to meet baby’s new needs. Typical times for growth spurts are:

- 2-3 weeks
- 6 weeks
- 3 months
- 6 months

Duration of feedings Newborns breastfeed 10-20 minutes on each breast every 1½-3 hours. Each baby is different, though. Some babies feed a short time and need coaxing to continue. Some babies feed happily for 20 minutes or more. Therefore, mothers must:

- Learn their baby’s cues for ending a feeding (the suckling pattern and swallows slow down, baby gradually relaxes hold on the nipple),
- Recognize when letdown occurs, and
- Observe her breasts softening during feeding.

Note: Mothers should not strictly limit nursing time.

Breast compression Breast compression may be used during feeding to continue the flow of milk when the baby no longer drinks on his or her own. Breast compression simulates a letdown reflex and may stimulate a natural letdown reflex. This technique may be helpful for encouraging the baby who falls asleep to continue suckling. It may also be helpful for sore nipples, recurrent blocked ducts and mastitis, poor weight gain, and colic. Breast compression allows the baby to get more milk and to get more hindmilk (the milk that is higher in fat).

Note: Breast compression is not necessary if everything is going well. When breastfeeding is going well, the mother should allow the baby to “finish” feeding on the first breast and, if baby wants more, offer the other breast.

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Frequency and Duration of Feedings, Continued

How to do breast compression

Breast compression is an easy technique to learn. The table below describes how to do it.

Step	Action
1	Sit comfortably; remind her not to lean over the baby.
2	Hold baby with baby's whole body (face, tummy and knees facing her).
3	Support her breast with her hand held in the shape of a "C" or "U" (four fingers under the breast and the thumb on top of the breast) with her fingers behind the areola.
4	Stroke the baby's cheek with the nipple until baby "roots" (turns toward the breast).
5	Lightly tickle the baby's lower lip and chin with the nipple until: <ul style="list-style-type: none">• Baby opens mouth wide (like a yawn), and• Baby's tongue is down and forward.
6	Quickly bring baby on to the breast while directing the nipple to the roof and the back of the baby's mouth so that the areolar tissue is also in the mouth.
7	Continue to support the breast and hold baby close to maintain correct positioning (to avoid unnecessary pulling on the breast).
8	When baby is no longer sucking, compress the breast with gentle pressure applied behind the areolar edge.
9	Maintain the "C" or "U" hold while applying rhythmic pressure. Baby should respond with long draws and swallowing. Baby may stop sucking momentarily but start again as milk starts to flow. If the baby does not stop sucking with release of pressure, wait a short time before compressing again. <u>Note:</u> Releasing the pressure allows the mother's hand to rest and the milk to start flowing to baby again.

Note: Remove any nipple rings before feeding.

Teaching tools

- *Breastfeeding Basics #2: Getting started*
- *Breastfeeding Basics #3: The early weeks*

How To Tell If Breastfeeding Is Going Well

Introduction Mothers who nurse frequently and use good positioning generally produce enough milk for their babies. However, many mothers worry about milk supply.

Barriers to frequent feeding Share information about the importance of frequent feedings. Some common barriers to frequent feeding include the use of the following:

- Supplemental formula,
- Water bottles,
- Pacifiers, and
- Letting baby sleep for several long stretches every day.

Note: These practices interfere with establishing milk supply and should be discouraged.

Indicators of milk supply Review the indicators of an adequate milk supply with each mother. The table below lists the indicators for the first week and related comments.

Indicator	Comments
Baby nurses \geq 8 times in 24 hours	It is optimal to stimulate both breasts during each feeding.
Mother can hear baby swallow during feedings	Some babies are noisy when they swallow while others are very quiet.
Breasts soften during feeding	---
Baby appears content after and between feedings	Beware of a sleepy baby who misses feedings (see Chapter 5).
Baby has \geq 6 wet diapers in 24 hours	Baby's urine should be pale in color.
Baby has 2-3 soft stools each day during the first 2 months	The stools look like cottage cheese and are mustard yellow in color.
<u>Note:</u> By 3 months of age, baby may have a stool once every 3-4 days.	<u>Red flag:</u> If baby is having dark meconium or green-brown transitional stools at 5 days of age, baby is probably not getting enough milk.
Baby gains 4-7 ounces each week	Encourage mothers to have baby's weight checked in the first week.
<u>Note:</u> By 2 weeks of age, baby should be at or over birth weight.	

Continued on next page

How To Tell If Breastfeeding Is Going Well, Continued

Frequent feedings build milk supply

The more often a woman breastfeeds, the more milk her breasts produce.

Remember, milk supply is not related to:

- Size of mother's breast,
 - Length of time between feedings, or
 - The appearance of the breast milk.
-

Teaching tools

- *Breastfeeding Basis #2: Getting started*
 - *Breastfeeding Basics #3: The early weeks*
 - *Did you know that giving formula to your baby can cause you to make less breastmilk?*
-

Breastfeeding Multiples

Introduction A woman can successfully breastfeed multiples. Encourage her to participate in support groups for families with multiples.

Review basics of breastfeeding Review information earlier in this chapter regarding the frequency and duration of feedings, positioning and latch, and how to tell if breastfeeding is going well.

Management strategies The following strategies can help mothers succeed with breastfeeding multiples:

- Take care of herself by getting adequate rest, eating a healthy diet, drinking enough fluid, and balancing household and family responsibilities.
- Accept help from friends and family members.

Feeding options The mother may choose to:

- Nurse two babies at the same,
- Nurse one baby at a time,
- Nurse one baby and feed the other(s) expressed breast milk, or
- Pump breastmilk and feed all babies expressed breastmilk.

Feeding rotations Mothers of multiples also use a variety of feeding rotations. This refers to whether or not each infant nurses at both breasts. Options include the following:

- Alternate breasts among infants at each feeding.
- Nurse each infant at one breast for a day, then move each baby to the other breast the next day.
- Nurse each infant on the same breast at every feeding.

Nursing positions Help mothers learn several nursing positions. Pillows, blankets and footstools may help support her arms and the babies and keep the mother in a comfortable position. Examples include the following:

- Hold two infants in cradle position.
- Hold one infant in the cradle position and the other in the football hold.
- Hold two infants in the football hold.

Continued on next page

Breastfeeding Multiples, Continued

Figure 2 The figures below depict positions for feeding two babies at the same time.



Parallel



Front V



Crossing



Football

Avoiding Common Breastfeeding Problems

Sore nipples Improper positioning at the breast often causes sore nipples. If a woman has nipple pain while she breastfeeds, she should take the baby off of the breast (breaking suction) and start the feeding over.

Note: See Chapter 5 for more strategies for managing sore nipples.

Engorgement At 3-5 days after a baby's birth, a woman's breasts may become heavy, sore, swollen, and feel warm. This swelling, or engorgement, can be avoided or decreased by:

- Nursing as soon as possible after birth,
- Feeding frequently around the clock, and
- Allowing baby to nurse long enough to soften the breast.

Note: See Chapter 5 for more strategies for managing engorgement.

Teaching tip Use a cloth breast model to demonstrate how to end a feeding and to show an example of an engorged breast.

Teaching tools

- *Breastfeeding Basics #2: Getting started*
- *Breastfeeding Basics #3: The early weeks*

Nursing When Ill

Introduction Breastfeeding mothers can continue nursing with most common illnesses such as coughs, colds, fever, or common diarrhea. These illnesses do not affect the quality of breast milk. If the illness lasts for several days or suddenly becomes worse, encourage her to call her health care provider.

Over-the-counter medications While most medications (such as pain relievers and cold and cough medicines) are compatible with breastfeeding, a single ingredient product is the best choice.

Recommendation: Encourage breastfeeding mothers to call their health care providers before taking any over-the-counter medications.

Prescription medications Only a few medications require interruption or discontinuation of breastfeeding, including the following:

- Chemotherapy,
- Therapeutic levels of radioactive elements, and
- Some thyroid medications.

Recommendation: Encourage breastfeeding mothers to remind their health care provider that they are breastfeeding so that a safe yet effective medicine is prescribed. Advise mothers to call their baby's health care provider to prevent unnecessary interruption of breastfeeding.

