

Level II:

WIC Certification Program



Breastfeeding Module

And Resource Manual

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Preface

As you will soon discover, providing breastfeeding education and information can be one of the most rewarding parts of your job. Through providing education, encouragement, and support, WIC staff empowers women to make an informed infant feeding choice that lasts a lifetime.

Participants do listen to what you are saying and value the information they receive from WIC. Therefore, it is important that all WIC staff take the time to build their skills in providing breastfeeding education and support.

This breastfeeding training module will help you gain the knowledge necessary to educate WIC participants, their families, and friends on the many benefits of breastfeeding, as well as provide information to support a successful breastfeeding experience.

This module, developed by a group of your fellow WIC staff, was designed to be interactive, fun, and educational! Learning activities include doing observations, viewing videos, reading, and many other activities.

How to Use This Module

Pace yourself - take time to complete all of the activities and to enjoy your learning process. Make a schedule for yourself that is realistic. The module has seven learning sections with many activities. The module incorporates portions of the USDA breastfeeding training, *Using Loving Support to Grow and Glow in WIC*. As you proceed through the module you will be linked to corresponding videos of the training. To help you keep on track, each section contains activities to help you review. The number and types of activities vary from section to section.

Section I: Introduction

Why Promote Breastfeeding?

Breastfeeding benefits a community and a nation! Breastfeeding is the normal and preferred way to feed infants! Breastfed infants are healthier than formula-fed infants and moms who breastfeed lower their risk for some diseases. Breastfeeding saves health care costs because breastfed babies have fewer illnesses and hospitalizations. Breastfeeding is good for the environment because there are fewer cans, bottles, and nipples to throwaway and no fuels are needed to manufacture and transport it. Breastfeeding saves businesses money because healthier babies mean less absenteeism and lower health care costs for working moms. Breastfeeding is the standard!

WIC's Breastfeeding History

The WIC Program has always been an avid promoter of breastfeeding. In 1989, the United States Congress strengthened WIC's efforts by allocating funds specific to breastfeeding promotion and support. In addition to funding, Congress included legislation requiring WIC Programs to:

- Develop a national breastfeeding definition
- Designate a breastfeeding coordinator in each state agency
- Train local WIC staff to promote and support breastfeeding
- Develop standards to ensure all women have access to breastfeeding promotion and support during the prenatal and postpartum periods
- Provide materials in languages other than English as indicated by the population served

Since 1989, WIC Programs nationwide have implemented numerous activities and programs to increase breastfeeding rates among the WIC population. In fact, during the last two decades, breastfeeding rates have continued on a steady rise among WIC mothers.

WIC Can and Does Make a Difference!!

Breastfeeding Rates

WIC strives to achieve the Healthy People Year 2020 Breastfeeding Objectives of having:

- 81.9% of women initiate breastfeeding
- 60.6% continuing to breastfeed for at least 6 months
- 34.1% breastfeeding at 1 year
- 46.2% of women exclusively breastfeeding through 3 months
- 25.5% exclusively breastfeeding through 6 months.

Breastfeeding rates are on the rise!! During the 1950s only one-third of all mothers nationwide initiated breastfeeding. Rates increased gradually during the 1970s but declined again in the 1980s. Not until the early 1990s did rates start to climb at a steady rate. Today, three-fourths of all mothers nationwide initiate breastfeeding; just under half are breastfeeding at 6 months!

Typically breastfeeding rates are lower among WIC moms. It is known that women who are of lower income, younger (less than 20 years of age), less educated, and of a racial minority are less likely to breastfeed. However, because of the commitment of the WIC Program, breastfeeding initiation and duration rates in the past few years have increased at a faster rate among WIC moms compared to non-WIC moms. Currently, about 60% of WIC moms nationwide initiate breastfeeding. The recent increase in breastfeeding rates represents the successful efforts of WIC staff in continuing to provide quality breastfeeding services.

Colorado WIC prides itself in having over 79% of WIC moms initiating breastfeeding, 26% of all infants being breastfed at 6 months, and 20% being breastfed at one year. In 2013, for the first time, among all WIC participants, the proportion of breastfeeding women exceeded that of non-breastfeeding women! It is exciting to know that at the current rate, Colorado WIC will achieve the national health objectives in the coming years.

Want to know the WIC breastfeeding rates for your county? Compass has several types of reports that a clinic or agency can run to obtain helpful information. Reports are accessed from the Reports section of the Compass navigation tree. Some reports contain information at the local agency level only while others contain information for individual clinics within that agency. Some featured reports are:

- **Breastfeeding Prevalence:** This report is used to evaluate the number and proportion of infants/children who exclusively breastfed (Excl, Prim Excl / No F Pkg, Prim Excl / Comp). It is used to evaluate the age to which breastfeeding continued during infancy and childhood and to track trends.
- **Reasons Breastfeeding Ceased:** This report is used to review breastfeeding data on infants and children who "Ever breastfed". Use this report to be aware of anticipatory guidance that can be used with specific breastfeeding ceased trends.
- **Breastfeeding Prevalence by Equipment Issuance:** This report shows the rate of breastfeeding prevalence (including breastfeeding descriptions of ever, exclusivity and

durations) for infants whose mothers were issued breastfeeding equipment by the type of serialized or non-serialized equipment.

WIC Activities and Responsibilities

WIC agencies provide breastfeeding education and support by various methods across the state. Education is usually provided by WIC staff through individual education and group sessions, complemented by viewing videos. A number of agencies provide postpartum support through telephone follow-up programs. Many agencies have a peer counseling program. A Breastfeeding Peer Counselor is a mother who has breastfed and received training to provide breastfeeding advice and information to WIC participants. All agencies have a breast pump program.

The WIC Program is a valuable source of information and support. **Many WIC participants report that WIC staff played an important role in their decision to breastfeed.**

Staff Responsibilities

To ensure women receive adequate breastfeeding information and support, all WIC staff are responsible for:

- Encouraging all women to breastfeed; however, they must be informed that HIV-positive mothers should not breastfeed;
- Providing education and information at each prenatal visit, including information on the mechanics of breastfeeding, such as "how to breastfeed," avoiding formula supplementation particularly in the first month, positioning, preventing problems, managing breastfeeding when returning to work or school, and expressing and storing breast milk;
- Providing education and support during the postpartum period; and
- Identifying breastfeeding problems and making referrals, as indicated.

Colorado Breastfeeding Laws to Know

It is important to know and understand two Colorado laws that protect the rights of mothers to breastfeed. WIC staff can support and inform mothers of these laws so that all mothers know their rights.

- Colorado Revised Statute 25-6-302: A mother may breastfeed in any place she has the right to be.
- Colorado Workplace Accommodations for Nursing Mothers Act, §8-13.5-101 C.R.S.: Public and private employers who have **one** or more employees must provide reasonable unpaid break time or permit an employee to use paid break time, meal time, or both, each day to allow the employee to express breast milk for her nursing child for up to two years after the child's birth.

- Employer shall make reasonable efforts to provide a room or other location in close proximity to the work area, other than a toilet stall, where employee can express breast milk in privacy.

Feeling Good About Providing Breastfeeding Education

Getting comfortable with how you feel about breastfeeding is the first step to providing breastfeeding education. Ask yourself, how do I feel when I see a woman breastfeeding in public? Am I comfortable with breastfeeding? If I had a child or another child, would I breastfeed? If a mom says she wants to formula feed would I be afraid of making her feel guilty if I talked about the many benefits of breastfeeding?

If you are uncomfortable seeing a woman breastfeed in public is it because it is something unfamiliar to you or because of your level of modesty? It is helpful to explore why you feel the way you do and acknowledge that it is okay to feel that way! By understanding your own feelings, you can help your participants who may have the same feelings and apprehensions. Realize that many of us grew up in a formula/bottle-feeding culture – as you gain more knowledge and experience you will become more comfortable with promoting and supporting breastfeeding. If you are comfortable with breastfeeding – great! You can help others by sharing your feelings and gaining more knowledge about helping moms breastfeed.

Many WIC staff have not breastfed and do an excellent job promoting and supporting breastfeeding. The knowledge you gain from completing this module will be a strong foundation for providing breastfeeding education and support.

The more you know, the more comfortable you will feel about providing breastfeeding education. In addition to knowledge, experiences with your family and friends who have breastfed, no matter how few, can bring a level of understanding and sensitivity to your education sessions.

Fear of making a participant feel guilty about not breastfeeding is a common feeling among WIC staff. It is important to recognize that WIC's role is to provide information and education so that women can make an informed decision. Information is empowering – it allows women to make the best choice for themselves and their families. If a mother has the information and chooses not to breastfeed, WIC staff can know that it was an informed choice. How would you feel if you did not provide the information, and the mother later regretted not breastfeeding?

What should you do if you ask a mom what she knows about breastfeeding and she tells you she is going to formula-feed? The answer is simple: ask mom why she came to that decision. "Would you mind sharing with me why you came to that decision?" Often moms have decided to formula-feed because of things they have heard about breastfeeding. A friend may have told them that "It hurts horribly to breastfeed!" or their mother

told them "I could not breastfeed because my milk was bad and it may run in the family." You can acknowledge that many women have heard the same thing (i.e., provide affirmation) and then share what you know about breastfeeding.

Women also need to know that if they decide not to breastfeed, they have an option of pumping their milk and feeding it from a bottle. Some women are uncomfortable with putting a baby to breast but will choose to provide breast milk from a bottle. There are some women who will choose to formula-feed despite your efforts to promote breastfeeding. If a woman chooses to formula-feed, show your support by acknowledging the mother's decision and providing information about other infant feeding practices.

Making the Most of an Education Session

Repetition helps a person process information. People learn best if information is provided repetitively and in small amounts. Research shows that the number of times breastfeeding is discussed has a bigger impact than the total amount of time spent discussing a topic. Repetition helps a person process the information. WIC prenatal and early post-partum visits provide an excellent opportunity for staff to repeat information and to provide information in manageable amounts.

Identify the woman's intentions and needs. It is also important for staff to first address her intentions and needs. This prevents you from overwhelming a participant with too much information and shows your interest in meeting her needs. For example, if a woman has already decided to breastfeed and recognizes the many benefits, it is a better use of time to address the "how-to" of breastfeeding, rather than discussing the benefits of breastfeeding.

If a woman has previous breastfeeding experience, does she have any concerns she would like to discuss? You might ask, "What are some of the challenges you had with your previous breastfeeding experiences?" "What was the best thing about breastfeeding?" If a woman has had an unsuccessful breastfeeding experience, you might discuss options she could try to ensure a successful experience. By tailoring your education, you show your interest in the participant's needs and save valuable time.

Using open-ended questions is helpful in identifying a participant's needs and getting a discussion started. For example, asking a participant "What have you heard about breastfeeding?" or "How often is your baby nursing?" can help a participant share how she feels about breastfeeding. Using closed-ended questions such as, "Are you planning to breastfeed?" or "How is breastfeeding going?" will elicit a "one word" answer and will shut-down the conversation. Using open-ended questions starts a discussion with mom which can help you address her particular needs and concerns.

Video Time! #1

Time to observe communication about breastfeeding in action! Go to <http://lovingsupport.nal.usda.gov/content/grow-and-glow-videos> Click on the image and view *Show Me Video Vignettes: Video 1: Using 3 Step Counseling with New Mothers (07:37)* Write down two questions and two responses you heard the counselor say that you would like to incorporate into your communication.

SELF-CHECK: PRACTICE YOUR KNOWLEDGE

The following begins a series of Self-Checks that occur throughout this module. As you come to each Self-Check, complete it right away. The answers are located at the end of each Self-Check.

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1. WIC strives to achieve the Healthy People Year 2020 Breastfeeding Objectives of having ___% of mothers initiate breastfeeding, ___% continue to breastfeed for at least 6 months, ___% breastfeeding a 1 year, ___% breastfeeding exclusively through 3 months, and ___% breastfeeding exclusively through 6 months.
2. Colorado WIC's breastfeeding initiation rate is approximately __%, duration rate at 6 months is __% and at 12 months is __%.
3. WIC's role is to provide information and education so women can make an _____ decision.
4. If a women tells me she is not going to breastfeed, I should:
 - a) discuss other feeding options
 - b) ask her how she has come to that decision
 - c) discuss the benefits of breastfeeding
 - d) respect her decision and discuss formula-feeding
5. T or F - Repetitively providing breastfeeding education has a bigger impact than total amount of time spent discussing a topic.

ANSWERS

1. 81.9%, 60.6%, 34.1%, 46.2%, and 25.5%,
2. 79%, 26% and 20%
3. Informed
4. b
5. T

Section II: Yes, You Can Breastfeed

The decision to breastfeed an infant is a personal choice. Many women have already made a decision about breastfeeding before becoming pregnant. A vital role you play is to enable each woman to make an informed choice about breastfeeding and support her decision. You can help mom by sharing the many advantages of breastfeeding, the normalcy of breastfeeding, discussing her concerns, informing her of the way WIC supports breastfeeding (e.g., extra foods, certification for a year, available breast pumps, peer counselors, and group support) and allowing her to make her own infant feeding decision.

There are many advantages both physically and emotionally that impact a woman's decision to breastfeed. The health benefits of breastfeeding for mother and infant are dose dependent or, in other words, are related to the amount and duration of breastfeeding. That is, the more exclusively an infant is breastfed and the longer, the greater the opportunity the mother and infant have to acquire the protective benefits of breastfeeding. The following section reviews the many advantages, common myths/concerns and how family and friends can help support a woman to breastfeed.

Advantages of Breastfeeding

Benefits for the Infant

Breastfed infants receive many benefits which last a lifetime.

Human milk has the perfect composition for babies and changes as the baby's needs change. The amount and proportion of protein, fat, and carbohydrate in human milk are perfect for meeting the baby's needs. The largest source of calories in human milk is fat which the baby needs for energy. Human milk also has a high amount of cholesterol which is needed for brain and nervous system development. The iron in human milk is in small amounts because it is so well absorbed by the baby. Human milk contains fatty acids, vitamins and minerals that are essential for proper growth and development. **No infant formula can duplicate human milk.** Human milk is all an infant needs for around the first 6 months of life. As a side note, some people prefer to discuss mother's milk as *human* milk, rather than *breast* milk. Which do you prefer to use in discussion with mothers? The next paragraph uses the word breast milk instead.

Breast milk contains antibodies which protect the baby from illness and infection. Colostrum, the mother's first milk, is especially rich in antibodies (formula has none). Breastfed babies have less diarrhea, ear and respiratory infections, and gastroenteritis and other stomach illnesses than formula fed babies. Or put the other way, formula fed babies are more likely to have ear infections, and respiratory and gastrointestinal illnesses. Breast milk also protects children from asthma, meningitis, chronic digestive diseases, diabetes, eczema, lymphoma, ulcerative colitis, Crohn's disease and some cancers. Breastfed infants

also have a reduced risk of SIDS (Sudden Infant Death Syndrome) and of becoming overweight or obese in childhood.

Fewer allergies

Breastfed babies are less likely than formula-fed babies to experience symptoms of allergy, such as vomiting, diarrhea, malabsorption, eczema, gas, spitting up, ear infections, and asthma.