Reducing exposure to medications in breast milk

Breastfeeding mothers can reduce exposure to medications using the following strategies:

- Take the medication just after nursing or right before the infant sleeps for a long stretch of time.
 - Avoid long-acting preparations.
 - When short-term interruption is the best choice, maintain milk supply by expressing breast milk using a pump or hand expression and discarding it.
-

Smoking and Breastfeeding

Introduction Breastfed infants of mothers who smoke will be exposed to nicotine and other tobacco by-products through breast milk and passive smoke exposure. While cigarette smoking can limit milk supply, the benefits of breastfeeding outweigh the risks of smoking. Therefore, mothers who smoke should still be encouraged to breastfeed. Breastfed infants will be at less risk for respiratory infections than formula-fed infants because of the protective immunological constituents of breast milk. Environmental tobacco smoke exposure increases an infant's risk for wheezing and respiratory distress.

Reducing risks Smoking places all infants at risk for burns from falling ashes. Encourage parents and others to refrain from smoking while holding the infant.

The potential harm from tobacco by-products can be reduced. Encourage breastfeeding mothers and anyone else around the infant to:

- Decrease the number of cigarettes smoked or quit altogether.
 - Smoke outside or in a room away from the infant.
 - Smoke after breastfeeding or right before the infant sleeps for a long stretch of time.
-

Review signs of adequate milk supply Review with breastfeeding mothers the ways to tell if the infant is getting enough to eat (see page 28). This information will help reassure breastfeeding mothers that their milk supply is adequate.

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Credits for Figures in Chapter 2

- Figure 1: www.promom.org/features/gallery/clipart.htm
 - Figure 2: www.members.tripod.com/~breastfeedingtwins/MainPages/index.html
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Chapter 3

Nutrition and Exercise During Breastfeeding

Good nutrition is important for breastfeeding mothers and babies. This chapter reviews nutrition recommendations about foods, beverages, and vitamin and mineral supplements and provides guidance about maternal exercise.

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Food Recommendations for Breastfeeding Mothers

Introduction An adequate diet helps mothers feel good and handle the stresses associated with a new baby in the home.

Using the Food Guide Pyramid Breastfeeding women should consume at least 1800 calories/day to ensure an adequate vitamin and mineral intake. The servings listed in the table below meet this recommendation.

Food Group	Recommended servings/day
Grains, breads and cereals • Whole grains	6-9 including • at least 3
Fruits and juices • Citrus, melon and berries	2-4 including • at least 1
Vegetables • Dark green or deep yellow • Starchy vegetables	3-5 including • at least 1 • at least 1
Milk, yogurt and cheese	3
Meat, fish, poultry, eggs, dried beans and peas	7 ounces/day
<p><u>Note:</u> The following equal a 1-ounce serving of meat:</p> <ul style="list-style-type: none"> • 2 Tbsp. peanut butter • ½ cup cooked dry beans or peas • 1 egg 	

Vegetarian diets during lactation Vegetarian diets that include some animal products such as poultry, seafood, milk products and eggs present no special problems for breastfeeding mothers. However, vegetarian diets that include no animal products are inadequate in vitamin B12. Therefore, a vitamin B12 supplement is recommended for breastfeeding mothers who do not eat animal products.

Note: Special attention may need to be paid to calcium intake for mothers who do not consume milk or other dairy products.

Continued on next page

Food Recommendations for Breastfeeding Mothers, Continued

Energy balance Rapid weight loss (defined as >4.5 pounds/month) in the early weeks of lactation may interfere with ability to establish an adequate milk supply.

Recommendation: Encourage breastfeeding women to wait until milk supply is established before restricting calorie intake or doing high intensity physical exercise. A calorie intake of 1500 calories/day will provide adequate vitamins and minerals if wise food choices are made.

Vitamins and minerals Most breastfeeding women can meet their vitamin and mineral needs from a varied diet. Selective vitamin or mineral supplementation may be warranted based on individual diet assessment.

Recommendation: Vitamin or mineral supplements may be needed if intake is severely limited by food preferences, food resources, or individual medical history. For women who choose to use supplements on their own, recommend supplementation at no more than 100 percent of the RDA.

Special note about folic acid: Every woman capable of becoming pregnant should take a folic acid supplement or eat a fortified breakfast cereal every day that provides 100% Daily Value for this vitamin. Adequate folic acid intake reduces the risk for neural tube birth defects. Folic acid also helps prevent heart disease and cancer.

Fluid Recommendations for Breastfeeding Mothers

Introduction An adequate fluid intake (8-10 cups/day) helps breastfeeding mothers maintain their health. However, some beverages should be limited because of concerns about some ingredients.

Recommended fluid intake Breastfeeding mothers often report feeling thirstier. Fluid intake is not related to milk volume or milk supply.

Recommendation: Drink to satisfy thirst. Choose nutrient-dense beverages (milk and 100 percent fruit juice) and water to meet nutrition and fluid needs before choosing carbonated beverages and other less nutrient-dense fluids (carbonated beverages and fruit drinks).

Alcohol There is no scientific evidence that consuming alcoholic beverages has any beneficial impact on lactation performance.

Occasional consumption of alcohol in quantities up to 0.5 grams of alcohol per kilogram maternal body weight is compatible with breastfeeding. Routine intake over this level (≥ 2 drinks/day) may impair the milk ejection reflex (or letdown). Binge drinking (≥ 5 drinks on the same occasion) may adversely affect infant psychomotor development and result in slow weight gain or failure to thrive.

Recommendation: Limit alcohol intake to occasional use. If a mother does drink, limit alcohol intake to ≤ 1 drink per day (a drink equals 1½ ounces of liquor, 1 can of beer, or 5 ounces of wine). Advise mothers to wait 2 hours after drinking before breastfeeding their babies. “Pumping and dumping” expressed breastmilk is not necessary.

Continued on next page

Fluid Recommendations for Breastfeeding Mothers, Continued

Caffeine

Caffeine passes readily into breast milk. Heavy caffeine use may increase irritability and cause poor sleeping patterns for infants.

- Decaffeinated coffee and tea products may not be the best substitute. Some manufacturers use a chemical process to produce decaffeinated beverages. The safety of this process has been questioned.
- Caffeine-free carbonated beverages are an option. However, they should still be used in moderation because they may displace other choices that provide important nutrients.

Recommendation: Limit coffee and other caffeine-containing beverages (teas and carbonated beverages) to the equivalent of 2 cups of brewed coffee per day. See the table below.

Beverage	Caffeine (mg)
8 oz. cup of brewed coffee	100
8 oz. cup of instant coffee	75
8 oz. cup of decaffeinated coffee	3
8 oz. cup of brewed tea	40
8 oz. cup of hot chocolate (from 1 pkg. of instant mix)	6
12 oz. can of diet or regular soft drink containing caffeine (read the ingredient list on the label)	45

Herbal teas and other products

Herbs are inconsistently regulated when used as food products. Occasional use of herbal teas appears to be safe.

Recommendation: Use herbal teas packaged in filtered bags and limit to a few servings/day. Discourage the use of other herbal preparations and supplements.

Aspartame

The sugar substitute aspartame is digested as protein, so it presents no risks for healthy newborns. However, mothers who are consuming several servings of beverages or foods containing aspartame may be over-restricting their calorie intake and consuming inadequate amounts of key nutrients.

Recommendation: Limit use of aspartame-containing foods to 2 servings/day to encourage adequate intake of calories and key nutrients.

Food Myths

Introduction

Contrary to popular belief, there are no foods that a breastfeeding mother must eat or must avoid. Maternal diet can influence the color and taste of breastmilk. A varied maternal diet may better prepare an infant for beginning solid foods because of these subtle flavor changes.

Ruling out problem foods

If a breastfeeding mother believes that a specific food is causing distress for her baby, ask the following questions to rule out other probable causes:

- Does she feed baby anything other than breastmilk?
- Is anyone else caring for baby and offering other foods?
- Does she smoke?
- Is she taking any medications?
- Is she drinking caffeine- or alcohol-containing beverages?
- Is she or her baby taking any vitamin or herbal supplements?

If the answer to all of the questions is no, advise the mother to limit the suspected food for 3-4 days and observe her baby's response. Then advise her to reintroduce the food into her diet to see if her baby experiences the same distress. If baby is fine, there is no need for maternal diet restriction. If baby is distressed, advise the mother to limit or avoid the food.

Maternal Exercise and Breastfeeding

Introduction Moderate exercise is appropriate and safe for the breastfeeding woman. There are usually no contraindications to exercise in moderation during lactation. The greatest obstacle is usually finding time to exercise.