Easier to digest

Babies who are breastfed are less likely to suffer from constipation and diarrhea than babies fed formula. The protein in breast milk is easier to digest resulting in a softer and a less pungent-smelling stool. Some of the mother's digestive enzymes present in breast milk, such as lipase and amylase, help with the breakdown of nutrients for the baby.

Better jaw and tooth development

Breastfeeding requires more effort than bottle-feeding so it helps promote jaw and tooth development. Babies who are breastfed during the first four months of life have fewer cavities as children.

Higher Intelligence Quotients (IQ)

Breastfeeding contributes to optimal brain development. Breastfed children have higher IQ scores in childhood and fewer learning disabilities and behavioral difficulties.

Less likely to overfeed

Breastfeeding allows a baby to be sensitive to his own satiety cues because the mother cannot see how much the baby is taking from a feeding. Therefore, mom is less likely to manipulate the baby's intake and over feed. This is one reason why breastfed babies are at reduced risk for becoming overweight in childhood.

Fewer illnesses

Breastfed babies are sick less than formula-fed babies, with lower incidences of respiratory infections, ear infections and digestive illnesses. Breastfed infants need fewer sick care visits, prescriptions, and hospitalizations. Mothers who breastfeed miss less work to care for sick babies than mothers who formula-feed.

Benefits for the Mother

Breastfeeding is a wonderful gift a mother can give to her baby and to herself!

Promotes weight loss

Breastfeeding helps a mother's uterus return to normal size faster and uses fat stores gained during pregnancy. This helps women return to their pre-pregnancy weight faster than women who formula-feed.

Decreases the risk of breast and ovarian cancer

One in eight women will suffer from breast cancer during her lifetime. Studies show decreased incidence of both premenopausal breast and ovarian cancer in women who have breastfed.

Protection against osteoporosis

The risk of developing osteoporosis later in life is measurably less for women who have breastfed. Breastfeeding women have higher concentrations of calcium in their blood and breastfeeding stimulates the absorption of calcium.

Provides relaxation

Breastfeeding releases a hormone in the mother's body that helps her relax. Breastfeeding also encourages a mother to take the time to sit down and relax with her baby.

Less stress for mom

Breastfed babies are healthier which means less worry for mom and fewer health care expenses. Breast milk is always available in an emergency because mom's breasts are always with her. Breastfeeding also reduces stress by allowing more time for mom to enjoy her baby and family.

Increases bonding

Breastfeeding plays an important role in the emotional development of infants. Mother-infant bonding through close skin-to-skin contact, increased mother-infant eye contact during feedings, the mother's smell and heartbeat, and hormones released while breastfeeding contribute to a special bond between mother and infant. Research finds mothers who breastfeed are less likely to neglect or abuse their children.

Increases self-esteem

In one study, women who breastfed demonstrated higher self-esteem and assertiveness, became more outgoing, and interacted more naturally with their infant.

Convenient

Breast milk is always ready to go. There is no need to take the time to purchase, sterilize, and prepare bottles. Breast milk is always ready, sterile and at the right temperature for the baby.

Less expensive than formula

Breast milk is free. Breastfeeding saves money on the costs of bottles, nipples and formula. Breastfeeding mothers have healthier babies which means they spend less money on doctor's visits, medications, and miss work less often.

Benefits for the Community

When an infant is breastfed the community benefits.

Saves lives and money

Health care costs are a major portion of the expenses of the U.S. economy. A study published in 2010 reported that if 90% of new mothers exclusively breastfed their babies for the first six months of life, the savings in lives and health care dollars would be 911 babies and \$13 billion each year! Breastfed babies have fewer doctor visits, medications and hospitalizations compared to formula-fed babies. Breastfeeding saves the mother money too, over \$1,000 a year in formula and feeding supplies.

Reduces tax burden

The tax burden on communities and government from providing health care and supplying formula to WIC and welfare infants could be reduced by hundreds of millions of dollars a year if infants were breastfed.

Promotes higher productivity in the workplace

Breastfeeding leads to a more productive and healthier work force. Breastfed infants are healthier which means their mothers have fewer absences from work due to baby-related illnesses. Breastfeeding promotes a healthier workforce for the future!

Benefits for the Environment

During this time of environmental preservation, the advantages of breastfeeding to the environment must be considered.

Healthier environment

Breastfeeding reduces global pollution by eliminating the use of resources and energy required to produce, process, distribute, promote, and dispose of materials created for artificial baby milk. Formula cans and bottle supplies create more trash and plastic waste. Breast milk is a renewable resource that comes packaged and warmed.

Everybody and our planet wins when a mother breastfeeds!

Common Myths and Concerns

Concerns and myths about breastfeeding can contribute to poor decision making. Addressing a woman's concern or misinformation by providing accurate and helpful information helps a woman make an informed choice and increases the likelihood that she breastfeeds.

This part will discuss common myths and concerns women have and how to address them.

What Moms Say

The following are common myths and concerns you might hear from moms. Possible responses to these myths or concerns are listed to the right. Practice saying the responses out loud in your own words.

Moms Say:	You Respond:
"I can't breastfeed because I don't eat very healthy."	You don't have to follow a special diet; eat as well as you did while you were pregnant and your baby will grow fine on your milk.
"I can't breastfeed because I have to go back to work soon after the baby is born."	There are options for combining working and breastfeeding. You can pump your milk to leave for the babysitter/daycare provider, try to go back part time, have the baby brought in for you to feed during your break, take a split shift, or nurse when you are at home and supplement with formula when at work.
"I won't be able to breastfeed because my mother couldn't breastfeed. "	Breastfeeding is different for everyone and with every baby. When our moms were breastfeeding they didn't have as much information and support. We know so much more about breastfeeding now. WIC will provide you with information at each visit and will be here for you if you have any questions or needs when you start breastfeeding.
"My sister breastfed and she said it hurt."	It is not uncommon to experience some discomfort during the first week, but it should not be painful. Pain is usually caused by poor positioning. I can teach you proper positioning so it isn't painful.
"I am afraid breastfeeding will tie me down too much."	During the first few weeks, all mothers need extra rest and time to recover from birth, adjust to a new baby, and to get nursing off to a good start and build a good milk supply. After that nursing moms can take their babies with them most anywhere and don't have to carry bottles and formula. If you need to leave your baby, you can leave a bottle of your breast milk.

Moms Say:	You Respond:
"I've heard that once you breastfeed, it is impossible to stop because the baby won't take a bottle."	Once your baby is about 4 weeks old, and your milk supply is well established, if bottles will be needed, it's a good idea to introduce a bottle of breast milk so your baby becomes familiar with a bottle nipple.
"I want my baby's dad to be able to feed our baby too."	After your baby is 3 to 4 weeks old, you can pump your milk and dad can feed breast milk from the bottle. When your baby gets older he can help feed other foods too.
"I don't want anyone to see me breastfeed."	What a lot of moms tell me is that with practice they got so good at breastfeeding no one could tell they were feeding their baby. If you choose to breastfeed in public you can drape a cover or blanket over you and no one will see.
"I heard you leak all over – how embarrassing!"	Not everyone leaks breast milk. If your breasts leak you can wear breast pads. Often times simply putting pressure on your breast with the palm of your hand or your forearm will stop the leaking.

Here are some other concerns:

- Too much of a change in lifestyle ... Breastfeeding is easy to learn and easy to incorporate into one's lifestyle. You will have to feed your baby anyway. Breastfeeding is more convenient than formula feeding.
- Unsupportive family and friends ... Make breastfeeding your own decision. Seek out people who will support your decision and educate those who don't. Invite them to attend your WIC classes/appointments with you.
- Breastfeeding babies cry a lot ... Babies cry when they are hungry, need to be changed, or need to be cuddled. The closeness with breastfeeding helps babies feel secure and loved. Babies who feel secure usually cry less often.
- Do not know how to breastfeed or fear it will be complicated ... Breastfeeding may seem complicated, but learning about breastfeeding ahead of time will help it go smoothly.
- Breastfeeding will produce a spoiled, clingy child ... Breastfeeding builds trust and security. It leads to more confident and independent children.
- Breastfeeding will make my partner jealous ... Sharing the baby with your partner and having him near during feedings helps everyone.
- Think breasts have to be a certain size ... Women with any size breasts can breastfeed.

- Think baby will be allergic to the breast milk ... Breast milk is made just right for babies. It is rare that a baby will be allergic to a mom's milk.
- Inverted or flat nipples ... You can still breastfeed. Breast shells worn during the third trimester and after your baby is born, or pumping a little before feedings may help by drawing the nipple out. Breast shields are sometimes used for inverted nipples to help breastfeeding be successful. WIC can help you with this.
- Think breast milk will not be adequate ... Learning how to breastfeed now will help to ensure adequate milk production. There are also signs to watch for to determine that your baby is getting enough milk. WIC will teach you about those signs. WIC will not provide formula in your baby's first month of life because we want to help you be successful with building your milk supply.
- Breast milk is bad or can go bad in the breast ... Some women may have heard that their milk is bad, sour or can go bad while in their breast, especially in the case of engorgement, but this is not true. Breast milk in your breast is always the perfect food for your baby, with the right nutrition at the right temperature.
- Having multiples ... A mother of multiples can breastfeed; the body will produce milk according to the need. WIC has hospital-grade electric breast pumps that can be helpful to build your milk supply.
- Fear of stretch marks or "sagging" breasts after breastfeeding ... Whether a woman is breastfeeding or not, there may be a change in the firmness of the breast after having a baby. It is child bearing, not breastfeeding, along with age and heredity, that mostly determine the breast's ultimate appearance.
- Inconvenient . . . Actually it is easier to breastfeed than formula feed because no equipment, formula, access to clean water, or preparation time is needed.
- Mother has had breast cancer ... If a mother has had a lumpectomy and radiation, she will usually produce little milk due to irreversible damage of the milk-producing glands. A woman can still breastfeed on the unaffected side and some women produce enough milk on that one breast to meet the baby's needs - others may need to supplement.
- Unusual breast appearance, such as breast asymmetry or tubular hypoplastic breasts ... This does not mean a woman cannot breastfeed, but she may be at an increased risk for not producing enough milk.
- Previous breast surgery, such as breast augmentation, reduction, or biopsy ... This does not prevent a woman from breastfeeding, but a woman must carefully evaluate her milk production in each breast and may require a special breastfeeding plan.

- Previous lactation failure ... Understanding the reasons for previous failure can improve success with subsequent pregnancies.
- Is presently nursing another infant while pregnant ... It is possible to breastfeed throughout the pregnancy. Some infants may wean spontaneously due to changes in flavor and milk volume when their mother becomes pregnant. Once the baby is born, the new baby should be fed first and more often.
- Prefers combination feeding of formula and breast ... Understanding that breast milk has everything formula contains and more. Be honest with mothers to try and understand their concerns. Breastfeeding can be challenging but it is worth it.

Colorado Laws Supportive Of Breastfeeding

Breastfeeding In Public Act

Establishes that a mother may breastfeed in any place she has a right to be.

Workplace Accommodations For Nursing Mothers Act

Establishes a standard for an employer to make reasonable efforts to provide nursing mothers:

- Unpaid or paid break and/or meal time- to express breast milk for child for up to 2 years after the child's birth.
- A private location in close proximity to her work area (other than a toilet stall) in which to express milk.
- To not discriminate against women for expressing milk in the workplace.

SELF-CHECK: PRACTICE YOUR KNOWLEDGE

What concerns and myths have you heard about breastfeeding? List a few.

Mark the following statements True or False:

- _____ 1. Breastfeeding mothers have to eat a special diet to make good milk.
- _____ 2. If a woman is returning to work within the first 3 weeks after her baby is born, it is recommended she formula-feed.
- _____ 3. If a woman's mother could not breastfeed, she will not be able to breastfeed either.
- _____ 4. Breastfeeding hurts a lot.
- _____ 5. A woman with small breasts can make enough milk to feed her baby.
- _____ 6. Breastfeeding ties a mother down and keeps her from having a social life.
- _____ 7. Breastfed babies cry a lot.
- _____ 8. Once a mother starts breastfeeding, she cannot formula-feed and breastfeed.
- _____ 9. In the middle of the night, when a baby is crying, a mom can get her baby and lie back down in bed to breastfeed.
- _____ 10. Breast milk in the breast can be "bad" or "go bad".

ANSWERS:

- 1. F
- 2. F
- 3. F
- 4. F
- 5. T
- 6. F
- 7. F
- 8. F
- 9. T
- 10. F

Support of Family and Friends

Lack of support is one of the biggest reasons why women do not initiate breastfeeding and why women quit breastfeeding. Women need to know before they deliver what options are available to them. WIC staff play an important role in helping women identify their support systems.

Questions you can ask to assess a woman's support system are:

- Have you talked to your family and friends about breastfeeding?
- Did your mom, sister, or friends breastfeed?
- How does the baby's father feel about your breastfeeding?
- Do you have anyone who can help you at home with breastfeeding questions or concerns?
- Have you spoken to your prenatal provider about your plans to breastfeed?
- Have you spoken to your employer about your plans to return to work after you have your baby?

Often family and friends are not supportive because they feel left out. Encourage moms to let others develop their special times with the baby. Provide suggestions for how grandmothers, fathers, relatives, and friends can be supportive including:

- Bringing the baby to mom at feedings
- Burping the baby
- Bathing the baby
- Changing diapers and clothes
- Holding the baby during non-feeding times
- Having dad or others feed pumped breast milk from the bottle (after the baby is three weeks old).
- Having dad or others help put the baby to bed.
- Having dad or others hold, talk or sing to the baby.

At their last prenatal visit, make sure to provide women with a list of breastfeeding resources with telephone numbers as well as your name and number. Empower women to seek help by giving them the necessary tools.

A friend or family member who has had a positive experience breastfeeding can be an excellent resource to a new breastfeeding mom. Encourage women to talk with friends and family about their interest in breastfeeding and how they can help when the baby comes. There are community resources such as La Leche League, a volunteer organization, which offers breastfeeding information and holds monthly group meetings. Many hospital nurseries have breastfeeding follow-up programs or staff lactation consultants. Encourage moms to tour the hospital where they are planning to deliver and to ask about the lactation services available.

Ask women to also discuss their plans with their physician.

WIC staff are also an important support system. Share with moms that you are available to them to answer any questions, and if you do not have all the answers, you will direct them to someone who does. Let them know that you want to see them within the first week after the baby is born so you can follow up on any breastfeeding questions or concerns. Tell them you can weigh the baby to see how well the baby is growing on her breast milk. Sometimes WIC is a woman's only support system so it is essential that you tell her that you are there for her if she needs help.

Sometimes friends and family are not supportive. If a mom expresses her concerns about others not supporting her decision to breastfeed, encourage her to include them in their WIC visits, hospital and WIC breastfeeding classes, and to share any educational materials she receives about breastfeeding. Educating family and friends on how important breastfeeding is can help turn that person into a breastfeeding supporter.

SELF-CHECK: PRACTICE YOUR KNOWLEDGE

On a piece of paper write how you might respond to these scenarios and include the title of a handout you might use.

1. Scenario 1

At her WIC visit, a woman shares the following conversation she had with her best friend.

Pregnant Woman: "My doctor said it would be best if I breastfeed my baby. He said my baby would be healthier if I do."

Friend: "Are you going to? My mom breastfed for a little while and she said it hurt and it was so inconvenient. I don't know if I would put myself through that."

Pregnant Woman: "Really? I may at least try it. My doctor said that besides being healthy for my baby it is really healthy for me too."

Friend: "I don't know. It sounds like a big hassle to me! Your breasts will hurt and you will be leaking all over the place. Plus, only you will be able to feed your baby! You will have to be there for every feeding!"

How do you think this pregnant woman feels? Do you think her friend's reaction may influence her choice to breastfeed? Write down suggestions you would offer the pregnant woman.

2. Scenario II

Amy is at your office for her WIC appointment. She is thirty weeks pregnant and has just told you she does not want to breastfeed.

How would you respond?

3. Scenario III

Sara is 28 weeks pregnant. She is not sure she wants to breastfeed. This is her first pregnancy. Her mother did not breastfeed, nor did any of her friends.

How would you respond? What WIC handout (limit to 1 or 2) might you use?

4. Scenario IV

Araceli is not planning to breastfeed because she will be returning to work 3 weeks after the baby is born.

How would you respond? What WIC handout might you use?

ANSWERS

Possible Responses to Scenarios

1. *Scenario I: Possible response*

- Identify any concerns of the woman and address any fears or myths she may have based upon her friend's opinion. Ask the woman how her friend's comments made her feel about her decision to breastfeed.
- She is likely feeling unsupported by her friend. Ask the woman to invite her friend to attend a breastfeeding class with her or have her bring her friend to her next WIC visit so she can hear more about breastfeeding
- Ask the woman to share some of the breastfeeding educational materials with her friend. Have the friend visit a friend who is breastfeeding.
- Possible pamphlets: Breastfeeding: Baby's Best Start, Will I be able to Breastfeed Successfully?

2. *Scenario II: Possible response to Amy*

- Identifying the myth or concern–Why have you decided not to breastfeed your baby?
- Helping mom make an informed choice–Provide information to resolve the concern or myth.
- Providing supportive information–As appropriate, discuss some of the advantages of breastfeeding.
- Possible pamphlets: Breastfeeding: Baby's Best Start, Breastfeeding Benefits.

3. *Scenario III: Possible response to Sara*

- Finding out what mom has heard about breastfeeding–Identify what her concerns are.
- Helping mom make an informed choice–Provide information to resolve the concern or myth.
- Possible pamphlets: Breastfeeding: Baby's Best Start, Breastfeeding Benefits.

4. *Scenario IV: Possible response to Araceli*

- "Many moms think they can't work and breastfeed. But did you know that breastfed babies are healthier which means you'll miss work/school less often? There are many options for breastfeeding and working." Discuss possible options such as hand expression, pumping milk for her baby, and storing breast milk. Inform the mom about Colorado state law that her employer must accommodate her need to express breast milk by providing her with reasonable break time and a private space to pump. If necessary, supplementing with formula while mom is at work and nursing when mom is with the baby is another possible option to consider.
- Possible pamphlets: Breastfeeding: Baby's Best Start and Breastfeeding: Returning to Work or School.

Section II: Key Points

Advantages of Breastfeeding

Infant Benefits:

- Nutritionally superior
- Fewer illnesses and infection
- Fewer allergies
- Easier to digest
- Better tooth and jaw development
- Higher IQs
- Less likely to overfeed
- Less likely to become overweight

Mother Benefits:

- Weight loss
- Decreased risk for breast and ovarian cancers
- Protection against osteoporosis
- Promotes relaxation
- Fewer health care expenses
- Mother-infant bonding
- Increased self-esteem
- Convenient
- Less expensive

Myths and Concerns

Providing information to clarify misinformation or address concerns is critical in helping a woman make an informed infant feeding choice.

Support of Family and Friends

Lack of support is one of the main reasons women quit breastfeeding or don't even start. WIC plays an important role in helping a woman identify her support systems and resources.

SELF-CHECK: PRACTICE YOUR KNOWLEDGE

1. Which formula can duplicate breast milk?
2. What is the name of the first milk the baby receives that contains a large amount of the mother's antibodies?

3. List two breastfeeding advantages each for a(n):

Infant

Mother

4. Name two places a woman can turn to for breastfeeding support.

5. List two breastfeeding options for mom when she returns to work.

ANSWERS

1. None
2. Colostrum
3. Any of the advantages listed under key points
4. La Leche League, WIC, Hospital nursery, doctor, family and friends
5. (1) Express her milk to leave for the sitter to feed
(2) Work part time or split shift
(3) Nurse when she is at home and supplement with formulas while at work.

Section III: Getting Ready

For most moms, breastfeeding is a learning experience. It may be natural and normal, but it is not always instinctive. The women you meet at WIC will have varied experiences and knowledge about breastfeeding. Teaching good breastfeeding technique can help women have an enjoyable and successful time breastfeeding.

In this section you will learn about the anatomy of the breast, breast preparation, positioning, latch, and length and frequency of feeds. Building your knowledge in breastfeeding technique will enable you to provide helpful and accurate information to the woman who has decided to breastfeed.

Breast Preparation

In the past many women believed nipple preparation was necessary to "toughen up" their nipples for breastfeeding. Some women may reveal astounding and completely unnecessary practices that will make you wince in pain. These practices may include rubbing a dry wash cloth on their nipples, pulling and stretching the nipples, or even rubbing their nipples with sandpaper. Believe it or not, these techniques used to be taught to moms to help prevent nipple soreness.

Fortunately, research shows the breast prepares for the experience naturally and taking part in these practices does not prevent nipple soreness (good positioning and attachment does). The Montgomery glands, tiny darker bumps on the areola, secrete oils and antibodies to keep the nipple moist and to fight infection. The use of harsh soaps (e.g., deodorant soaps), lotions, and creams can remove these protective conditioners and can result in cracked nipples. Encourage women to just use plain water and mild, unscented soaps when washing their breasts in the later weeks of their pregnancy and while breastfeeding.

Practices to Avoid

- Using harsh soaps or other drying agents on the nipple
- Rubbing nipples with a towel or washcloth or pulling and stretching the nipple
- Expressing colostrum prenatally
- Using a pump prenatally
- Wearing tight or restrictive clothing
- Using lubricants on the nipple
- Exposing the breast to the sun or a hair dryer
- Using breast pads with plastic liners

Breast Type

Breasts come in all shapes and sizes. It is very unlikely that the size or shape of a woman's breast will affect her ability to breastfeed. Some women may believe there is not enough room in their small breasts to store milk and others have larger breasts believe they will smother their babies if they attempt to breastfeed. Reassure women that the size of the breast will not affect milk production or supply. Inform woman with larger breasts that positioning can help her infant successfully breastfeed. Encourage all women to have a breast exam by their physician or nurse practitioner, or conduct a self-exam to identify flat or inverted nipples or any breast anomalies. The size of the breast may not have an effect on breastfeeding; however, having a flat or inverted nipple can make breastfeeding more challenging for the infant, especially if it is not identified prenatally.

Breast Assessment

Nipple assessment

Women can conduct a self-exam for flat or inverted nipples by doing a simple "pinch test." Instruct mom to gently squeeze just behind the nipple with her thumb and forefinger. This partially imitates the motion her baby will make while nursing.

- Normal nipples: Normal nipples protrude outward and remain protruded when pinched.
- Flat or inverted nipples: Flat or inverted nipples do not become erect when stimulated; an inverted nipple may have a central indentation or retract when compressed. Although some infants have difficulty latching on correctly to flat or inverted nipples with proper guidance and perseverance babies can learn to nurse successfully from a wide range of nipple configurations. Wearing breast shells (see Section VI: References) over flat or inverted nipples is a passive treatment that may be initiated in the last trimester of pregnancy by women who choose to do so. Another alternative is to pre-pump prior to each breastfeeding in the early days postpartum. If a woman is identified as having flat or inverted nipples, refer her to a WIC Lactation Management Specialist (LMS) or WIC High Risk Counselor for further evaluation and a treatment plan.

What is a WIC Lactation Management Specialist (LMS)? An LMS is a WIC staff member who completed additional training in breastfeeding and provides counseling for the breastfeeding high risk factors and for other conditions requiring a deeper level of breastfeeding knowledge and ability to perform more thorough assessment of what is going on beyond basic bf promotion and education. Ask your supervisor who your clinic/agency LMS are.

Breast surgeries

Ask women if they have had any breast surgeries. Breast surgery, including breast augmentation (implants), reduction, or biopsy, does not prevent a woman from breastfeeding, but the mother requires careful evaluation of her milk production in each breast. The woman should be referred to their primary care physician or obstetrician for a full evaluation.

Unusual breast appearance

Unusual breast appearance, such as noticeable breast asymmetry or tubular hypoplastic breasts (incompletely developed) – breasts appear widely spaced from each other, with a narrow base at the chest wall, and appear elongated or tubular), does not necessarily mean a woman will be unable to breastfeed successfully. However, women with such breast variations may be at increased risk for producing insufficient milk and should be referred to their primary care physician or obstetrician for a full evaluation.

Piercings

Recommend women with pierced nipples remove the nipple rings as soon as their pregnancy is confirmed. Nipple piercings may cause scar tissue that can impede drainage and should be removed before the baby latches. It is good to let mothers know that it is likely that breast milk will come out of the piercing holes. Women with nipple piercings can still successfully breastfeed.

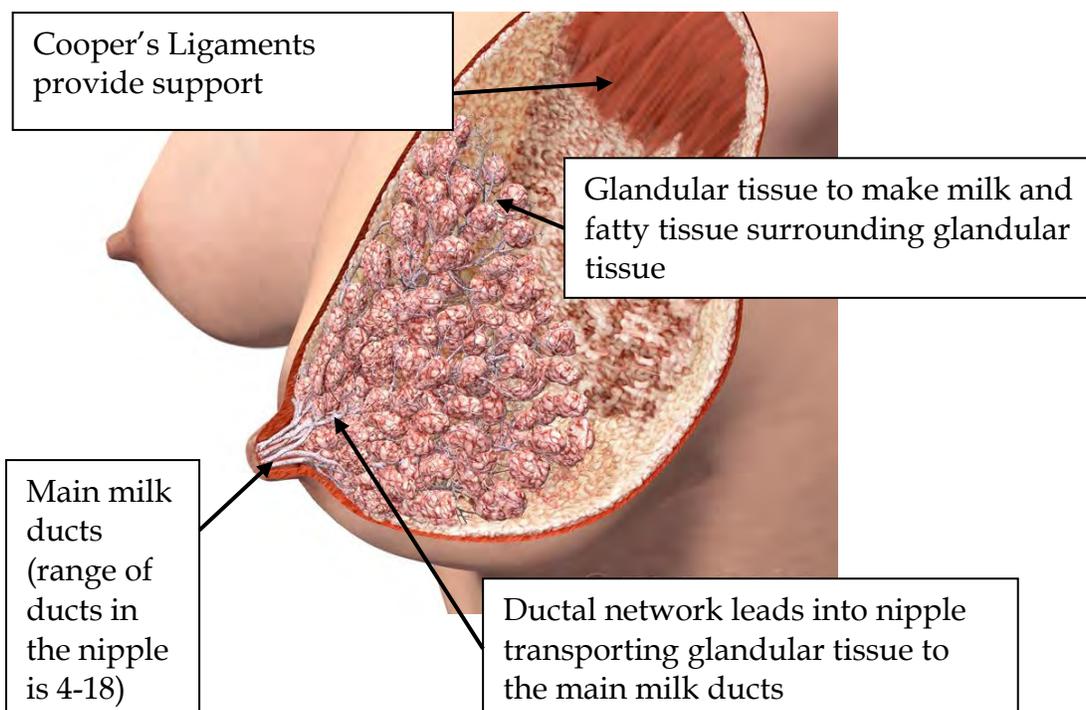
SELF-CHECK: PRACTICE YOUR KNOWLEDGE

What would you tell a mom who tells you she has flat or inverted nipples?

- a) She most likely will not be able to breastfeed.
- b) She may need to use breast shells prenatally or a pump after delivery to help pull the nipples out before each feeding.
- c) You would like to refer her to a WIC lactation management specialist so that further evaluation could be made.
- d) Both b and c

Anatomy of the Breast

Understanding the anatomy of the breast can assist you in teaching moms how important correct positioning is to successful breastfeeding.



Hormonal Influences

Hormones play an important role in milk production and milk ejection. There are two main hormones: prolactin and oxytocin. Prolactin is the hormone that stimulates milk production. Prolactin levels rise with nipple stimulation during feedings. Cells in the breast tissue respond to these higher levels by making milk when the baby suckles at the breast.

Oxytocin helps with milk ejection or milk let-down. Oxytocin is released into a mother's blood stream when the baby stretches the nipple, massages and sucks on the breast. Milk ejection or let-down makes the milk available to the baby.



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Colostrum

Colostrum is the first milk produced. It is a yellowish, thick, sticky fluid. It comes in small amounts and is all the infant needs for the first few days of life until a mother's mature milk comes in at 2 to 4 days postpartum. Sometimes leaking of colostrum occurs prenatally; this is normal. Women should be instructed not to express colostrum prior to giving birth as this can cause premature labor.

Positioning

Poor positioning and latch are the main causes of sore nipples. You can help women prevent soreness by teaching them the correct technique. For all positions, it is important that the baby is in proper position for comfortable breastfeeding. Be sure the baby's ears are in line with its shoulders and the shoulders should be aligned with baby's hips.

Cross-Cradle Hold: This hold allows mom to have maximum control of baby's head and mom's breast. It is commonly used with newborns and smaller babies. Baby is supported on a pillow across mom's lap to help raise baby to mom's nipples. With one hand mom supports the baby at the back of his neck, not his head, to allow baby to open his mouth widely. Mom can support and direct her breast to baby by holding her breast in a "U" or "C" hold with her thumb across from baby's nose. The baby should be on his side with his chest touching his mom's chest.



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Football (or Clutch) hold: Baby's bottom rests on a pillow on mom's lap and his back rests on her forearm. The body is tucked under mom's arm along her side while baby faces mom. Have mom support baby's neck with her hand. The football hold is a good position for women with large breasts or flat or inverted nipples; moms who have had cesarean birth; and moms who are nursing twins or small or premature infants.

Cradle hold: This is the most common hold used by mothers. The baby's head should rest in the crook of mom's arm or forearm. The forearm supports the baby's back and mom's hand holds the baby's buttocks or thigh. Instruct mom to have her baby in close so that her baby's

chest touches her chest while the baby's lower arm comfortably rests between the mom and the baby.

The cradle hold is the most common hold used by breastfeeding women and is easy and convenient.

Side-lying hold: Mom and baby lie on their sides, facing each other. Mom may position herself on her side with pillows under her head, behind her back, and under the knee of her upper leg to increase comfort. The baby faces mom with a pillow, towel, or blanket supporting baby's back. Side-lying hold is good position for women who have had a cesarean birth or want to rest while nursing. Remember to be sure baby's ear, shoulder and hip are in one line.



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Caution: Mothers who sleep in waterbeds should be cautioned against breastfeeding in the side-lying hold due to the possibility of suffocating their baby.