Exercise and milk supply Some mothers are concerned that exercise will interfere with milk production. However, exercise has little impact on milk production.

Change in taste of milk Several years ago a study reported that a breastfeeding baby may refuse to nurse immediately after exercise. The women in this study exercised to their maximum, resulting in higher lactic acid concentrations than would be measured in the breastmilk of women who exercise moderately. Therefore, altered acceptance or refusal of breastmilk after exercise is not likely to be a problem in most situations.

Weight loss and exercise Exercise usually increases appetite, so breastfeeding mothers often increase their food intake accordingly. Therefore, exercise by itself will not necessarily result in weight loss.

If a breastfeeding woman loses weight too quickly, she may experience more problems with fatigue. Encourage breastfeeding mothers to lose weight gradually.

Finding time to exercise Lack of time often makes exercising seem impossible for a new mother. Suggest ways to combine exercise with other activities she can do with her baby such as:

- Walking with baby in a stroller or baby carrier outdoors or in a shopping mall.
- Exercise videotapes or books intended for a mother to exercise along with her baby.

Note: A supportive bra will make exercising more comfortable for the breastfeeding mother.

Vitamin and Mineral Recommendations for Breastfed Infants

Introduction Breastfeeding is recommended for at least the first year of life. Exclusive breastfeeding meets the nutrient needs of infants for the first 6 months. Therefore, vitamin and mineral supplements are not needed until about 6 months of age.

Iron Before 6 months of age, supplementation is only needed if the infant has been diagnosed with anemia.

Infants that sit with support, keep their heads steady, turn their heads away when full, and reach their hands to their mouths are developmentally ready for solid foods. This often happens around 6 months of age. Recommend introduction of a regular source of iron, preferably in a supplementary food such as iron-fortified infant cereal or pureed meats. Two servings a day will meet daily iron requirements (a serving equals 5-6 tablespoons of dry cereal mixed as desired with expressed breast milk or formula).

Note: If an infant cannot consume adequate iron from dietary sources after 6 months of age, a supplement of 1 mg/kg/day elemental iron is recommended.

Vitamin D A supplement of 5.0-7.5 micrograms/day (400 IU/day) is recommended for breastfed infants who:

- Receive inadequate sunlight exposure,
- Have darker-pigmented skin, or
- Have mothers who are vitamin D deficient.

Note: Adequate sunlight exposure for Caucasian infants is 30 minutes/week if clothed only in a diaper or 2 hours/week if fully clothed with no hat.

Fluoride Fluoride supplementation is based on the infant's age and the fluoride content of the household's drinking water as follows:

- Before 6 months of age, no supplementation is recommended.
- After 6 months age, a supplement is recommended if the drinking water is <0.3 parts per million (ppm) fluoride. Consult baby's health care provider or family dentist about the need for a prescription.

Note: When the infant begins to consume any fluoridated water, discontinue the supplement.

Fluid Recommendations for Breastfed Infants

Water

Healthy breastfed infants do not need additional water until they begin to consume solid foods with a high protein content. Water is needed to dilute the renal solute load of the protein-rich foods.

Recommendation: Offer 1-2 ounces of water from a cup with meals when infants begin to eat solid foods containing protein. Limit water to 4-8 ounces/day. Consult the baby's health care provider when breastfed infants are ill with a high fever, vomiting or diarrhea. Oral rehydration therapy may be needed.

Formula supplements

Supplements such as water, glucose water, and formula should not be given to breastfeeding newborns unless medically indicated. Preferably, formula supplements should be used only after breastfeeding is well established.

Note: For infants less than 12 months old, only iron-fortified formula should be used to supplement breastfeeding.

Introducing New Foods to Baby

Introduction Early introduction of solids may decrease nursing time, affect milk production, and predispose an infant to allergies. Infants should be developmentally ready for solid foods (able to sit up, turn toward and away the spoon, and swallow the food). Encourage parents to wait until about 6 months of age to introduce solid foods.

General rules Recommend the following feeding practices to reduce the risk for food allergies and to keep food safe.

- Feed solid foods from a spoon. Do not feed food in a bottle or an infant feeder. Babies need to learn how to eat from a spoon and move the food in the mouth to swallow it.
- Introduce only one new food at a time and wait several days before trying another new food.
- Offer single ingredient foods until baby has tried each food. Then offer foods like mixed cereals or combination table foods (like casseroles).
- Make or buy chunkier foods as baby’s chewing skills improve.
- Use a child-size cup. Babies need to learn to drink from a cup so limit the use of spill-proof cups.

Foods to avoid Wait until the first birthday to offer foods that:

- Can cause allergies. These foods include egg whites, shellfish, nuts (especially peanuts and peanut butter), and cows’ milk.
- Contain honey. This includes honey graham crackers and other baked goods with honey as an ingredient. Honey may contain botulism spores and cause babies to be very ill.

Typical intake at 6-7 months The first solid foods should be iron-rich foods to meet the growing baby’s iron needs. The table below describes the typical food intake.

Food	Amount per day
Breastmilk	5-6 feedings
Infant cereal	1-2 servings
Fruit juice from a cup	2 oz. per day

Note: Breastmilk continues to be the primary source of nutrition. Too much fruit juice can cause diarrhea or reduce baby’s appetite for other foods.

Continued on next page

Introducing New Foods to Baby, Continued

Typical intake at 9 months

By 9 months of age, infants should be consuming a variety of foods. The table below describes the typical food intake for infants of this age.

Food	Amount per day
Breastmilk	4-6 feedings
Infant cereal	4-8 tbsp. dry cereal
Fruit juice from a cup	2-4 oz.
Other grain products (dry cereal, crackers)	1-2 servings
Plain mashed or soft vegetables	2-8 tbsp.
Plain mashed or soft fruits	2-8 tbsp.
Strained meats and egg yolks	Up to 3 tbsp.
Water from a cup	2-4 oz.

Note: Breastmilk continues to be the primary source of nutrition for breastfed babies. Solid foods provide learning experiences with flavors and textures.

Typical intake at 12 months

By 12 months age infants should be eating mashed or soft foods. The table below describes the typical food intake for infants of this age.

Food	Amount per day
Breastmilk	4-6 feedings
Infant cereal	4-8 tbsp. dry cereal
Other grain products (pasta, bread, crackers)	2-3 servings
Fruit juice from a cup	4 oz.
Soft fruits	4-8 tbsp.
Soft vegetables	4-6 tbsp.
Chopped or soft protein foods (poultry, beef, pork, cheese, cooked dried beans and peas)	2-8 tbsp.
Water from a cup	4-8 oz.

Baby food

The number of tablespoons in the different sized jars of baby food are:

- 2½ oz. jar = 4 tbsp.
 - 4 oz. jar = 6 tbsp.
 - 6 oz. jar = 9 tbsp.
-

Teaching tool

- *Food For Baby*
-

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Chapter 4

Combining Breastfeeding With Employment or School

Hand expression and breast pumps can be effective tools in assisting some mothers to breastfeed. Most women, in normal circumstances, can establish and maintain lactation without using a breast pump. This chapter discusses how to continue breastfeeding when mothers and babies are separated due to employment or school. Feeding options combining breastfeeding and bottle-feeding are reviewed. Weaning is also briefly addressed.

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Feeding Options

Introduction Women use a variety of feeding patterns to accommodate separation from their babies yet still continue breastfeeding. Explore options and help women problem-solve how they can continue breastfeeding.

Feeding options The table below describes several possible feeding patterns for mothers.

IF the mother chooses to...	THEN she must...
Breastfeed when she is with the baby and collect and store breastmilk for feedings while separated	<ul style="list-style-type: none"> • Express and store some milk before returning to work or school to build an initial supply, and • Make arrangements for expressing and storing milk at work or school.
Nurse the baby during work or school	<ul style="list-style-type: none"> • Find a childcare provider close by, and • Make arrangements to go to the provider's site or for the provider to bring the baby to her.
Breastfeed when she is with the baby and formula feed while separated	<ul style="list-style-type: none"> • Nurse frequently when with the baby. <p><u>Note:</u> Mothers can exclusively breastfeed when with their babies and limit formula to the times they are apart.</p>

Suggestions for easing the transition The following suggestions may help ease the transition to work or school.