Video Time! #2

There is one more position that is gaining popularity in the U.S. It is called Biological Nurturing or *Laid Back Breastfeeding*. Click on and view a little about it at <http://www.biologicalnurturing.com/video/bn3clip.html> You can read more about it at <http://www.biologicalnurturing.com/assets/Colson%20CL%20Vol%201-1.pdf>

SELF-CHECK: PRACTICE YOUR KNOWLEDGE

1. The baby is positioned to nurse on the same side of the supporting arm. Which position does this describe?
2. Baby and mom are chest-to-chest with baby's head resting in the crook of mom's arm. Baby's lower arm rests comfortably between the mom and baby. Which position does this describe?
3. The baby is resting skin-to-skin on mother's chest. The mother is semi-reclined and mother supports baby to find mother's breast.

ANSWERS:

1. Football or clutch hold
2. Cradle hold
3. Laid back nurturing (described in video)

Latch

Proper latch is essential for successful breastfeeding and preventing sore nipples. An infant who does not correctly latch-on to the mother's breast is at risk for not receiving adequate nourishment. At the same time, if the infant does not remove the milk from the breast, mom is at risk for inadequate milk production. Poor latch-on can lead to an unsuccessful breastfeeding experience, even in the most determined moms, if it is not corrected. The following information can help you help moms correctly latch-on their infants and consequently prevent serious feeding problems, including nipple soreness.



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Instruct mom to hold baby "chest to chest" with baby's body and legs wrapped tightly against mom to help line up the infant's mouth with the breast. Keep baby's ear, shoulder and hip in one line.

The breast should be held in a "C" or "U" hold. Mom's hand should curve like a "C" (thumb on top) or "U" to support her breast behind the areola. The mother's fingers should not touch the areola tissue (top image).

Note: Did you know that the "cigarette hold" or "scissor hold" (holding the breast between the middle finger and index finger) is no longer recommended? It can result in the mother offering only the nipple instead of the areola, reducing the amount of milk taken by the baby and increasing the risk for plugged ducts in the mother.

Having the baby open his mouth wide before putting him on the breast is key to a successful latch. The baby's head should be tilted back slightly. Be sure mom is not holding the back of baby's head, which can prevent baby from opening her mouth wide, but instead at the back of baby's neck at the base of the head. Have mom lightly stroke the baby's upper lip with the nipple. Move baby slightly away and repeat until baby opens her mouth wide. Use mom's arm to move baby close and pull her quickly on to the breast so that chin and lower jaw make first contact (not nose) (top image). Babies latching through laid back breastfeeding or biological nurturing are able to latch with much less concern with how to hold the breast and baby's head. It is more about mother's body supporting the baby in these positions.

The baby's lower lip should be as far from the base of the nipple as possible. Mom needs to be patient to make sure her baby's mouth is opened wide before pulling the baby onto the breast. View Dr. Jack Newman teaching a good latch at:

<https://www.youtube.com/watch?v=Ox8ht-EVnQA> (there may be a short advertisement prior to the video)

Signs of a good latch-on (lower image above):

- Baby's chin should be pressed into the mother's breast
- The baby's nose may touch the breast, but is not compressed
- The baby should have an inch or more of the areola in its mouth

- The lower jaw should be pulled far from the nipple so that baby's tongue draws in the maximum amount of breast tissue
- The baby's lips are flanged out and not curled in
- The latch should feel comfortable

Removing the baby correctly from the breast can minimize soreness. The mother can reposition baby or end the feeding by placing her small, clean finger in the corner of the baby's mouth to break the suction. The baby should be burped and the other breast offered. Air drying the breast after each feeding can help prevent soreness.

Length and Frequency of Feedings

The amount of time a baby breastfeeds greatly affects milk production and, consequently, growth and development. Many moms receive conflicting information about whether they should feed on demand or by the clock.

Feed on demand

It is recommended that babies be "fed on demand" rather than feeding according to a set schedule (by the clock). By feeding on demand babies learn to feed according to their hunger and satiety needs. Newborns (less than one month old) will usually feed every 1 to 3 hours (8 to 12 times in a 24-hour period). **Feeding times are counted from the beginning of one feeding to the beginning of the next feeding.** For example, an infant who fed at 8:00 a.m., then again at 9:30 a.m. and then at 11:00 a.m. is fed every 1½ hours.

Signs of Infant Feeding Cues

Discuss with mothers the signs of an infant's readiness for a feeding. Becoming upset or crying is a late stage of hunger. A crying infant is difficult to latch. Here are signs to review:

- **Early hunger cues:** licking the top of the mouth, rapid eye movements, licking lips, sucking on lip, tongue, fingers or fist, arousal from sleep
- **Active hunger cues:** rooting (moving head in search of breast), fidgeting, fussing and increased alertness
- **Late hunger cue:** crying!



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A feeding typically may take approximately 15 minutes on each breast once a mother's milk has come in. Every baby and mom are different and feeding times may vary. In the early weeks, the amount of time a baby breastfeeds greatly affects milk supply. Once the baby is correctly latched, allow him to nurse for as long as he wants. He should suck actively throughout most of the feeding although he may pause periodically and need gentle prodding. His sucking and swallowing will probably slow down or he may come off the breast or fall asleep. Instruct mothers to burp him at this point in time. Burping and sometimes changing baby's diaper will arouse him to take mother's other breast. Feed baby

on the second breast for as long as he wants. Instruct mother to alternate breasts by starting on the side on which she ended the last feeding. This way both breasts will receive about the same stimulation and drainage. Very short (few minutes) and extremely long (lasting more than 50 minutes) nursing sessions can indicate a feeding problem. The baby may have a poor suck or poor positioning and latch on and should be evaluated further by LMS, High Risk Counselor or lactation counselor.

“Cluster feeds” occur when baby feeds frequently then goes for an extended time without feeding. This feeding pattern typically happens in the evening or after the baby has gone a stretch without eating. Some babies cluster feed during fussy time. Cluster feeding often occurs during the first few days after birth, typically on the second day of life. It is important to explain this feeding to mom and explain it has nothing to do with mom’s breastmilk or not enough milk.

The fat content in human milk increases as the amount of milk in the breast goes down. This explains the understanding that “hind milk” is richer and higher in fat. Nursing a baby longer on a well drained breast may provide only small amounts of additional high fat milk and is not recommended. Nursing a baby on a second, fuller breast, will enable him to get much more milk. Healthy babies are quite capable of regulating their daily fat intake with different patterns of breastfeeding. Over a 24 hour period healthy babies will receive the adequate amounts of the higher fat milk. Regardless whether babies take frequent smaller feedings or larger less frequent feedings the baby will receive the higher fat milk.

Signs a newborn is getting enough milk:

- 4 or more loose, yellow “milk” stools a day
- 6 to 8 wet diapers a day
- Gaining a little more than one ounce a day once milk has come in
- Appropriate feeding frequency and duration

REFERRALS

Some babies experience weight loss in the first few days of life but they should not lose excessive weight. A baby will typically start gaining weight once a mother’s milk comes in. A referral should be made to the baby’s doctor and the High Risk Counselor immediately for further evaluation if a baby meets the definition of:

Nutrition Risk Factor 135 (Inadequate or Potentially Inadequate Growth):

Infants birth to 1 month of age:

- Current weight less than birth weight after 2 weeks of age OR
- Current weight is less than or equal to 92% of birth weight.

Both the above criteria require further assessment and counseling by the WIC high-risk counselor within 24 hours.

Older Infants 1 month to 12 months of age:

- Any weight gain that is less than the expected weight gain from the “Weight Gain Tables” using current weight and the most recent previous weight (as permitted by the tables).

Further Assessment and counseling is required by the WIC high-risk counselor within 30 days when the above conditions are present.

Nutrition Risk Factor 603 (Breastfeeding Complications or Potential Complications):

A breastfed infant with any of the following:

- Jaundice
- Weak or ineffective suck
- Difficulty latching onto mother’s breast
- Inadequate stooling (for age, as determined by a physician or
- Other health care professional), or less than 6 wet diapers per day.

Must be seen by an LMS or the WIC high-risk counselor within 24 hours.

Sleepy baby

Sometimes a baby is sleepier than normal – maybe he was delivered a little early (34th through the 36th week gestation) or delivery was hard on him and he is tired. Staff may hear mothers say “He’s such a good baby! He sleeps all night!” If a baby is sleepy it is important for mom to wake the baby to feed. It becomes a concern when a baby sleeps through feedings or doesn’t stay awake long enough during a feeding. A newborn who does not nurse frequently can become dehydrated and malnourished very quickly. The following suggestions can help a mom wake her sleepy infant:

- Remove or loosen the baby’s blanket
- Remove clothes
- Talk to and make contact with the baby
- Rub baby’s hands, feet, back and bottom
- Change diaper
- Give the baby a bath or massage
- Express milk onto the baby’s lips
- Burp the baby
- Use a cool, damp cloth on baby’s head and hands
- Manipulate baby’s hands

Appetite or Growth Spurts

Moms will often express their concern about not having enough milk because their baby is nursing all the time. Increased frequency and duration of feedings is often the result of growth spurts. Expect mom’s milk supply to increase within 72-96 hours. Growth spurts usually occur at 2 or 3 weeks, 6 weeks and 3 months though they may occur every two weeks. During these spurts of growth, moms may feel like all they do is breastfeed. Moms need

reassurance that if she nurses liberally and on demand during these growth spurts, her milk supply will increase to meet the baby's needs. Encourage mom to resist the temptation of starting supplemental formula during this time.

Video Time! #3

Time to observe communication about breastfeeding in action! Link to and view at: http://www.nal.usda.gov/wicworks/Learning_Center/BF_training_videos.html *Show Me Video Vignettes: Video 4: Talking to a New Breastfeeding Mother (06:12)* Write down two questions and two responses you heard the counselor say that you would like to incorporate into your communication

The Older Baby

The length and frequency of breastfeeding will naturally decline as the baby gets older (around 4 to 6 weeks of age). The baby gets more efficient at feeding and is able to consume more milk in a shorter amount of time. The older baby may also urinate and stool less frequently. It is not uncommon for the older breastfed baby to have only one stool a week without signs of constipation (hard, dry stools).

Vitamin D Supplementation

The American Academy of Pediatrics (AAP) recommends all babies, including those who are breastfed, have a minimum intake of 400 International Units (IU) of vitamin D per day starting within the first few days of life to prevent rickets (a disease characterized by softening and weakening of the bones) and vitamin D deficiency. People make some vitamin D when the skin is exposed to the ultraviolet light (UV) in sunlight. Human milk is relatively low in vitamin D as it is expected that vitamin D will be obtained through sun exposure. Babies can get adequate vitamin D from sun exposure; however, the American Academy of Dermatology and the AAP do not recommend exposing the skin to direct sunlight due to risk of skin cancer. Baby's skin is also much more sensitive to UV light and can burn easily. Poor vitamin D status may be due to anything that limits the body's ability to produce vitamin D through the skin (e.g., deep skin pigmentation, clothing, sunscreen use, aging, winter season, cloud cover, smog and the northern latitudes). Casual sun exposure (i.e. 5 to 15 minute of exposure on arms and legs, or face and arms, 3 times a week) can provide 80-100% of the requirement for vitamin D. The WIC nutrition risk factor applies when partially breastfed babies are drinking less than 500 mL (or about 16 ounces) of formula fortified with vitamin D.

WIC staff are not to assess a baby's risk for vitamin D deficiency but rather to recommend mothers talk with their baby's health care provider about the specific risks their child has for vitamin D deficiency, including possible vitamin D supplementation.

Fluoride Supplementation

Breast milk contains negligible levels of fluoride. Fluoride in a mother's milk reflects the level in the local water supply. It is recommended participants talk with their health care provider to determine if a fluoride supplement is necessary.

Offering Solids

As caregivers begin to introduce solids at around 6 months, mothers should be advised to breastfeed prior to offering solids. Solids in the first year of life should complement a breastfeeding, not replace feedings. However, after one year of age the opposite should occur – solids should be offered before a breastfeeding.

Section III: Key Points

Messages for Getting Ready for Breastfeeding

- Breast/nipple preparation is not necessary.
- Women with inverted or flat nipple(s) may benefit from wearing breast shells prenatally or pre-pumping before feedings.
- Colostrum comes in small amounts, it is present in the first days postpartum, and is all the newborn needs for nourishment.
- Proper latch-on is essential for successful breastfeeding and preventing sore nipples.
- Newborns should feed every 1½ to 3 hours (8 to 12 times in a 24-hour period).
- Sleepy/sleeping babies must be awakened to breastfeed.
- A newborn feeding may last about 30 minutes.
- Signs of successful breastfeeding in a newborn include:
 - At least 4 stools per day
 - 6 to 8 wet diapers
 - Baby meets expected weight gain (see NRF 135 and minimum expected weight gain charts)
 - Appropriate feeding frequency and duration
- Growth spurts usually occur at 2 or 3 weeks, 6 weeks and 3 months.
- Offering solids

SELF-CHECK: PRACTICE YOUR KNOWLEDGE

1. T or F. The breast excretes natural conditioners that moisten the nipple.
2. Name the two nipple types that may need an intervention so mom can successfully breastfeed.

3. What is one of the most common reasons for sore nipples?
4. Name three common breastfeeding positions.
5. What is another way to position a baby when the mother lays back semi-reclined and allows baby to take the lead?
6. List when growth or appetite spurts typically occur.
7. T or F. Mom needs to supplement formula during a growth spurt.
8. Name two ways to wake a sleepy baby.
9. How often should a newborn nurse?
10. How long does a feeding usually last?
11. What are the three best indicators that the baby is receiving adequate milk?

ANSWERS

1. T
2. Flat nipple or inverted nipple
3. Poor positioning or latch
4. Cradle, football, and side lying
5. Laid back nurturing
6. 2 or 3 weeks, 6 weeks, 3 months
7. F, the more the baby takes, the more the mom makes
8. Any 2 suggestions listed under "sleepy baby"
9. Every 1 ½ to 3 hours or 8 -12 times in a 24 hour period
10. 10-15 minutes on each breast
11. At least 4 stools and 6 to 8 wet diapers in a 24 hour period and 5 to 7 ounces of weight gain a week once a mother's milk comes in.

Section IV: Off to a Good Start - What to Expect in the First Two Weeks

During the first few weeks after delivery a mom experiences many new feelings both physically and emotionally. She is learning about being a mother, caring for her infant, and balancing the many new demands placed on her. Physically her body is recovering from pregnancy and delivery, adjusting to hormone changes, and her breasts are now showing signs of milk production.

Educating women prenatally on what they can expect in the first two weeks can mean the difference between success and failure in a mother's breastfeeding experience. Women need to hear that breastfeeding in the first few weeks takes time and adjustment as mom and baby get to know each other.

As breastfeeding educators we must be careful not to portray the first weeks as being "easy" or coming naturally. Breastfeeding is a learning experience for both mom and baby—it takes time to feel comfort-able and time to develop routines. If moms are told breastfeeding is "easy," they may feel like failures if breastfeeding is not so easy for them. Be positive and encouraging while being realistic about the challenges during the first few weeks.

Colorado Can Do 5! and Baby-Friendly Hospitals

Success is often determined within the first few days of breastfeeding. Therefore it is important to encourage women to ask questions of their doctors and the hospital regarding what breastfeeding support services are available to them at the time of delivery. Encourage all women prenatally to request at least five practices shown to help women get breastfeeding right from the start. They are known as the *Colorado Can Do 5!* and hospitals around the state are making an effort to support mothers of healthy newborns with these practices. They are:

- Breastfeeding within the first hour,
- Babies room-in with their mothers,
- Babies are fed only breast milk and receive no supplementation,
- No pacifier use in the hospital, and
- Mothers are given a telephone number to call for help with breastfeeding after discharge.

The Baby-Friendly Hospital Initiative (BFHI) is a global program launched by the World Health Organization (WHO) and the United Nations Children's Fund (UNICEF) to encourage and recognize hospitals and birthing centers that provide optimal mom/baby care and that implement the *Ten Steps to Successful Breastfeeding*. Becoming a Baby-Friendly designated hospital is a detailed and thorough journey and means the facility is able to successfully assist all mothers with the information, confidence and skills needed to successfully initiate and continue breastfeeding. The *Ten Steps* were developed by a team of global experts and consist of steps necessary for Baby-Friendly designation that consist of evidence-based practices shown to increase breastfeeding. The *Ten Steps* consists of all five practices in *Colorado Can Do 5!* plus an additional five steps that focus mostly on facility policies and staff training. A

woman can ask if a hospital is currently designated as Baby-Friendly. If designated, this hospital should practice all five important steps included in *Colorado Can Do 5!*.

Women need to express their desire to breastfeed and ask for the support to do so. WIC staff should discuss with mothers why each of the *Colorado Can Do 5!* practices are beneficial and provide them with a *Colorado Can Do 5!* crib card to take to the hospital with them as an aid to reinforce the messages.

Here is some background information about these five practices:

1 Breastfeed within the first hour. Ask to comfort your baby skin-to-skin immediately or as soon as possible after birth.

The American Academy of Pediatrics (AAP) provides the guideline for the first hour as:

“Healthy infants should be placed and remain in direct skin-to-skin contact with their mothers immediately after delivery until the first feeding is accomplished.”

The benefits to early breastfeeding are:

- The baby’s sucking causes the mother’s uterus to contract, decreasing blood loss.
- The colostrum is a priceless source of protective immunities that shield the baby from disease (more information following).
- Skin-to-skin contact brings stability, comfort and warmth to the baby.

Other reasons to promote skin-to-skin contact are:

- Helps build mother’s milk supply
- Helps prevent infant jaundice
- Promotes mother/infant bonding
- Promotes the mother’s uterus to contract
- Positive effects of early skin-to-skin contact include:
- Positive effects of early skin-to-skin contact include:
 - Increased incidence of breastfeeding at one to three months of age,
 - Increased duration of breastfeeding,
 - Maintenance of baby’s temperature in the neutral thermal range,
 - Better infant blood glucose values, and
 - More positive scores for infant crying and maternal affection during an observed breastfeed within the first few days of the baby's life.
- Preterm babies held in skin-to-skin contact have greater head growth than babies held in a traditional way.

Video Time! #4

Time to observe communication about breastfeeding in action! Click on this link http://www.nal.usda.gov/wicworks/Learning_Center/BF_training_videos.html and view:

Show Me Video Vignettes: Video 3: Prenatal Counseling (03:47) Write down two questions and two responses you heard the counselor say that you would like to incorporate into your communication.

Promoting skin-to-skin contact:

The Massachusetts Breastfeeding Coalition has an excellent handout for mothers on their website at: <http://massbfc.org/>. Consider printing it and posting it in your work area.

What you can do:

Teach mothers to communicate with their health care provider team. Educate mothers to talk with their health care provider team about their desire to breastfeed. Breastfeeding discussions should occur during pregnancy, upon arrival at the hospital, and as soon after birth as possible. The mother's partner can also relay the information to her health care provider. The first hour goes very quickly and she (and/or her partner) will need to voice her request both before and immediately after delivery to seize this special opportunity. A baby who does not get the first colostrum feeding during the quiet alert state (first hour or two after birth) because of staff interference misses the ideal time to initiate breastfeeding.

Challenges to breastfeeding in the first hour

- **Separation:** Mothers should provide expressed breast milk or colostrum for times when they are separated from their babies due to infant or maternal illness. In order to assist mothers who must express milk, hospitals should provide them with quality breast pumps.
- **Cesarean births** are not usually a problem; most mothers can hold their babies. There are different positions that are more comfortable for the mother who just had a c-section. Recent research shows that a father providing skin-to-skin contact with his newborn immediately after a cesarean birth offers calming benefits as well. It is especially important that the mother and/or partner discusses her desire to breastfeed and have the baby skin-to-skin as soon as possible after a cesarean birth as facilities may not be prepared to automatically offer this important first step to successful breastfeeding.

2 Room-in with your baby.

Keep your baby in your room all day and night so you can get to know and watch over your baby. This early time of practicing breastfeeding together is important.

The benefits of rooming-in include:

- **Early Bonding:**
Babies get to know their mom by using their senses. They are able to tell the difference between their mother's smell and that of another woman by the time they are one to two days old. Baby's attachment instinct is highest during the first days of life. Early attachment has a positive effect on baby's brain development.
- **Feeding on Demand:**
Frequent breastfeeding (transferring milk from mom to baby) will help stimulate milk

production and keep up milk supply. Being able to feed baby “on-demand” (because of frequent, continued feeds) helps prevent jaundice, engorgement, plugged ducts, and mastitis. If any of these problems occur, the mother needs to continue nursing and/or pumping.

A non-demanding baby needs to be wakened to feed. Rooming-in helps babies regulate their body rhythms. This includes heart rate, body temperature and sleep cycle.

Nurseries have lights, noise, and other distractions that can interfere with body rhythms. Baby-Friendly hospital usually lack a nursery and this service is no longer provided. Rooming with her newborn helps a mom learn about caring for her baby and reading her baby’s hunger cues. This can increase her confidence in her ability to exclusively breastfeed and care for her baby.

Teaching Mothers about Feeding Cues:

Responding to a baby’s early cues will help the baby feel secure that mom is there to meet its needs. Mom will learn to understand her baby and feel more confident in providing care.

Taking Control:

Rooming-in with baby allows the mom to prevent hospital personnel from giving baby pacifiers, or unnecessary formula, water or glucose water.

Getting Enough Rest:

Rooming-in with baby allows for on-demand nursing. At night it is an ideal way for both mom and baby to get more sleep. Mom stays in constant touch with baby’s needs as they cuddle and nap together. Sleep deprivation is a part of early motherhood, but it is reduced with exclusive breastfeeding. Breastfeeding gives mom more time to rest because there are no bottles to scrub, sterilize, and prepare with formula. Breastfeeding releases “mothering hormones” when milk is “let down.” These hormones act like natural tranquilizers to relax mother and baby.

• **Special note for mothers who have a cesarean birth:**

It may help to have someone stay in the hospital to help mom care for the baby. This way, while recovering, mother and baby will be able to have the benefits of rooming in and spending time together.

3 Provide breast milk only.

Breastfeed often: every 1 ½ to 3 hours. Your milk provides everything your baby needs. No water or other liquids are needed.

Information to Know

Milk supply basics:

- The more the baby takes; the more mom makes!
- Awaken a sleepy or non-demanding baby to nurse frequently

- Nurse a minimum of 8 times in 24 hours (a sleepy baby may need to be awakened)
- No restrictions on frequency or length of feeds
- Mom should offer both breasts at each feeding
- One 4 – 5 hour span without feeding in a 24 hour period is okay

Signs mom is making enough milk once colostrum is replaced with breast milk (commonly referred to as “milk comes in”) :

- Milk in by day 4
- 4 stools by day 4
- Colorless urine at least 6-8 times daily
- Weight gain begins as soon as milk comes in; expect about 1 ounce a day

How to recognize if baby is drinking milk:

Look at baby’s face, jaw, and mouth: some signs are cheeks are full, not sucked inward; jaw is moving in a slow rhythm; baby sucks, rests, and starts to suck again; ears wiggle; hear sounds of swallowing; see milk in corners of baby’s mouth; milk leaks from other breast.

How to know if baby is full and satisfied:

- Baby will sometimes fall asleep
- Baby will come off breast by himself or push nipple out of mouth
- Baby is calm and peaceful
- Baby’s hands and body are relaxed

If baby appears hungry (i.e., crying, sucking on hands, rooting, needing a pacifier to comfort) after feeding, baby may not be getting enough milk. Contact healthy care provider for a weight check.

Human Milk is for Human Babies

There is a lot of misinformation about infant feeding. For example, some WIC mothers believe that formula is as good for their baby as mother’s milk, and water is good for newborns.

You can help by providing correct information:

- A mother’s milk is superior to formula. (Print the California document, “[Breastmilk Has More of the Good Things Babies Need](#)”)
- Water is not necessary for newborns. Breast milk is 88 percent water. An infant’s stomach is small. When a baby drinks water, there is less room left for the nourishing breast milk necessary for the baby to grow healthy and strong. When a mother thinks her baby is thirsty, she should breastfeed immediately. This will give the baby all the water that is needed.
- There are very few medical reasons for breastfed babies to need supplements. And, there are very few medical contraindications to breastfeeding.

4 Avoid using pacifiers in the first month.

Babies who use a pacifier may not nurse as often. Offer your breast at the earliest sign of hunger to give your baby as much milk as possible.

The American Academy of Pediatric Guidelines state pacifier use is best avoided during the initiation of breastfeeding and used only after breastfeeding is well established. In a separate statement on reducing the incidence of SIDS, the AAP recommends that after the first month, pacifier use may be encouraged as a preventive measure.

If breastfed babies require supplementation, efforts should be made to limit the method for providing the supplementation to cup, spoon, tube or syringe to avoid introducing artificial nipple shapes.

Pacifier use may decrease breastfeeding duration:

Use of pacifiers is associated with decreased breastfeeding duration. Health care staff should not offer healthy breastfed babies pacifiers. However, there may be a role for pacifier use during painful medical procedures (such as circumcision) and in the preterm or ill baby who is not able to suckle at the breast. Use of pacifiers can prevent babies from learning how to suckle at the breast and can lead to a reduction in mother's milk supply. Research findings suggest that pacifier use is a marker for breastfeeding difficulties or reduced motivation to breastfeed.

Ways to calm baby:

Find out if there are cultural expectations that pacifiers are needed to calm babies. Teach the mother other ways to calm the baby besides pacifier use. Learn more about baby behaviors and how to respond to them by visiting <http://www.secretsofbabybehavior.com/>

5 Ask the birth facility for a telephone number to call for help or support.

All questions are important, especially after you go home!

Early follow up and attention to any breastfeeding issue are important:

Early follow up is important for breastfeeding success. Most breastfeeding concerns and questions occur after discharge when milk comes in. Recommend the mother to take the *Colorado Can Do 5!* crib card to the hospital and request the staff to write down a number she can call if she has breastfeeding questions or concerns after discharge. Share community resources with the mother and help her identify where to get follow up.

The American Academy of Pediatric Guidelines recommend follow up with the health care provider between day 3 and 5 of life - this might mean 24-72 hours after discharge of a healthy infant.

The first milk - Colostrum

As previously mentioned, a mother's first milk is colostrum. High in antibodies, colostrum gives an infant his first "immunization" against illness and infection. Colostrum, despite its small quantity (teaspoons per feeding), is all the infant needs for the first few days of life. Many new mothers quit breastfeeding within the first few days under the false pretense that they do not have enough milk. It's true that colostrum comes in very small amounts; however, a newborn's stomach capacity is also small.

Colostrum is the perfect food for newborns and is often called "liquid gold" because of its color and nutritional value. Its appearance is often thick and yellowish but it may be clear. Antibodies and protective white blood cells found in colostrum are capable of attacking harmful bacteria. It also coats the inside of the newborn's intestines preventing the invasion of harmful bacteria.

Colostrum is the ideal food for the first days of life because it is easily digested, low in sugar, and high in protein. It also has a laxative effect, helping the newborn eliminate meconium (infant's first bowel movements which are black and tarry in appearance). Meconium contains bilirubin which can lead to jaundice if not eliminated from the body. Frequent breastfeedings can help reduce the incidence and severity of jaundice.

Baby's stomach size

Just after birth a newborn baby's stomach is very small and only small amounts of breast milk quickly fill it up. This is the reason why newborns do not need large amounts of milk initially and need to feed frequently. This is also why the small amounts of colostrums are the perfect amount for a newborn baby. Share this useful information with mothers, especially since many mother's incorrectly believe just after birth that they are not making enough to satisfy their baby. Below are general baby stomach sizes to keep in mind and inform mom:

- Day 1: 1 teaspoon or the size of a marble or a cherry
- Day 3: approximately 1 ounce of the size of baby's own fist or a walnut
- Day 10: approximately 1.5 to 2 ounces or the size of a golf ball or ping pong ball
- 1 Month: approximately 2.5 to 5 ounces or the size of a large egg

When mom's milk comes in

Colostrum is replaced with breast milk between 2 to 4 days after delivery. Breast milk is more abundant and bluish white in color and resembles skim milk. As colostrum is replaced with milk, the breasts will become larger, somewhat firm, and slightly tender. This natural occurring process is called engorgement. Engorgement will normally last a few days until the body adjusts to making and releasing milk. Frequent nursing and emptying of the breasts is the key to the prevention of severe engorgement and building an ample milk supply.

Infrequent feedings will cause breasts to become full and hard causing them to produce less milk. **Severe, painful engorgement** is a breastfeeding emergency and a mother should be quickly referred to a WIC lactation management specialist or WIC High Risk Counselor for further assessment and treatment. To prevent engorgement encourage mothers to feed early

(as soon as the baby shows early feeding cues, like squirming) and frequently (every 1 ½ -3 hours).

To ease the discomfort of engorgement, most women find hand expression helpful to relieve engorgement or to handle situations when they are without their baby and need to express milk. Hand expression will be covered later in this module. Women can also apply cool compresses between feedings to reduce inflammation and apply moist heat, or taking a warm shower just before breastfeeding to trigger letdown.

Nipple Soreness

Nipple discomfort varies from woman to woman. Typically most women experience some mild discomfort in the first week of breastfeeding. Usually the discomfort is at the beginning of a feeding until a mother's milk lets-down. Severe nipple pain during the entire feeding, or pain persisting beyond one week, probably means the baby is poorly positioned or is not properly latched-on to the breast or may indicate a breast infection. If the baby is not latched on correctly, not only will the mother experience pain with feedings but the baby is also at risk of not getting enough milk. If milk is not removed from the breast, mom's milk supply will decrease. **Severe sore nipples** require the woman to be referred to a WIC lactation management specialist immediately or WIC High Risk Counselor for further evaluation.

How to know if a breastfed baby is getting enough

Frequency of feedings

More frequent, shorter nursings, 8 to 10 times a day (at least 20 to 30 minutes), build and maintain a mother's milk supply more effectively than less frequent but longer nursings! The following patterns are typical of well-nourished breastfed babies during the first month of life, once a mother's milk has come in.