- Practice expressing milk as early as the first week of breastfeeding (use this milk when a bottle is first introduced or freeze for later use).
- Decide which feeding option to use at least three weeks before returning to work or school to allow time for weaning (if needed).
- Wait 3-4 weeks before introducing a bottle, so that milk supply is well established. Then offer a bottle-feeding once or twice a week. Gradually increase the number of bottle-feedings to the number needed while apart.
- Leave the baby with the childcare provider for a feeding.
- If feasible, return to work part-time.
- Return to work or school mid-week instead of on Monday.
- Ask for and accept help with other household responsibilities.

Teaching tools

- *Breastfeeding Basics #5: Returning to work or school*
- *Busy moms: Breastfeeding works around my schedule*
- *Did you know that giving formula to your baby can cause you to make less breastmilk?*

Planning Ahead During Pregnancy

Introduction It takes some extra planning to combine breastfeeding with employment or school, but the benefits are worth it. Discuss key issues with mothers during their pregnancy to help them with their planning.

Maternity leave and return to work or school The length of time that a woman has for maternity leave varies. Some women may have as little as 2 weeks while others could have several months off. Women need to think through their return strategy while they are pregnant. Questions that women need to explore during pregnancy are:

- What is the company or school policy about maternity leave?
- Are options available such as flextime, part-time, job sharing, working fewer but longer days (i. e. four 10-hour days), or a reduced class schedule?
- Is childcare offered on site?
- Is there a policy at work or school about breastfeeding?

Making the transition Once a woman has decided when she will return to work or school then the next decision is how to make the transition comfortable. Returning should be a gradual process, if possible. For example, a part-time schedule for the first few weeks can be helpful. Returning mid-week can also ease the transition.

Where to express milk When women discuss the breastfeeding policy of their company or school, the question of where to pump needs to be addressed. Some companies and schools have lactation rooms. Other options include a private office, a nurse's office, on-site childcare, or another comfortable and private place.

Getting support from supervisor and peers Breastfeeding support from supervisors and peers is essential for a positive experience at work or school. How long a woman expresses breastmilk is related to the level of support she receives. Ideas for building support follow:

- Talk with the nurse, school counselor or another health care provider on site about pumping arrangements, schedule changes, and other issues.
- Network with other breastfeeding mothers to learn about their experiences and then share positive breastfeeding support policies and practices from other facilities with the supervisor or school counselor.
- Share information about the benefits of breastfeeding for a company including less staff turnover and happier employees. Breastfeeding benefits companies and schools by reducing the number of days absent due to infant illness.

Continued on next page

Planning Ahead During Pregnancy, Continued

Childcare options

Choosing childcare is an important task for every family. Breastfeeding mothers need a trusted provider who also understands and supports breastfeeding. Options include:

- Taking baby to work or school,
 - Leaving baby with a provider in the mother's home or the provider's home,
 - Taking baby to a childcare center, or
 - Arranging schedules so that one parent is always available to care for baby.
-

Interviewing providers

Encourage breastfeeding mothers to take time to interview several possible providers and to make at least one unplanned visit. Encourage mothers to choose a provider who:

- Provides a safe and nurturing environment for baby.
 - Encourages mother to breastfeed baby when she drops off or picks up baby rather than wait until mother and baby get home.
 - Knows how to safely handle and feed expressed breastmilk.
 - Understands how feeding frequency increases during growth spurts and the importance of alerting the mother immediately so that her pumping schedule can be adjusted accordingly.
-

Sample schedule for returning to work or school

A sample daily schedule for breastfeeding mothers and babies follows:

- Breastfeeding prior to leaving home or at the childcare site.
- Taking bottles to the day care provider (preferably expressed breastmilk).
- Expressing breastmilk during lunch and break times.
- Nursing the baby upon arrival at the childcare site or upon arrival home.
- Feeding on demand during the evening, night, and days off.

Note: Encourage mothers to call their childcare provider to discuss feeding options if they will be late picking up the baby. This helps providers cope with a hungry baby while still preserving the breastfeeding relationship.

Advocate for your clients

Lactation consultants and health care providers can advocate for their clients in other ways including the following:

- Writing letters to employers or human resource departments,
 - Providing references about the health benefits of continued breastfeeding,
 - Talking to key people at the worksite or school, and
 - Advising limited unplanned overtime due to its impact on breastfeeding.
-

Teaching Hand Expression of Breastmilk

Introduction For some women, hand expression meets their needs to maintain comfort or express milk for later feeding. Hand expression is an inexpensive and convenient technique.

Directions The table below lists the steps for using this technique.

Step	Action
1	Wash hands with soap and water.
2	Massage the breasts by: <ul style="list-style-type: none">• Applying gentle pressure with the fingertips while moving around the breast in a small circular motion, and• Working from the chest towards the nipple.
3	Position the thumb and two forefingers on opposite sides of the breast, about 1½ inches behind the nipple.
4	Hold a clean, wide mouth container in the other hand to collect milk. <u>Note:</u> A commercial milk collection funnel that attaches to a standard baby bottle is available.
5	Press inward (back) toward the chest and gently squeeze (roll) the thumb and fingers together.
6	Move the thumb and fingers around the entire areolar area to remove milk from all of the milk sinuses.
7	Switch breasts when the milk flow slows down (5-7 minutes) and repeat steps 1-6. <u>Note:</u> Most women are able to express enough milk in 20-30 minutes for a later feeding. However, hand expression can continue as long as desired if milk is still flowing.

Teaching tip Demonstrate the technique using a cloth breast model and ask the mother to do a return demonstration.

Teaching tool • *Breastfeeding Basics #5: Returning to work or school*

Evaluating Manual Breast Pumps

Introduction A manual breast pump meets the needs of many breastfeeding women who express milk when separated from their babies. Piston/cylinder pumps are effective for most women and easy to use. However, some women find one pump works better for them than other models. All manual breast pumps should be evaluated for safety, effectiveness, comfort, and convenience.

Ease of use The manual pump should be:

- Easy to disassemble and reassemble,
- Easy to clean using dish soap,
- Portable, and
- Comfortable to use.

Milk collection container The milk collection container should:

- Be easy to remove with minimal spillage,
- Hold a minimum of 4 ounces, and
- Be a plastic baby bottle or a disposable plastic bottle liner.

Technical function The manual pump should:

- Have more than one flange size available to accommodate different size breasts and nipples,
- Maintain adequate but not excessive suction throughout collection, and
- Be constructed so that the gasket does not come in contact with breastmilk.

Print materials Print materials should:

- Include pictures or diagrams that support the written directions,
- Describe how to clean the pump,
- Be available in languages other than English, and
- Be written at an appropriate literacy level.

Do not recommend bulb suction pumps Bulb suction pumps (also called bicycle horn pumps) are not recommended.

- The bulbs are difficult to clean, allowing bacteria to grow in the bulb and contaminate expressed milk.
- These pumps can result in bruised breast tissue and nipple damage because the suction cannot be controlled adequately.

Evaluating Electric Breast Pumps

Introduction Electric pumps (including battery pumps) should be evaluated for safety, effectiveness, comfort, and convenience.

Ease of use Electric and battery pumps and their collection kits should be:

- Easy to disassemble and reassemble,
- Easy to clean using dish soap,
- Easy to convert to a manual pump, and
- Portable with a carrying case.

Milk collection container The milk collection container should:

- Be easy to remove with minimal spillage,
- Hold a minimum of 4 ounces, and
- Be a plastic baby bottle or a disposable plastic bottle liner.

Technical function The electric pump should:

- Regulate the amount of suction control,
- Alternate pressure setting during milk collection, and
- Automatically cycle at a minimum of 40 times per minute.

Note: Pumps for multiple users should minimize the potential for cross-contamination between users and use a closed system to prevent backflow.

Print materials Print materials should:

- Include pictures or diagrams that support the directions,
- Describe how to clean the pump,
- Be available in languages other than English, and
- Be written at an appropriate literacy level.

Electrical needs Electric pumps should:

- Use a standard electrical outlet and
- Have a UL approved power cord and plug.

Note: Encourage mothers using battery pumps to carry extra batteries with them. Rechargeable batteries may save money spent on batteries.

Using Breast Pumps

Introduction Breastfeeding women need accurate information about assembling, using and cleaning breast pumps and collection kits so they can succeed with milk expression.