Milk comes in

Mature breast milk should "come in" at 2 to 4 days postpartum. Very often this happens after the mom has been discharged from the hospital. WIC staff should prepare mom and educate her to nurse frequently when her milk comes in to build her milk supply and to avoid severe engorgement. Mature milk is present in larger quantities and is whitish bluish in color.

Many wet diapers

A newborn infant should urinate at least 6 to 8 times a day. The urine should be colorless, not yellow. A red or pink "brick dust" appearance on the diaper suggests the newborn is not getting enough milk.

Many bowel movements

A breastfed baby should have multiple bowel movements each day. Many breastfed babies pass a small stool with every nursing during the first 3 to 4 weeks of life. If the newborn baby is having fewer than four stools each day, it might mean he is not getting enough to eat. A breastfed baby's stool is softer and lighter in color. Its appearance is often referred to as cottage cheese and mustard, as it has a yellow-orange color and often has a seedy texture.

Rhythmic suckling

A newborn should suck rhythmically for at least 10 minutes on each breast. He may pause periodically, but he should nurse vigorously throughout most of the feeding. A baby will get more milk from nursing at both breasts than nursing from one side only. If the newborn typically falls asleep and will not take the second breast, you should suggest to mom to divide the baby's effective suckling time between the two breasts rather than nursing 20 minutes on one breast. Alternate the side on which feedings start so both breasts receive comparable stimulation and emptying.

Baby appears satisfied

A newborn baby should appear satisfied after nursing and will probably fall asleep or relax at the second breast. Breastfed babies who appear hungry after most feedings, who chew their hands after nursing, and who often require a pacifier may not be getting enough milk.

Mild breast discomfort

Mild nipple tenderness is common for the first several days of nursing. The tenderness is usually only at the beginning of the feedings. Discomfort is typically gone by the end of the first week.

Breasts feel full

A mother's breast should feel full before each feeding and softer after the nursing session. A mother should hear her baby swallow regularly while breastfeeding. One breast may drip milk while the baby nurses on the other side.

Sense of milk let-down

After 2 or 3 weeks, the new mom might be aware of the sensations associated with milk ejection, or milk let-down reflex. This can be a "tingling," "pins and needles" sensation in the breasts as the milk begins to flow. The baby may start to gulp milk and milk may drip or spray from the other breast. Just hearing the baby cry might cause mom's milk to let-down, even before the baby latches-on.

Adequate weight gain

Once the milk has come in, a breastfed baby should gain about one ounce each day for the first several months of life. The only way to be absolutely certain that a baby is getting enough milk is to have him weighed regularly. If the baby is not gaining appropriately, supply is low or the baby is not nursing effectively. Such breastfeeding difficulties are easier to remedy if recognized and treated early.

It is normal for a baby to lose weight in the first few days after birth, especially if the baby is breastfed. However, if a baby loses weight greater than 10% of its birth weight during the first week of life, this is cause for concern and mom should be directed to see her health care provider immediately. Healthy full term babies typically regain their birth weight by 10 days of age.

Video Time! #5

Time to observe communication about breastfeeding in action! Click on this link: http://www.nal.usda.gov/wicworks/Learning_Center/BF_training_videos.html and view *Show Me Video Vignettes: Video 2: Counseling about Milk* (03:15) Write down two questions and two responses you heard the counselor say that you would like to incorporate into your communication

Leaking Milk

Many women experience leaking milk, especially during their baby's early months, and sometimes during the last months of pregnancy. Assure mom that this is normal. Leaking can occur on one side when baby is nursing on



the other; it can also occur when it's almost feeding time. The sight, sound, or even thought of her baby may trigger leaking. Some women may not experience leaking and have plenty of milk. The following are some tips to help moms with leaking:

Tips to manage leaking:

- Applying gentle pressure to the nipples can stop the leaking. Mom can fold her arms across her chest and put the heels of her hands directly on her nipples to stop the milk flow or she can put her hands under her chin and lean into her forearms pushing her nipples back towards the chest wall. Emphasize the importance of using only gentle pressure.
- Nursing pads can be useful. However, caution moms to avoid using disposable pads with plastic liners, as these may retain too much moisture and lead to soreness and possibly infection. Some nursing pads are cloth and are washable and reusable. Moms can also make their own nursing pads from absorbent material such as cloth diapers sewn together.
- Explain to mom that if she is feeling very full or engorged, she should allow the milk to flow in order to relieve the fullness rather than hold it back. She can catch the overflow in an absorbent towel or cloth diaper to keep herself dry or can collect it in a clean container or bottle to store and give to baby later.

Key Points

Colostrum is the perfect food for baby's first days. It's easy to digest and protects baby from illness. It comes in small amounts.

Baby's stomachs are very small after birth and can only hold small amounts of colostrum or breast milk at a time until they grow and stretch in size with increasing age.

Nursing within 1 hour after delivery is important. Frequency of nursing should be every 1 to 3 hours. Duration of nursing sessions should be around 30 minutes in length, approximately 15 minutes on each breast. Frequency of feeding and emptying of breasts build a mother's milk supply.

Room-in with baby at the hospital.

Avoidance of pacifiers and bottles the first 4 weeks after delivery helps to get breastfeeding off to a good start and helps mom establish her milk supply.

Breast milk replaces colostrum and comes in about 2 to 4 days postpartum.

Leave the hospital with a phone number to call for help with breastfeeding.

A good indication a newborn is getting enough to eat is when they are gaining an ounce a day and having 6 to 8 wet diapers and at least 4 bowel movements in 24 hours.

Some nipple tenderness is normal, but if breastfeeding is so painful mother hates to breastfeed or is having cracked, blistered, or bleeding nipples, intervention is needed. Refer to a WIC lactation management specialist.

Engorgement occurs after mother's milk "comes in" and normally lasts a few days. If mom is in severe pain or the baby is having problems latching-on, intervention is needed. Refer to a WIC lactation management specialist (LMS).

SELF-CHECK: PRACTICE YOUR KNOWLEDGE

List 2 recommendations you would tell a mom to prevent engorgement..

-
-

List 3 suggestions for easing the discomfort of breastfeeding.

-
-
-

1. *Scenario I*

Yesenia delivered four days ago. The nurse at the hospital helped her with positioning and Yesenia feels that she knows how to position her baby on the breast. Breastfeeding was going well the first few days and she was breastfeeding every two hours. Her milk came in yesterday and her breasts are very full and are becoming painful. The baby is having problems latching on and keeps slipping off the breast during the nursing session. Yesenia is breastfeeding about every 3 to 3½ hours and is concerned because her nipples are becoming more sore.

What do you suspect is the problem?

What recommendations would you give to mom?

2. *Scenario II*

Mary delivered six days ago. Breastfeeding seemed to be going well the first two days but now Mary states she is having a lot of problems and is thinking of bottle-feeding. Her breasts are very full, painful, hot, and shiny-even her underarms are painful. The baby can't seem to latch-on to the nipple and becomes frustrated and fussy while breastfeeding.

What do you suspect is the problem?

What recommendations would you give to Mary?

3. *Scenario III*

Sue comes to the WIC clinic 10 days after delivery. She reports her baby is such a good baby because he already sleeps through the night at 10 days of age. You weigh him and find he is 5 ounces below birth weight. He is feeding about 6 times in 24 hours.

How would you respond?

ANSWERS

1. **Scenario I**

Yesenia has symptoms of engorgement which could be caused by infrequent feedings and poor positioning as indicated by her complaint of sore nipples. Yesenia should be encouraged to increase the frequency of feedings to every 1½ to 3 hours (8 to 12 times a day). Review tips for managing engorgement with Yesenia. If you determine her engorgement to be severe, refer her to a WIC lactation management specialist immediately.

2. **Scenario II**

Mary has symptoms of severe engorgement or possibly a breast infection. Refer her to a WIC lactation management specialist immediately for further assessment. If the WIC specialist is not available refer her to a lactation specialist or her health care provider.

3. **Scenario III**

"I know you need the rest, but newborns need to feed at least 8-12 times in a 24-hour period. We like to see babies back to their birth weight by 2 weeks of age. To help increase his weight and your milk supply, do you think you could wake him to feed during the night? If you can make sure he feeds at least 8-12 times in 24 hours, his weight should increase so that he gains 1 or more ounces a day. Would you like to bring him back to the clinic at 2 weeks of age so we can weigh him to make sure he has started to gain weight adequately?"

Activity to extend your learning: Work with your supervisor to schedule a time when you may observe a breastfeeding class, a lactation consultant in your agency or community, or a WIC lactation management specialist breastfeeding education session. Be sure to take notes and list comments or ideas that you can use in your own education sessions.

SELF-CHECK: PRACTICE YOUR KNOWLEDGE

1. T or F Colostrum helps a newborn baby eliminate meconium.
2. T or F A newborn should be nursed every 3 to 4 hours.
3. T or F Breastfed babies need a bottle of water every day.
4. T or F It is better for a newborn to nurse for 10 minutes at each breast than for 20 minutes on one breast.
5. T or F A mother's milk comes in between 4 to 6 days.

6. T or F A newborn baby should have at least 4 bowel movements a day if they are getting enough milk.
7. T or F A newborn should nurse at least 8 to 12 times a day.
8. T or F A breastfed baby's stool looks like cottage cheese and mustard.
9. T or F Engorgement should be treated immediately.
10. T or F Colostrum is bluish-white in color.

ANSWERS

1. T
2. F; every 1½ to 3 hours
3. F; breast milk is all the baby needs
4. T
5. F; between 2 to 4 days
6. T
7. T
8. T
9. T
10. F; yellowish to clear

Section V: Caring for Mom

During the first weeks of motherhood, it is not uncommon for women to feel tired and fatigued and to have emotional lows and highs. All women's experiences are different depending on a number of circumstances, including how much support they have at home, whether they had an easy or hard labor, whether their infant is colicky, and how well breastfeeding is going. To help mom during this time period, discuss the following:

- Sleep when the baby does, including at least one nap a day.
- Drink plenty of fluids throughout the day.
- Eat three meals and snacks.
- Ask for help. Family and friends can help with household chores, diapering, bringing baby to mom to nurse, burping baby, etc.
- Let some household chores go.
- Call a friend or relative who has breastfed for support.

Be sure mom has a list of local breastfeeding support resources. La Leche League groups are located throughout the state and hold monthly support groups. Many hospitals have breastfeeding follow-up programs or lactation consultants available for individual consults, and usually they are open to the public, not just women with a certain insurance plan. Remind mom to get a number to call for help before she leaves the hospital.

Remind mom that WIC is a resource and schedule her and her baby for a WIC appointment within the first week after delivery. Make sure she has your name and number and knows she can call you for more information or to discuss any concerns that she might have. If your clinic participates in the Breastfeeding Peer Counselor program, be sure all moms are aware of the program and have appropriate contact information.

It is also important to recognize that many new moms experience depression. Depressed women are often more socially isolated and may have trouble with breastfeeding and caring for their infant. Mothers experiencing postpartum depression should be referred to their health care provider.

Locate your local agency breastfeeding resources list (or go to www.COBFC.org and find mother's resources). Call two resources on the list to learn about the services provided.

Nutrition During Lactation

The same principles of good nutrition during pregnancy apply during breastfeeding. Moms should be encouraged to **"eat a variety of foods."** Many women choose not to breastfeed because they believe that they will need to follow a special diet. Moms need to know there are no "rules" and their diet does not need to be perfect to breastfeed. Research shows that even women who are mildly malnourished produce milk of good quality. If a mother is not eating well, she will still produce high quality milk but she will compromise

her own nutritional needs. For individualized recommendations on calorie needs and food group servings refer mothers to www.choosemyplate.gov .

Eat to Hunger

Advise the breastfeeding woman to eat to satisfy her hunger. She should be told to trust her appetite-breastfeeding does take additional calories and she may feel hungry more often. Eating smaller meals throughout the day can help satisfy an increased appetite.

Fluids - Drink to Thirst

Advise women to get a glass of water, juice, or milk before sitting down to nurse and to always drink to thirst. Many women find they become quite thirsty while nursing.

No Need to Eat or Avoid Certain Foods

There are no foods that must be eaten or avoided by the nursing mother. Variety is key. Eating a varied diet helps introduce different flavors into the baby's diet which may better prepare them for eating solids when they are older.

If you suspect a possible food sensitivity refer mom to the WIC High Risk Counselor for further evaluation.

Lose Weight Gradually

Women are encouraged to eat to satisfy their hunger. Healthy eating should be the goal, with weight loss being secondary. Breastfeeding requires additional calories (approximately 500 calories a day) to produce milk. The fat stored during pregnancy and additional calories consumed in the diet are used for milk production. To ensure a woman recovers from childbirth, rebuilds her own nutrient stores, and meets the calorie demands of breastfeeding, dieting is not recommended in the early weeks postpartum. The breastfeeding woman generally loses 1 to 2 pounds a month during the first 4 to 6 months of breastfeeding without dieting. Exclusive breastfeeding leads to greater weight loss.

A diet lower than 1800 calories should be avoided, it is not possible to consume adequate nutrients from a diet so low in calories. Weight Watchers is a reputable weight loss program that has a special food plan for breastfeeding moms.

Exercise

Exercise may be resumed at 6 weeks postpartum, with doctor approval. Moderate exercise is generally appropriate and beneficial for the breastfeeding mother. Exercise can be invigorating and provide a sense of well-being. Examples include: walking, water aerobics, bicycling, and swimming. If women are doing higher impact exercise, suggest wearing a good support bra. Jostling of the breasts can sometimes lead to breast infections or plugged ducts.

Caffeine

Caffeine intake of one or two caffeine-containing beverages per day generally does not cause problems for most breastfeeding mothers and babies. Consumption of larger quantities of caffeine has been known to cause a baby to become fussy and wakeful. Sources of caffeine should be considered including chocolate, coffee, sodas such as cola drinks, Mountain Dew, energy drinks such as Red Bull, some sports drinks, and black teas.

Smoking and tobacco use

Though we highly recommend quitting smoking, smoking is **not** a contraindication to breastfeeding. Smoking and tobacco use are viewed as a matter of risk/benefit ratio: the risk of some nicotine exposure versus the tremendous benefit of breastfeeding.

Breastfeeding provides some protection against both infection and asthma. Smoking does adversely impact milk volume and women who smoke tend to wean sooner. Women who cannot quit smoking should be encouraged to cut-back on the number of cigarettes smoked, to never smoke in the same room as the baby, and to smoke after a feeding rather than before. Breastfed babies of smokers are known to have a lower incidence of infections and asthma when compared to formula-fed babies whose mothers smoked.

Drugs & Alcohol

Alcohol and most drugs are secreted into breast milk. Women who are abusing drugs and alcohol should not breastfeed. For women who have an occasional drink, the American Academy of Pediatrics Committee on Drugs suggest intakes limited to 2-2.5 ounces of liquor, 8 ounces of table wine, or 2 cans of beer (servings based on a 132 pound woman). The breastfeeding woman who chooses to have an occasional alcoholic drink should be advised that alcohol does pass into breast milk. Therefore, it is recommended that if she does drink, she should do so only occasionally, in small amounts, and with a meal and after breastfeeding.

Some mothers report using marijuana. Whether or not the mother has medical marijuana lactating mothers should refrain from consuming marijuana. While each should be evaluated by a medical expert on a case-by-case basis some variables to consider might include infant's gestational age, medical condition, chronological age, body weight, breastfeeding pattern or dietary practices. Ultimately, the decision is made by assessing the risk/benefit ratio (i.e., the risk of an infant being exposed to marijuana compared to the documented benefits of human milk). WIC staff can inform mothers frankly, such as, "To be honest, there isn't much research on the effects of THC (the chemical in marijuana) on your developing baby (fetus) or young infant. Are you willing to take that risk? You seem like a mother who wants what is best for her infant." Provide the Marijuana and Your Baby fact sheet pamphlet to the mother.

Medications

Most medications are excreted to some degree in breast milk, however, many medications taken by the breastfeeding mother are safe for the baby because minimal quantities of drugs usually appear in the milk. Advise breastfeeding women to check with their health care provider and/or pharmacist prior to taking any over-the-counter or prescription medications. Many medications are safe for a breastfeeding woman or, if they are not recommended, a medication that is safe can sometimes be substituted. There are several sources to refer mothers and health care professionals to for information about medications and mother's milk.

Herbal Remedies, Environmental Contaminants

Caution women against the use of herbal products as some may contain psychoactive substances or even be toxic. Some examples of commonly-used herbs include: licorice, comfrey leaves, sassafras, senna, bark, chamomile and some herbal teas, such as Mother's Milk Tea. If an herbal product is being taken in excessive amounts, the contents need to be evaluated. Refer the woman to the WIC High Risk Counselor or health care provider for further evaluation of the product. The regional poison control center can also be of some assistance in identifying the active properties of most herbs.

Family Planning

It is important for mom to consider a family planning method prior to delivery. Spacing children at least 24 months apart is recommended because it allows a woman time to rebuild her nutrient stores which were compromised during pregnancy and lactation. Breastfeeding is not a reliable method of contraception. The good news though is that most forms of contraception are safe during lactation. However, it is important that care be taken as to when contraception is initiated.

Contraception Methods

Non-hormonal methods

Non-hormonal methods include sterilization, intrauterine devices (IUDs), barrier (condoms, cervical cap, etc.) spermicide methods, and natural family methods. Permanent methods of contraception include tubal ligation, hysterectomy, and vasectomy and should only be considered by couples who are confident in their decision to end childbearing. These non-hormonal methods of contraception have no known effect on lactation.

Hormonal Methods-Containing Progesterone-only

Norplant implants, DepoProvera injections, hormone containing IUDs, and "mini-pills" or progesterone-only oral contraceptive pills are examples of progestin only methods. Use of these methods during lactation may affect mother's milk volume. It is recommended that breastfeeding women not use progestin-only methods in the first 6 weeks postpartum.

Hormonal Methods-Containing Estrogen

Contraceptives containing estrogen have been shown to suppress milk production and should not be used by the lactating mother.

Key Points

Advise mom to:

- Eat a varied diet to satisfy hunger
- Drink to thirst
- Eat and drink frequently throughout the day
- Sleep when baby sleeps
- Accept help
- Expect weight loss to be gradual
- Limit caffeine intake
- Avoid cigarettes, alcohol, and drugs, including marijuana
- Check with health care provider before taking any medications
- Check with health care provider before taking herbs and herbal remedies
- Choose a family planning method prior to delivery
- Wait to start progesterone-only hormonal methods until 6 weeks postpartum
- Do not use estrogen-containing contraceptives while breastfeeding

Optional Activity:

Visit a friend or relative who just delivered or accompany a public health nurse on a home visit of a new breastfeeding woman and provide assistance and support as needed.

SELF-CHECK: PRACTICE YOUR KNOWLEDGE

1. List two suggestions you would give a mom to help her during the early weeks postpartum.
2. What recommendations would you give to a woman who is unable to stop smoking?
3. T or F It's best for the nursing mom to limit her consumption of caffeine to no more than 2 cups per day.
4. T or F If the nursing mom smokes, she should be told not to breastfeed.
5. T or F If a mom uses marijuana for medical reasons it is fine if she breastfeed her infant.
6. T or F There are no fluid quantity recommendations. Moms should be told to drink to thirst.
7. T or F A breastfeeding mom needs to follow the MyPlate dietary recommendations precisely in order to produce enough milk.
8. T or F Hormonal-type contraceptives should be started immediately after delivery.
9. T or F Breastfeeding is a good method of contraception if a mother's menstrual period has not returned.

ANSWERS

1. Any of the suggestions listed at the beginning of the section
2. Try to cut back on the number of cigarettes smoked; always smoke away from the baby and after a feeding.
3. T
4. F; the benefits of breastfeeding outweigh the risks of smoking
5. F; mothers should not breastfeed if they use marijuana
6. T
7. F; women should be encouraged to eat a variety of foods, using MyPlate.gov as a guide.
8. F; hormonal contraceptive methods should not be started until lactation is well established—wait until at least 6 weeks postpartum.
9. F; breastfeeding should not be used as a method of contraception.

Section VI: Breastfeeding Doesn't Have to Tie Moms Down

Women who are not aware of the ways to combine work/school and breastfeeding may quit breastfeeding prematurely or choose not to initiate breastfeeding. This section reviews the different options available to breastfeeding moms, methods for expressing milk, and the features of different pumping systems.

Early Planning is Key to Continued Breastfeeding

WIC staff can help moms breastfeed longer by talking about a woman's breastfeeding goals during her pregnancy. How long does she want to breastfeed? Will she be returning to work or school? How soon after birth will she return? If she is separated from her baby does she know she can still breastfeed? Is she familiar with hand expression and the different breast pumps available?

The American Academy of Pediatrics recommends breastfeeding for at least the first year of life and thereafter as long as mutually desired. WIC staff can support this recommendation by educating women on options for continued breastfeeding when they are separated from their baby.

WIC would like to have all moms breastfeed exclusively; however for some moms exclusive breastfeeding is not realistic. Tell all moms who breastfeed WIC will support their efforts to breastfeed by not offering formula to them during their baby's first month of life so that they can build their milk supply to get breastfeeding off to a good start. WIC staff need to support whatever goal a mom has for breastfeeding and help her achieve that goal. Some moms will choose to pump so they can feed expressed breast milk to their babies. Other moms will have the luxury of having their babies brought to them at work or school so they can breastfeed throughout the day. Some moms will choose to breastfeed and provide supplemental formula. Moms who choose not to exclusively breastfeed need to hear that any breastfeeding is better than not breastfeeding!

The following questions can assist moms in developing their plan.

When is mom expected back to work or school? What is the employer's policy on family leave?

- Moms who can wait until their baby is 6 weeks old to return to work or school find combining breastfeeding and working easier. Six weeks allows a mother time to establish her feeding pattern and milk supply.
- If a mom needs to return to work/school before 6 weeks postpartum she may need to pump more frequently to ensure an adequate milk supply.

Does the employer have a lactation policy? Is there a place where she can express her milk or breastfeed in the event she is able to bring her baby to work/ school or have her baby brought to her during the day?

- If the employer does not have a lactation policy, discuss with mom the Colorado law and determine how mom can approach her employer. It's helpful to mothers to know what space is available to her. If there is not a space readily available, inquiring early allows time for the employer to locate an area.
- Moms should be encouraged to ask for a small, clean, private area. If she will be using an electric pump, the room will need to have an electrical outlet.

Will it be possible to take two twenty-minute breaks during the day to express milk or nurse her baby?

- Moms working or going to school full-time will usually need to express or nurse their baby 3 times a day-during two breaks and over lunch.
- Can she return to work part-time? If she needs to work full-time, is it possible to start back part-time for a few weeks or months?

When moms return to work part-time it helps both mom and baby adjust to being separated.

- Moms working part-time usually need to pump 1 to 2 times a day depending on the number of hours worked.
- If a mom starts back to work full-time she should try to pump at least 3 times during the day. Pumping during morning and afternoon breaks and at lunch is ideal.

Can mom start back to work on a lighter schedule or mid-week?

- Returning to work on a lighter schedule or mid-week can reduce fatigue and help mom adjust to her new routine.

If a mom is returning to work full-time or part-time can she start to collect her breast milk 2 weeks prior to returning to work?

- Establishing a pumping schedule similar to the one she will keep at work helps a mom learn how to express her milk, know how long it will take, and helps her build up a supply of stored breast milk.
- Encourage mom to start pumping her milk as soon as she knows she is returning to work.

Can mom visit the day care center during the day to nurse her infant?

- If the child care center or sitter is located near mom's place of employment, mom may choose to visit her baby during the day to nurse.

Does the infant's day care center support breastfeeding?

- Moms should be encouraged to interview the day care staff to determine if they support breastfeeding before selecting a day care center. A written schedule can be given to staff letting them know when mom will be there to nurse. A backup plan should also be included for the times she is late or the infant is hungry before she can get there.
- Staff can sometimes put the infant off for a few minutes by distracting the infant with an activity or by giving a small amount of expressed milk or supplemental formula. There is nothing worse than having a very well-fed infant when a mother needs to nurse.

Does the mom plan to exclusively breastfeed or will she be using supplemental formula?

- Moms should be encouraged to exclusively breastfeed because of the many benefits for both mom and infant. However, some moms will decide to provide supplemental formula because they do not want to or cannot express their milk during the day.
- In the event that supplemental formula is provided, mom should wait until she has well established her milk supply (approximately 6 weeks). Offering formula too soon can interfere with a mom's milk production. One to 2 weeks prior to returning to work, moms may find it helpful to offer formula-feedings in place of the breastfeedings they will miss at work. It is possible, however, for women to wait to start supplementing when they return to work. These women will most likely experience some over fullness until their body adjusts to the missed feedings. Moms who supplement while they are at work should nurse as much as possible in the early morning, evenings, and on weekends to maintain their milk supply.

Milk Expression

Regular emptying of the breast is key to maintaining a milk supply. If moms are not able to empty their breasts by nursing they can express the milk by using a breast pump or hand expression. A mother's pumping/expression schedule should duplicate her breastfeeding pattern if she were at home nursing her infant.

Hand or Manual Expression

All mothers should be instructed on hand or manual expression. Some mothers prefer to hand-express their milk rather than using a mechanical device. Readily available to all moms, hand expression can be a very quick and convenient method of expression as well as to relieve temporary engorgement. Hand expression is a good option for mothers who need to express their milk on occasion; however some moms are very proficient and find it a viable method for more frequent expression.

Go to the resource section and click on the links to observe instruction on manual expression. Each video emphasizes different steps in hand expression. Feel free to share these websites with WIC mothers who have access to the internet.

Selecting the Right Breast Pump

The type of pump a mother uses depends on a number of considerations, including her working status (part-time or full-time), whether she is wanting to exclusively breastfeed, ease of expressing milk, time available for pumping, ability to stimulate hormonal levels, and volume of mom's milk supply. A breast pump should simulate, as closely as possible, a baby nursing at the breast.

Type of Breast Pumps

Manually-Operated Breast Pump

Manually-operated breast pumps are commonly used for situations where pumping is infrequent or of short duration. These pumps are fairly inexpensive and widely available. Manually pumping takes practice; suction is achieved by either pulling on a piston or pressing a lever.



Manual pumps are a good option, when an electric pump is not available, for:

- Relieving normal engorgement
- Healing sore or cracked nipples
- Weaning an infant from the breast
- Occasional separation from infant (e.g., mom has an appointment)

The manual pump does not stimulate hormonal levels well, therefore it is difficult for women to maintain an adequate milk supply if they are using the manual pump frequently in place of putting the baby to breast. In summary, Manual pumps are used for situations where pumping is infrequent or of short duration.

Personal Use Electric Pumps

Personal use electric pumps are easy to use and can be supportive for women who are returning to work and are separated from their infants for longer periods of time. Moms using these pumps should have already established their milk supply and have expressed genuine interest in breastfeeding exclusively for a goal of at least one year. WIC has specific guidelines for the issuance of these pumps; including the infant should not be getting formula from WIC at the time of issuance. Refer to the Colorado Program Manual for full details. Use of these pumps alone may not be enough to adequately maintain a mother's milk supply.



Personal electric pumps are a good option, when a heavy duty electric pump is not available, for:

- Mothers who are working part- or full-time or for any other reason are separated from their infant for at least 6 hours a day on a regular basis
- Mothers of multiple infants
- Mothers of babies with physical or neurological impairment such as weak suck, uncoordinated suck/swallow pattern, inability to suck, or inability to latch on to breast.

Special note: the personal use pumps are designed for single-use only; they should not be shared between mothers because they cannot be sterilized.

Heavy-Duty Electric Pumps

The heavy-duty electric pump is most efficient (second to baby) in extracting milk. This type of electric pump is more expensive though many companies have a rental option. All Colorado WIC clinics have electric pumps available for loan.

The electric pump is used with either a double or single collection kit. The double set up allows the mother to pump both breasts at the same time. This reduces the time required for pumping in half and provides better stimulation of hormones for milk let-down and production.



Possible indications for use of an electric breast pump include:

- Mothers returning to work or school part- or full-time
- Baby unable to nurse because of prematurity; respiratory or cardiac problems affecting endurance; disorders of the oral or gastrointestinal (GI) structures (i.e., cleft palate or lip); muscle tone problems (i.e., down's syndrome, cerebral palsy, hydrocephalus)
- Latch-on problems
- Mastitis (breast infection)
- Mother is on medication that is contraindicated for breastfeeding
- Mom and baby are separated for more than a few days
- Mother of multiples
- Mother needs to increase her milk supply

Pedal Pump

A pedal pump is the manual version of the electric pump. Instead of connecting the collection kit to an electric motor, the kit is connected to a foot pedal. The pumping action is driven by mom pumping the pedal with her foot. The pedal pump is an excellent option for mothers who do not have access to electricity.



Possible indications for use of a pedal pump include:

- Moms returning to work or school
- Engorgement
- Healing cracked or sore nipples
- Short interruptions of breastfeeding
- Weaning an infant from the breast
- When pumping may need to be done in the car or in places without electricity

In summary, pedal pumps are a great alternative for moms returning to work or school.

SELF-CHECK: PRACTICE YOUR KNOWLEDGE

Talk with a co-worker or friend who combined working and breastfeeding. Ask her to share some tips for making breastfeeding and working a positive experience.

Find out about your agency's breast pump loan program. List the types of pumps available and the common reasons your agency issues pumps.

Go to the Nutrition Education and Breastfeeding Support Section of the [Colorado WIC Program Manual](#) and read the section on breast pumps and aids.

Collection and Storage of Breast Milk

Encourage mothers to store containers of no more than 4 ounces of breast milk per container to reduce the chances of leftover milk to discard. Breast milk can be stored in a variety of containers. Glass is the preferred container for freezing, breast milk storage bags or plastic bottle liners may also be used. Plastic liners should be double bagged in case of breakage. Encourage mom to label each bag with the date. This will allow mom to use the milk in the order that it was expressed.

Storage guidelines may differ. You may see other storage guidelines from other sources (e.g., pump manufactures) that are slightly different. Colorado WIC has chosen to stay with more conservative recommendations.