General directions Although manual and electric breast pumps vary in their design and construction, women follow the same basic steps when using a pump.

Step	Action
1	Wash hands with soap and water.
2	Assemble the pump.
3	Breathe slowly and relax. Other relaxation techniques include: <ul style="list-style-type: none">• Playing soft music,• Listening to a recording of her baby cooing, or• Looking at a picture of her baby.
4	Massage the breasts by: <ul style="list-style-type: none">• Applying gentle pressure with the fingertips while moving around the breast in a small circular motion, and• Working from the chest towards the nipple.
5	Use hand expression first to promote milk flow (see Page 55).
6	Support the breast flange and breast with the same hand to help ensure good suction.
7	Center the nipple(s) in the flange and begin pumping on a low gentle suction level. For electric pumps, gradually adjust suction for comfort.
8	If using a single pump set-up, change breasts when milk flow slows down and repeat steps 1-6. <u>Note:</u> Pump each breast 2-3 times.
9	Clean the pump and collection container as recommended by the manufacturer.

Time needed to express milk Most women are able to express enough milk in 20-30 minutes for a later feeding. Using an electric pump, especially a double pump set-up, can decrease the amount of time needed to express milk to 10-15 minutes.

Continued on next page

Using Breast Pumps, Continued

**Help mothers
be realistic
about amount
expressed**

Women express varying amounts of breastmilk depending on the baby's age and the pump used. Remind mothers that the amount of breastmilk collected is not an exact indicator of milk supply. Mothers may not be able to letdown as easily when pumping. Breast pumps are not as effective as babies at removing milk from the breast.

Teaching tip

Demonstrate how to assemble and disassemble the pump, then ask the mother to do a return demonstration.

Teaching tool

- *Breastfeeding Basics #5: Returning to work or school*
-

Keeping Expressed Breastmilk Safe

Introduction Expressed breastmilk must be handled carefully to maintain its quality and safety.

Collection containers Expressed breastmilk must be collected and fed from clean containers. Encourage mothers to:

- Wash all bottles and nipples in hot soapy water,
- Label and date each container, and
- Double-bag milk collected in plastic feeding bags.

Note: Encourage mothers to limit the amount of milk put in containers to prevent waste.

Appearance of expressed milk Expressed breastmilk **does not** look like formula. Tell mothers that:

- It is normal to see color variation between different expressions of milk. Breastmilk varies in color based on several factors including the mother’s diet and the age of the infant.
- Expressed breastmilk often separates into layers with the fat rising to the top. When thawed, the layers can be mixed by gently swirling the feeding container until the layers are no longer visible.

Guidelines for storage Professional opinions differ regarding the length of time breastmilk can be safely stored. This document presents conservative recommendations to account for less than ideal storage conditions such as temperature fluctuations due to frequent opening or poorly functioning appliances.

IF the milk is stored in the...	THEN keep it as long as...
Refrigerator (at 39°F or lower)	48 hours after collection
Freezer section of a refrigerator with a separate door for the freezer	3 months
<u>Note:</u> If the freezer does not keep ice cream hard, it is not cold enough for breastmilk.	
Deep freeze (at 0°F or lower)	6-12 months

Note: These recommendations are for healthy infants.

Continued on next page

Keeping Expressed Breastmilk Safe, Continued

If refrigeration is unavailable If refrigeration is unavailable (at the mother's work or school site), expressed breastmilk may be kept in an ice chest or other cooler with a blue ice pack.

Note: Expressed breastmilk can safely sit at room temperature for 2 hours.

Thawing and warming expressed milk Breastmilk must be thawed and warmed under safe conditions to prevent growth of microorganisms, hot spots, and excessive nutrient losses. The table below lists recommendations for thawing and warming milk.

IF the milk needs to be...	THEN...
Thawed	<ul style="list-style-type: none">• Put the container in the refrigerator, or• Hold the container under cool running water.
Warmed	<ul style="list-style-type: none">• Set the container in a pan of warm water, or• Hold the container under cool running water and gradually increase the temperature to warm.

Safety precautions Recommend the following practices to keep the milk safe:

- Discard thawed milk after 24 hours in the refrigerator.
- Do not thaw milk at room temperature or in a microwave oven.
- Do not warm milk on the stove or in a microwave.

Feeding expressed milk Expressed breastmilk can be fed without the use of a bottle. Some mothers may choose other feeding methods such as a cup, dropper, or feeding syringe.

Teaching tool

- *Breastfeeding Basics #5: Returning to work or school*

Weaning Strategies

Introduction Breastfeeding is recommended for at least the first year. However, some mothers stop breastfeeding before their baby’s first birthday and need advice about weaning.

Replace one breastfeeding per day Gradual weaning is easier for mothers and babies. Start by replacing one breastfeeding per day with something else. Do this for a week, then replace one more breastfeeding per day. The first and last feedings of the day are usually the last feedings a child gives up. Encourage mothers to adjust the pace based on their comfort and their babies’ needs.

Note: If mothers need to wean quickly, they can replace more feedings each day. Abrupt weaning is not recommended, but may be necessary for a medical crisis.

Wean older infants to a cup Recommend weaning babies older than 6 months to a cup to prevent the need to wean from a bottle later.

Alternate feeding for babies Iron-fortified formula in a bottle or cup is recommended for babies who stop breastfeeding before their first birthday.

Breastfeeding substitutes for toddlers Recommend the following substitutes for missed breastfeeding sessions when a mother weans a toddler:

- Sips of water from a cup;
- Snacks such as crackers, cheese strips, or fruit;
- A favorite toy or blanket; or
- Offering comfort by singing, reading, holding or rocking that child.

Comfort measures for mothers Encourage mothers to use breast massage or express just enough milk to remain comfortable. During weaning, mothers may report that their breasts feel full or tender. If a mother reports a fever, flu-like symptoms, or redness in the breast, refer her to her health care provider.

Chapter 4 References

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Chapter 5

Solving Common Breastfeeding Problems

Women need basic information and guidance to manage common breastfeeding problems. Key problem-solving questions improve providers' assessment of breastfeeding problems. This chapter provides suggestions for managing common problems and identifies key client teaching tools.

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Basic History Taking

Introduction

Important information about the breastfeeding problem can be obtained during telephone follow-up. However, physical examination of both mother and baby and observation of a feeding are key to assessment of common breastfeeding problems and appropriate recommendations for intervention.

Feeding assessment

The following questions help identify the feeding pattern.

- How many times a day does your baby breastfeed?
 - Approximately how long does baby nurse on each breast?
 - Does your baby nurse vigorously or fall asleep during feedings?
 - Can you hear baby swallowing during feedings?
 - Is your baby taking anything besides breastmilk? If yes, what? How is it fed (cup, spoon, bottle, or supplemental nursing system)?
 - Are you using a breast pump?
 - How does your baby act after feedings?
-

Baby's output and status

These questions help you evaluate adequacy of intake.

- How many wet diapers do you change every 24 hours?
 - How wet are the diapers — are they just damp or soaked?
 - When was baby's last dirty diaper?
 - How many dirty diapers do you change every 24 hours?
 - What color are baby's stools?
 - Are baby's stools watery, loose, soft or firm?
 - Has your baby been weighed since birth? If yes, what were the birth weight and any follow-up weights?
-

Breast and nipple status

Information about breast and nipple soreness is also helpful.

- Do your breasts soften during feedings?
 - During feedings does milk drip from the side baby is not feeding from?
 - Do your nipples or breasts hurt during feedings? How long have they felt this way?
 - What do your nipples look like immediately after a feeding?
 - Are your breasts tender to the touch? How long have they felt this way?
 - Have you noticed any red or swollen areas on the breast, areola or nipple?
-

Continued on next page

Basic History Taking, Continued

Mother's status These questions help evaluate how the mother is coping.

- How are you feeling? How are you eating?
 - Are you resting when baby sleeps? Do you have any help at home?
 - Do you have a friend or family member who breastfed their children?
 - Do you feel sad or anxious?
 - Are you having trouble sleeping?
-

Engorgement

Introduction Three to five days after giving birth, a woman's breasts may become heavy, firm, swollen, and feel warm. With appropriate management, the woman will feel better in one to two days.

Potential causes Engorgement may be caused by:

- Missed feedings,
- Infrequent feedings,
- Incomplete feedings (due to a sleepy baby), or
- A change in feeding pattern as a result of supplementing or weaning.

Management strategies for comfort The following strategies may be used to make mothers more comfortable.

- Apply warm moist heat to breasts before nursing or pumping.
- Gently massage breasts (see Chapter 4).
- Hand express or pump to soften the areolar area.
- Apply cold packs or cabbage leaves for 10 minutes after every feeding to reduce swelling. Discontinue when breasts are comfortable and engorgement is no longer a problem.
- Wear a well-fitting, adjustable and supportive bra.
- Take acetaminophen or ibuprofen to reduce discomfort.

Management strategies for relief Frequent feeding is key to relieving engorgement and preventing its recurrence. Encourage mothers to breastfeed 8-12 times every 24 hours to keep the breasts soft. Additional strategies to relieve engorgement follow.

- Start feedings on the most engorged side first.
- Encourage vigorous infant suckling by using rhythmic breast compression or gently stroking baby under the chin to keep baby alert and focused on feeding.
- Use a variety of nursing positions (see Chapter 2).
- After feeding or pumping, mothers should examine their breasts by touch. If some areas of the breast remain uncomfortable and are still firm to the touch, she should pay attention to those areas during the next feeding by:
 - Massaging the breast before and during feeding, and
 - Using a nursing position where baby's nose is pointed to the firm area.

Teaching tool • *Breastfeeding Basics #4: Common concerns*

Plugged Ducts

Introduction A tender area or a painful lump in the breast may indicate a plugged duct. If the woman also has a fever, she may have mastitis (refer to page 71 for information about mastitis).

Potential causes A plugged duct may be the result of any of the following:

- Missed feedings,
- A change in feeding pattern,
- Inadequate milk removal,
- Using a limited number of feeding positions,
- Pressure of a mother's hand on her breast during feedings, or
- A bra or other clothing that places pressure on breast tissue.

Look for causes of pressure Check the fit of her bra and other clothing for pressure points.

- Underwire bras may cause enough pressure to result in a plugged duct.
- Sports bras that are moved away from the areolar area during feeding but still put pressure on the breast may cause a plugged duct.
- Wearing a tight-fitting bra during sleep may also put pressure on a duct. Although some mothers are more comfortable sleeping in a bra, it is not necessary to do so.
- During feedings in the side-lying position, limit the amount of clothing under the arm during feeding. A bunched up nightgown or shirt can place enough pressure on the breast to interfere with milk flow.

Management strategies for comfort Recommend the following strategies to women experiencing a plugged duct:

- Apply warm moist heat to the plugged area before nursing.
- Massage the plugged area before and during nursing (see Chapter 4).
- If the breast does not soften during feeding, hand express or pump enough milk to be comfortable. Save the milk for later use (see Chapter 4).
- Take acetaminophen or ibuprofen to reduce discomfort.

Continued on next page

Plugged Ducts, Continued

Management strategies for relief

Frequent feeding and allowing baby to feed until full are key to relieving plugged ducts. Encourage mothers to breastfeed 8-12 times every 24 hours to keep the breasts soft and milk flowing.

- Start on the breast with the plugged duct first.
- Position the infant so baby's nose is pointed toward the plugged area.
- Encourage vigorous infant suckling by using rhythmic breast compression or gently stroking baby under the chin to keep baby alert and focused on feeding.
- Hand express or pump milk instead of skipping or missing feedings.

Note: If the tender area or painful lump is not resolved after 24 hours, encourage her to call her lactation consultant or health care provider.

Teaching tool

- *Breastfeeding Basics #4: Common concerns*
-

Sore Nipples

Introduction Some nipple tenderness is normal during the early weeks of breastfeeding. Pain during feeding is not normal and requires follow-up to prevent early weaning. Women with flat or inverted nipples may be at increased risk.

Check nipples after feeding Immediately after feeding, nipples should appear moist, pink, rounded, and elongated. It is not normal for nipples to appear:

- Blanched,
- Bruised,
- Misshapen, or
- Pinched,
- Blistered,
- Creased.

Potential causes Sore nipples may be caused by:

- Improper positioning or poor latch,
- Disorganized suck,
- A yeast infection (thrush), or
- Poor tongue extension due to a short frenulum (tongue-tie).

Note: Thrush is a common yeast infection that affects mucous membranes. It can occur in both mothers and babies. If mother notices white patches in baby’s mouth, it may be thrush. If baby has a diaper rash, it may be a yeast infection. Both mother and baby need to be treated (see page 72).

Management strategies for comfort If a woman experiences sore nipples, recommend the following strategies:

- Wear breast shells to help keep the nipple dry and promote healing.
- Change nursing pads when they become wet to keep the nipples dry.
- Avoid plastic-lined pads.
- Use only water to clean nipples. Soap and alcohol are drying agents and may make the nipples sorer.
- Take acetaminophen or ibuprofen to reduce the discomfort.
- Put a few drops of colostrum or breastmilk on the areola and nipple after each breastfeeding to help with healing.
- Put a small amount of purified lanolin (lanolin intended for breastfeeding mothers) on the damaged nipple or areolar tissue after nursing to help retain the tissue’s natural moisture and promote healing.
- Discourage the use of other creams, ointments and salves.

Note: If not resolved within 48 hours, encourage her to call her lactation consultant or health care provider.

Continued on next page

Sore Nipples, Continued

Management strategies for feedings

Frequent feeding and good positioning are key to maintaining an adequate milk supply and preventing sore nipples.

- Review feeding position and latch to ensure baby is breastfeeding and not nipple feeding.
 - Encourage mothers to watch for baby's subtle signs of hunger and offer the breast. Delaying feedings may result in baby feeding more vigorously and causing more nipple damage or soreness.
 - If putting baby to breast is too painful, hand express or pump breastmilk at typical feeding times to maintain milk supply and allow healing. Use this milk for feeding.
 - Use a variety of feeding positions to vary the pressure points on the areolar and nipple tissue.
 - If baby falls asleep at the breast or mother needs to interrupt a feeding, break suction by inserting a finger in the corner of baby's mouth.
 - Limit the use of a pacifier.
 - If baby is grazing or nibbling instead of suckling, encourage vigorous suckling by using rhythmic breast compression or gently stroking baby under the chin. If baby does not resume vigorous nursing, break suction and reposition the nipple and areola in baby's mouth.
-

Teaching tool

- *Breastfeeding Basics #4: Common concerns*
-

Mastitis

Introduction When a woman experiences a fever of 101°F or higher, chills, achy flu-like symptoms, breast tenderness, redness, and swelling, mastitis should be considered.

Referral is needed Instruct any woman with these symptoms to call her lactation consultant or health care provider immediately. She may need antibiotics. If she doesn't feel any better after 48 hours of antibiotic treatment, instruct her to call her health care provider again.

Note: Instruct mothers that a yeast infection (vaginal or oral thrush) is a common side effect of antibiotic treatment. If she notices white patches in baby's mouth, a diaper rash, or she has sore nipples instruct her to seek treatment from either the baby's or her own health care provider. Refer to the following page for more information about thrush.

Management strategies for comfort The following strategies are recommended for maternal comfort.

- Apply warm packs to the affected breast before nursing and cool packs after nursing.
- Massage the affected breast before and during feedings.
- Use a variety of feeding positions to promote milk removal from all areas of the breast.
- If the breast does not soften enough during feeding to be comfortable to the touch, hand express or pump enough milk to be comfortable. Save the milk for later use (see Chapter 4).
- Maintain an adequate diet and fluid intake (see Chapter 3).
- Take acetaminophen or ibuprofen to reduce the fever and discomfort.

Management strategies for continuing breastfeeding It is rarely necessary to stop breastfeeding due to mastitis. Encourage mothers to feed frequently to maintain milk supply and for her comfort.

- Nurse frequently for a total of 8-12 times every 24 hours.
- Start feedings on the affected side first.
- Go to bed for 24 hours with the baby to promote frequent feeding.
- Ask for help with household tasks.

Teaching tool • *Breastfeeding Basics #4: Common concerns*

Thrush

Introduction Thrush or yeast is caused by an overgrowth of the fungal organism, *Candida*. A thrush infection can occur on a lactating woman's nipples, inside an infant's mouth, and in the infant's diaper area.

Physical signs The physical signs of thrush in infants include:

- White patches in the mouth and on the tongue that cling when attempts are made to wipe them off.
- A bright red bumpy diaper rash beginning at the rectum and spreading outward.
- General irritability and not breastfeeding well.

The physical signs of thrush in mothers include:

- Bright pink or red nipples. On rare occasions, white patches may be seen. The nipples may also have a shiny appearance.
- Complaints of severe burning or shooting pain within the breast and/or nipple.

Risk factors Thrush is caused by *Candida*. Potential risk factors include:

- Vaginal yeast infection,
- Nipple trauma,
- Previous antibiotic use,
- Mastitis or plugged ducts, and
- A baby with oral and diaper area thrush.

Treatment is needed When either the mother or infant show signs of a thrush infection, refer them to a health care provider for treatment. Thrush is easily passed back and forth from the infant's mouth to the mother's breast, making treatment for both essential.

Continued on next page

Thrush, Continued

Management strategies

The following strategies are recommended for maternal comfort and to decrease the opportunity for yeast to grow:

- Use disposable breastpads. Do not reuse breast pads; yeast grows well in a moist warm environment.
- Rinse nipples with warm water or a weak vinegar solution (1-tablespoon per cup of water) and air-dry them after breastfeeding.
- Spend a few minutes a day with the bra flaps down and nipples exposed to light.
- Discourage pacifiers because they can transfer yeast. If used, instruct to boil once daily for 20 minutes.
- Use freshly expressed breastmilk (if needed) during this time, but do not freeze expressed breastmilk for later use. Frozen expressed breastmilk can reintroduce yeast infection to the baby.
- Boil all bottles, bottle nipples, pacifiers and parts of the breast pump exposed to breastmilk once daily for 20 minutes.
- Instruct mother to apply topical medications to her nipples, areola, and infant's mouth and to continue medication use for the length of time prescribed (typical treatment is 10-14 days). It is not necessary to remove the medications from the nipples before breastfeeding.
- Instruct mother to consult her health care provider for additional treatment for herself if thrush persists.
- Good handwashing techniques, particularly after diaper changes, are critical to prevent cross-infection between mother and baby.

Note: Silicone-containing pacifiers and bottle nipples withstand boiling; latex products do not.

Teaching tool

- *Breastfeeding Basics #4: Common concerns*
-

Feeding Refusal

Introduction It is not unusual for an older infant to suddenly refuse to nurse. However, nursing strikes seldom lead to weaning. Many times no cause is found. With time, most infants will return to the breast.

Potential causes There are many potential causes for nursing strikes including the following:

- Teething;
- Infant illness (fever, ear infection, a cold);
- Menstruation or something in the mother's diet that changes the taste of the milk;
- A change in mother's deodorant, perfume or powder; and
- Distractions or noise during feedings.

Management strategies The following suggestions may help a mother:

- Continue to offer the breast patiently and gently.
- Watch for early signs of hunger and offer the breast before baby is crying and upset.
- Minimize distractions, light, and noise during feeding.
- Increase skin contact with the infant.
- Nurse more frequently when the infant is sleepy.
- If baby refuses the breast or feedings are shorter than usual, hand express or pump breastmilk. Offer the expressed milk by spoon, eyedropper, medicine spoon, or cup until breastfeeding resumes. This also helps maintain milk supply.

Note: It is important to review with mother how to determine if her infant's intake and output are adequate. See Chapter 2 for more information.

Biting During Feedings

Introduction

Sometimes infants will bite during nursing. This often occurs at the end of the feeding with non-nutritive sucking.

Management strategies

Suggestions for coping with biting include:

- End feedings when the infant loses interest in the feeding. This helps prevent biting done by the playful baby.
 - If the infant bites, remove the infant from the breast and tell the infant “no.” If baby is still hungry, offer the breast again. If biting continues, remove baby from the breast and end the feeding. Baby will soon learn that biting means breastfeeding will stop.
 - Hand express or pump breastmilk if a feeding is cut short due to biting. This helps maintain comfort and the mother’s milk supply.
 - If baby is teething and has swollen gums,
 - offer a clean cold or frozen washcloth or teething ring before feeding to provide comfort, and
 - massage the gums with a clean finger just before feeding.
-

Sleepy Newborn Infant

Introduction Many infants are sleepy during the first few days after birth. These infants may refuse to nurse or fall asleep after a few minutes of nursing. It is important to wake these infants and feed at least 8-12 times every 24 hours.

Potential causes Sleep patterns vary among newborn infants. The following factors may cause an infant to be sleepier than normal:

- A medicated birth,
- Early or preterm birth,
- Inadequate feedings, and
- Incomplete feedings.

Note: Frequent pacifier use during the early weeks can interfere with breastfeeding. Discourage a pacifier until milk supply is established (about 3-4 weeks).

Management strategies to wake baby Suggestions to wake baby for feedings follow:

- Undress the infant down to the diaper.
- Talk to the infant and gently rub the infant's arms, legs and back.
- Lightly stroke the infant's cheek, tap baby's lower lip and rub baby's head.

Note: Watch for early hunger cues such as arm and leg movements, bringing the hand to the mouth, and licking the lips. Crying is a late sign of hunger.

Management strategies during feedings Offer these suggestions to help keep an infant awake for feedings.

- Use a variety of nursing positions.
- Hand express some breastmilk into the baby's mouth.
- Change the infant's feeding position.
- Encourage vigorous suckling by using rhythmic breast compression or gently stroking baby under the chin. If baby doesn't resume vigorous nursing, break suction and reposition the nipple and areola in baby's mouth.
- Burp the infant. Avoid snuggling while burping to help keep baby awake.
- Change diapers after nursing at the first breast.

Note: If baby does not nurse vigorously, hand express or pump breastmilk to establish and maintain milk supply. Offer the expressed milk to baby or save it to feed later. See Chapter 4 for more information.

Continued on next page

Sleepy Newborn Infant, Continued

Red flags

Instruct the mother to call the lactation consultant or the infant's health care provider if the newborn infant continues to be very sleepy or if the infant:

- Has fewer than 4 wet diapers in 24 hours,
- Has fewer than 3 stools in 24 hours,
- Feeds less than 8 times/day, or
- Has lost ≥ 7 percent of birthweight.

Note: By 2 weeks of age, babies should be at or over birth weight.

Teaching tool

- *Breastfeeding Basics #2: Getting started*
-

Fussy Infant

Introduction

Babies are fussy for many reasons. Infant factors may include being too warm, wet diapers, gas before a bowel movement, the need to burp, fatigue, wanting to be held, or colic. Maternal factors may include overactive let down, oversupply, low supply, or maternal dietary factors.

Some infants are fussy during the first few weeks regardless of how they are fed. Therefore, breastfeeding mothers should not automatically blame fussiness on their breastmilk or milk supply.

Growth spurts

Infants may be fussier during growth spurts because they want and need to feed more often during these times. This change in nursing pattern is normal. It will take a few days of increased feeding frequency to increase milk supply to meet the baby's new needs. Growth spurts typically occur at the following times:

- 2-3 weeks
 - 6 weeks
 - 3 months
 - 6 months
-

Management strategies

Review potential barriers to frequent feeding and discuss indicators of an adequate milk supply (refer to Chapter 2 for more information).

Note: If the mother is still concerned about her infant, refer her to a lactation consultant or the infant's health care provider.

Teaching tools

- *Breastfeeding Basics #2: Getting started*
 - *Breastfeeding Basics #3: The early weeks*
 - *Did you know that giving formula to your baby can cause you to make less breastmilk?*
-

Newborn Jaundice

Introduction Newborn jaundice is a condition resulting in yellow skin and eyes. The baby may be sleepy with feedings. Management depends on the cause and bilirubin level. Management strategies should be coordinated with the infant's health care provider.

Potential causes Newborn jaundice may be caused by:

- Blood incompatibility,
- Inadequate feeding leading to delayed elimination of meconium,
- Infection,
- Hypoglycemia,
- Hypothermia, or
- Bruising.

Note: All newborn infants are at risk for jaundice due to their immature liver function, but premature infants are at even greater risk.

Management strategies The following recommendations may be appropriate to manage jaundice:

- Encourage the mother to tell her physician that she prefers to continue breastfeeding.
- Breastfeed frequently, for a total of 8-12 times every 24 hours. Frequent feeding helps the infant pass meconium stools.
- Hand express or pump milk if baby is too sleepy to nurse. Feed the expressed milk to the infant if the infant does not nurse vigorously.
- Refer to a lactation consultant.
- Jaundiced babies are often sleepy. Refer to the information about sleepy newborn infants earlier in this chapter for strategies to wake baby for feeding and to keep baby awake during feeding.

Ineffective or Weak Suck

Introduction Some infants have problems sucking effectively.

Potential indicators Ineffective or weak suck may be evidenced by:

- Inadequate output (the number of wet and dirty diapers),
- Slow weight gain,
- Nipple pain during or after feeding,
- Poor feeding pattern,
- Improper latch, or
- Refusal or inability to latch.

Referral is needed Refer the mother and baby immediately to a lactation consultant or the infant's health care provider.

Note: Many babies with an ineffective or weak suck are also sleepy babies. Refer to information about sleepy newborn infants earlier in this chapter for strategies to keep baby awake.

Chapter 5 References

- Johnston HA, Marcinak JF. Candidiasis in the breastfeeding mother and infant. *Journal of Obstetrics and Gynecological Nursing* 1990; 19(2): 171-173.
 - Lawrence R, Lawrence, RM. *Breastfeeding: A Guide for the Medical Profession*. St. Louis, MO: Mosby, Inc.; 1999.
 - Mohrbacher N, Stock, J. *The Breastfeeding Answer Book*. Schaumburg, IL: La Leche League International; 1997.
 - Newman J, Pitman T. *The Ultimate Breastfeeding Book of Answers*. Roseville, CA: Prima Publishing; 2000.
 - Riordan J, Auerbach KG. *Breastfeeding and Human Lactation*. Sudbury, MA: Jones and Bartlett Publishing, Inc.; 1999.
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Appendix A

Where to Go For Breastfeeding Support

Introduction Mothers need support during the early weeks of breastfeeding. It is helpful for them to know who to call with questions and concerns. Identifying sources of support may be one of the most important things health care providers can do for a breastfeeding mother.

Suggestions Discuss support systems in the community including the following:

- Family members or friends who have successfully breastfed,
- Local WIC program,
- Public health nursing agency,
- Local well child clinic,
- Postpartum Unit at the community hospital,
- Board certified lactation consultants (IBCLC),
- Certified breastfeeding educators,
- La Leche League,
- Community-based peer support groups,
- Hospital-based support group,
- Nurse midwives,
- Nurse practitioners, and
- Other health professionals who support and promote breastfeeding.

Community breastfeeding task forces Community breastfeeding task forces provide important support for health professionals and breastfeeding advocates. Check with the community hospital or the local WIC program to find the task force nearest you.

References

- Krishna V, Plichta S. The role of social support in breastfeeding promotion: A literature review. *Journal of Human Lactation*. 1998; 14(1): 41-45.
- Report of the National Breastfeeding Policy Conference. Eds. Slusser W, Lange L, Thomas S. UCLA Center for Healthier Children, Families and Communities (1999).

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Appendix B

Client Teaching Tools

Overview

Introduction This appendix describes the client teaching tools mentioned in this document and provides information about how to order the materials.

In this appendix The table below lists the contents of this appendix.

Topic	See Page
Print Materials from the Iowa WIC Program	85
Print Materials from Best Start Social Marketing, Inc.	86
Resources from the Iowa Lactation Task Force	87

Print Materials from the Iowa WIC Program

Introduction The Iowa WIC Program provides camera-ready copies of their print materials and sells materials at their printing cost. The numbered series features materials written at approximately the 7th grade reading level.

Titles available The table below provides a description of each title. The numbered brochures are also available from Iowa State University Extension Service.

Title	Topics addressed
#1 <i>Thinking about breastfeeding</i>	<ul style="list-style-type: none"> • Benefits of breastfeeding for mothers, babies and families • How breastfeeding works • Tips for learning how to breastfeed • Encouragement to ask for help and support
#2 <i>Getting started*</i>	<ul style="list-style-type: none"> • Step-by-step directions for starting and ending feedings • Positioning • How to tell if baby is getting enough
#3 <i>The early weeks*</i>	<ul style="list-style-type: none"> • Normal breast changes in the early days postpartum • Tips for preventing common problems (leaking, sore nipples, and uncomfortably full breasts) • Managing growth spurts
#4 <i>Common concerns*</i>	<ul style="list-style-type: none"> • Leaking • Sore nipples • Uncomfortably full breasts • Too little milk • Tender breast lumps • Breast infections
#5 <i>Returning to work or school*</i>	<ul style="list-style-type: none"> • Collecting breast milk for healthy babies at home • Hand expression and pumps • Storing/thawing/warming expressed milk • Different feeding pattern options
<i>Did you know that giving formula to your baby can cause you to make less breastmilk?</i>	<ul style="list-style-type: none"> • Waiting at least 2-3 weeks before feeding formula • Strategies for increasing milk supply • Getting through growth spurts

*Available in Spanish

How to order Call 1-800-532-1579 to request a preview copy and an order form. Single copies and camera-ready copies are available at no charge.

Print Materials from Best Start Social Marketing, Inc.

Introduction This series features three titles in English and Spanish and includes materials with graphic design elements appropriate for the Native American population. Developed using social marketing research, these leaflets focus on common concerns or misperceptions about breastfeeding. Written at approximately the 7th grade reading level, these leaflets convey a supportive conversational tone. These leaflets are available at purchase cost from the Iowa Department of Public Health or can be ordered directly from Best Start Social Marketing, Inc. Posters with the same key messages are also available.

Titles available The table below provides a description of each title.

Title	Topics addressed
<i>Busy moms: Breastfeeding works around my schedule</i>	<ul style="list-style-type: none">• Reinforces that busy moms can breastfeed with a little extra effort• Wait for 2-4 weeks before giving a bottle• Learn how to “express” milk• Ask for support
<i>Embarrassment? Don’t shy away from breastfeeding</i>	<ul style="list-style-type: none">• How to feel comfortable breastfeeding anywhere• Using a blanket• Finding a quiet place• Focusing on breastfeeding as what’s best for your baby• Seeking support from family and friends
<i>Encouragement: Give a breastfeeding mom your loving support</i>	<ul style="list-style-type: none">• Breastfeeding is special for everyone in a baby’s life• Tips for supporting new moms• Getting breastfeeding off to a good start

How to order Best Start Social Marketing
4809 E. Busch Blvd., Suite 104
Tampa, Florida 33617

Phone: 813/971-2119 or 800/277-4975
Fax: 813/971-2280

Resources from the Iowa Lactation Task Force

Introduction The Iowa Lactation Task Force produces a number of materials.

Titles available The table below lists other titles available and provides a description.

Title	Description
Prenatal Breastfeeding Class Outline	Sample class outline.
Basic Breastfeeding Class Outline	Sample class outline for classes held in the first 24 hours after baby's birth.
Breastfeeding Resources*	List of organizations and individuals with resources for client education and professional education.
Videotapes on Breastfeeding*	Annotated list of recommended videotapes.
Breastfeeding Bookfinder	Annotated list of books recommended for consumers.
Development of Supportive Hospital Policy*	List of organizations with materials about developing hospital policies that support breastfeeding.
Mother Feeding — Hospital Door Tag	A camera-ready copy to print your own door tags to help decrease feeding interruptions during already short postpartum stays. Includes a fact sheet with suggestions about using the door tag in your facility.
Postpartum Breastfeeding Follow-up Phone Questionnaire	Sample phone questionnaire to follow-up in the first 2-5 days after baby's birth.
Lactation Educator and Consultant Training and Certification Programs*	List of training programs.
Things to Consider When Starting a Peer Support Program	List of considerations for communities or organizations thinking about developing a peer support program.
Breastfeeding in the 1 st Week: A Counseling Guide for Health Care Professionals	Counseling messages to help women get breastfeeding off to a good start <u>Note:</u> This laminated guide is intended for health care professionals' use, not for consumers. \$1.00 per copy.
Things to Consider When Starting A Community-based Coalition	Summary of the advantages of collaborating with others. Includes a list of suggested task force members.
Referral Resources*	List of IBCLCs living or working in Iowa who are willing to accept client referrals and information about finding the La Leche League leader closest to you.

*Updated yearly

How to order Call the Bureau of Nutrition and WIC at 1-800-532-1579 for an order form.

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