Refer to WIC recommendations for the storage of breast milk using the WIC pamphlet #B21 *Returning to Work or School* to learn how long breast milk can be stored in the following places:

- Refrigerator
- Freezer (compartment inside refrigerator)
- Freezer (compartment separated from the refrigerator compartment)
- Upright or chest freezer (deep freeze)

Issuing Supplemental Formula

Staff need to carefully assess the amount of formula needed by a breastfeeding woman. Offering too much formula can undermine a mother's confidence and interfere with her milk supply. If a mother requests supplemental formula it is the staffs' role to educate the mother on the impact that supplemental formula may have on her milk supply and to tailor the formula package to best meet the baby's nutritional needs. Formula is not routinely provided to breastfeeding babies in their first 4-6 weeks of life to protect the mother's ability to build her milk supply. Supplemental formula is available after the first month of a baby's life only if requested by the mother, after a dialogue on the indication for which the mother is requesting the formula has been discussed, and after information on the impact of formula on lactation has been provided. Some circumstances, such as the final stage of weaning or a mother returning to work/school (who is not interested in pumping) will necessitate that staff work with mothers to determine how much formula the baby is using.

Key Points

Hand expression is a good option for mothers who need to express their milk on occasion.

Helping mothers develop a breastfeeding plan when separated from their baby is essential for continued breastfeeding.

Regular emptying of the breast is key to maintaining a mother's milk supply.

A breast pump should simulate, as closely as possible, a baby nursing at the breast.

Manually-operated breast pumps are commonly used for situations where pumping is infrequent or of short duration.

The heavy-duty electric pump is most efficient (second to baby) in extracting milk.

Pedal pumps and personal electric pumps are an option for women returning to work or school.

When supplemental formula is requested for a baby over one month of age, staff need to carefully assess how much formula the baby is currently consuming at the time of the appointment and promote continued breastfeeding.

SELF-CHECK: PRACTICE YOUR KNOWLEDGE

1. T or F Moms are encouraged to talk to their employers during their pregnancy about their decision to return to work breastfeeding.
2. T or F Moms who work full-time (e.g. an 8 hour day) will need to express their milk at least 5 times a day.
3. T or F Moms returning to work before 6 weeks postpartum may need to express their milk more frequently to maintain their milk supply.
4. T or F A battery-operated or small electric pump is the best type of pump for a mom who is returning to work full-time.
5. T or F WIC advises that breast milk can be stored in the refrigerator up to 4 days. (
6. T or F Moms wanting to provide supplemental formula should wait until 4-6 weeks postpartum as not to interfere with their milk production.

ANSWERS

1. T
2. F; at least 3 times a day
3. T

4. F; ideally moms returning to work full-time should use an electric or pedal pump.
5. F: according to WIC guidelines breast milk should not be stored in the refrigerator more than 48 hours.
6. T

Section VII: References

Congratulations – if you have completed each of the previous sections of this module and all of the activities, you can feel confident you have a good foundation for providing breastfeeding education and support. There will be those times, however, when you will not have the answer to a participant's question or when you'll need more information about a topic.

This section includes a list of breastfeeding contraindications, referral protocol with educational guidelines, postpartum assessment, and commonly asked questions and answers.

When Breastfeeding May Not Be Recommended

Though breastfeeding is the optimal and normal feeding method, it is important you know situations when a woman should not breastfeed or needs further medical evaluation before recommending breastfeeding. The following is a listing of those conditions.

- A woman who is Human Immunodeficiency Virus(**HIV**) **infected or has Acquired Immunodeficiency Syndrome or AIDS** should be counseled **NOT** to breastfeed her infant since the virus has been found in human milk and can be transmitted through breastfeeding. WIC staff are responsible for advising all pregnant, postpartum, and breastfeeding women to know their HIV status so that if they are HIV-positive they can receive medication prenatally to reduce the risk of transmission to their baby and they can avoid breastfeeding.
- Women with **active tuberculosis** should refrain from close contact with the baby, including direct breastfeeding, due to potential transmission through respiratory droplets. Women with tuberculosis who have been treated appropriately 2 or more weeks and who are considered non-contagious may breastfeed. Pumping and/or manual expression of breast milk during the contagious period is possibly and necessary to maintain milk supply.
- **Hepatitis** is a viral infection of the liver that can cause fever, jaundice, anorexia, nausea, fatigue, and in some cases, chronic liver disease. All hepatitis are not the same, as hepatitis can have many causes, with each type differing in the method of transmission, incubation period, severity of illness, carrier state, possible treatments and preventions, and long-term prognosis. The decision to breastfeed should be made in conjunction with the mother's and the baby's health care providers, and often warrants input from an infectious disease expert.
- Women, who **abuse alcohol, illegal drugs, or certain prescription medications**, should **not** breastfeed. Most maternally-ingested drugs are transmitted to breast milk. Intravenous drug abusers also have a high incidence of hepatitis and HIV which can be

transmitted to the breastfeeding infant.

- Women who are **abusing alcohol** should not breastfeed. Excessive alcohol intake is associated with inhibition of the let-down reflex, poor milk production, high alcohol levels in milk, lethargic infants, developmental delays in the infant (documented slight motor delays), slow weight gain, and failure to thrive, as well as other adverse health consequences for the mother and infant.
- Use/abuse of **illegal drugs (and some legal drugs such as marijuana)** is a contraindication to breastfeeding. These drugs are hazardous to the nursing infant and potentially dangerous to the physical and psychological well-being of the mother.
- Most **medications**, including over-the-counter options, taken by nursing mothers are quite safe for the breastfeeding baby. Virtually all breastfeeding mothers will take one or more medications during the course of breastfeeding. Although all medications are excreted to some degree in breast milk, most medications taken by the nursing mother actually are quite safe for breastfeeding babies because only minimal quantities of a drug usually appear in milk. Each situation should be evaluated on a case-by-case basis by the mother's health care provider and/or pharmacist.
- The use of some **herbal supplements**, including herbal teas, may not be recommended while pregnant or breastfeeding. Each situation should be evaluated by the mother's health care provider and/or pharmacist on a case-by-case basis.
- Most medications taken by nursing mothers are quite safe for the breastfeeding infant. Virtually all lactating mothers will take one or more medications during the course of breastfeeding. Although all drugs are excreted to some degree in breast milk, most medications taken by the nursing mothers actually are quite safe for breastfeeding infants because only minimal quantities of a drug usually appear in milk. Each situation should be evaluated on a case-by-case basis by the mother's physician.
- **Human T-Cell Leukemia Virus Type 1 (HTLV-1)** is increasing in parts of the world such as the West Indies, Africa, and southwestern Japan. Although HTLV-1 is not increasing in the United States, trends may change. At the present time, it is recommended that, in the United States, the mother with HTLV-1 disease should not breastfeed.

Counseling on the Contraindications to Breastfeeding

When a mother has a condition that contradicts breastfeeding, encourage her to change her behavior (alcohol and/or drug use) or, in the case of some medical conditions, avoid breastfeeding altogether. A woman who is unable to change her behavior or condition should not be made to feel guilty. Provide her with information specific to her

contraindicated behavior or condition, while remaining as encouraging and positive as possible.

Advise women to avoid drug and alcohol consumption while breastfeeding. A negative or threatening tone usually has the opposite effect from that desired, making the mother defensive and resistant to change. Inform her that alcohol and many drugs, including prescription, over-the-counter, herbal supplements, marijuana and illegal drugs, can pass into breast milk and harm her baby. Advise women to inform their health care providers that they are breastfeeding so medications can be prescribed that are not contraindicated. If the woman is using marijuana, illegal drugs, or alcohol, warn her of the dangers and refer her for further assistance.

Postpartum Assessment

Moms are very vulnerable to breastfeeding failure during the first weeks of breastfeeding. With early hospital discharge practices, many women are discharged before breastfeeding is well established. WIC staff play an important role in identifying women who need additional help and support to successfully breastfeed.

Conducting an early assessment (within the first week of delivery) of breastfeeding can help identify and resolve problems before they become bigger problems. So how do you go about assessing breastfeeding? A great place to start is with the WIC Nutrition Interviews for both breastfeeding women and infants and the "Colorado WIC Early Breastfeeding Screening Form." This form can be ordered using the Colorado WIC Materials Order Form located on the Colorado WIC Program website. Questions are included on the questionnaires to address how many times feedings are occurring, the length of feeding, the number of wet and soiled diapers, and whether mom has any questions about breastfeeding. Staff can ask opened ended questions too, such as, "How is <baby's name> feeding? What challenges are you having? Has your baby received anything besides breast milk? What led to <baby's name>getting something other than breast milk? What questions do you have about breastfeeding <baby's name>?"

Additionally, an infant's weight is another key factor in assessing how breastfeeding is going. After a mother's milk comes in, an infant should gain 1 ounce per day for the first few months of life. An infant who is not back to birth weight by 2 weeks of age, or who is less than or equal to 92 percent of birth weight, should be seen by the WIC High Risk Counselor that day or the health care provider immediately.

Referral Protocol

The Colorado WIC Nutrition Risk Factors are designed to ensure that breastfeeding women who have a breastfeeding complication or potential complication receive additional support and/or intervention in a timely manner. Breastfeeding women or infants identified with a complication must be referred to a WIC lactation management specialist or WIC High Risk Counselor within 24 hours or referred to their health care provider. **Both early assessment and intervention are key to helping a woman successfully breastfeed.**

Key Points

- All women should be advised to know their HIV status so that if they are HIV-positive they can receive treatment to reduce the risk of transmission to their baby and they can avoid breastfeeding.
- Some women may have medical conditions that warrant advising them not to breastfeed or require further follow up by her health care provider before recommending breastfeeding.
- Smoking is not a breastfeeding contraindication because the benefit of breastfeeding outweighs the risk to the infant.
- Breastfeeding women should limit their caffeine intake to less than 2 cups of coffee or the equivalent from other caffeine-containing beverages.
- Early assessment (within a week of delivery) is key to helping a woman successfully breastfeed. The Woman and Infant Nutrition Interviews, the WIC Early Breastfeeding Screening Form, infant weight gain, and discussion with the mom, are tools for conducting an assessment.
- Prenatal women identified to have a potential complication must be provided with education and referred to her health care provider, as appropriate.
- Breastfeeding women and infants identified to have a breastfeeding complication or potential complication must be referred to a WIC lactation management specialist that day or to their health care provider.
- The Colorado WIC Program has extensive referral protocol to ensure the breastfeeding woman and infant are provided timely and appropriate follow up.

SELF-CHECK: PRACTICE YOUR KNOWLEDGE

1. A mom tells you that her baby is refusing to nurse. What are some of the possible causes?
2. True or False
 - a. _____ A woman abusing alcohol should be told not to breastfeed.
 - b. _____ A woman who has hepatitis should be referred to her health care provider to determine if she can breastfeed.

- c. _____ Women using any medication while breastfeeding should be told not to breastfeed.
3. A breastfeeding woman who reports that her nipples retract when her baby feeds should be referred to a WIC lactation management specialist within what period of time?
4. A breastfeeding baby appears jaundiced at his WIC appointment. What should you do?
5. You just weighed a 1-week-old breastfeeding baby at her certification visit and the baby has lost 92 percent of her birth weight. What should you do?
6. A mother tells you her 2 week old baby is breastfeeding 8 times in 24 hours, is having 4 bowel movements, and 7 wet diapers. The baby's weight is 4 ounces above birth weight. What should you do?
7. You are in the process of certifying a pregnant woman and she tells you that she is breastfeeding her 18-month-old. What would you do? (Hint: refer to Breastfeeding Complications or Potential Complications Reference Section at the end of this module)
8. A breastfeeding mom complains to you that her nipples are cracked and bleeding. The WIC lactation management specialist is not available today to see the mom. What would you do?

ANSWERS

1. Possible Response: "Can you tell me at what times your baby nursed in the last 24 hours?" If the recall actually indicates the woman is breastfeeding every 4 to 5 hours, you will need to probe further to see if the baby is a sleepy baby, or if mom is trying to feed on a schedule, or if other problems are present. Discuss the importance of feeding a newborn ever 1 to 3 hours and provide mom with strategies for increasing the number of feedings.
2.
 - a. True
 - b. True
 - c. False, most medications are safe while breastfeeding, though further evaluation

of the specific medication needs to be made by the High Risk Counselor or the participant's health care provider.

3. 24 hours or sooner. If the High Risk Counselor and/or Lactation Management Specialist (LMS) is not available a referral should be made to the participant's health care provider. Additionally, you would want to discuss the educational points outlined in the Breastfeeding Complications or Potential Complications Reference Section located at the end of this module if the participant will not see the High Risk Counselor and/or LMS immediately.
4. Refer the mom and baby to the High Risk Counselor and/or LMS within 24 hours or sooner. If the High Risk Counselor and/or LMS is not available a referral should be made to the participant's health care provider. Additionally, you would want to discuss the educational points outlined in the Breastfeeding Complications or Potential Complications Reference Section located at the end of this module if the participant will not see the High Risk Counselor and/or LMS immediately.
5. Assign, the risk factor for Inadequate or Potentially Inadequate Growth, and refer to the WIC High Risk Counselor within 24 hours. Additionally, you would want to discuss the educational points outlined in the Breastfeeding Complications or potential Complications Reference Section located at the end of this module if the participant is not going to see the High Risk Counselor immediately.
6. Congratulate mom on what a great job she is doing breastfeeding. Her baby is really thriving on her milk!
7. Assign the risk factor for Breastfeeding Pregnant Woman, and explain that her milk supply probably will decrease and that her breastfed baby may need other sources of nutrition. If she plans to continue to nurse throughout her pregnancy, refer her to her obstetrical care provider who may discourage the practice for high-risk pregnancies.
8. Assign the risk factor for Breastfeeding Complications or Potential Complication, and make a referral to the High Risk Counselor and/or LMS within 24 hours. Additionally, you may want to discuss the educational points outlined in the Breastfeeding Complications or Potential Complications Reference Section located at the end of this module.

Section VIII: Breastfeeding Complications or Potential Complications Reference Section

Identifying breastfeeding complications or potential complications is critical for helping women successfully breastfeed. This section provides a list of complications that can interfere with a woman and baby's breastfeeding success. An explanation of each condition, with education points, guidelines for goal setting, referral and follow up are included to assist staff in providing information and guidance to WIC participants. Prenatal women, breastfeeding women, and their babies should be assessed at each WIC visit for breastfeeding complications or potential complications by going through the nutrition interview. Early identification is key to helping a mother and baby have a positive and successful breastfeeding experience.

Prenatal women identified to have a complication or potential complication (listed below) should be provided with educational information and referral during her routine WIC appointments. There are no nutrition risk factor (NRF) codes for breastfeeding complications in the pregnant woman.

Breastfeeding women and babies identified with a complication or potential complication of the breastfeeding complications risk factor (listed below) are considered high risk and must be referred to a lactation management specialist that day. The specialist is responsible for conducting a full evaluation of the situation, determining the intervention need for additional referral and follow up with the breastfeeding women. In the event the specialist is not available, a referral must be made to the participant's health care provider.

Complications or Potential Complications

- Flat or inverted nipple(s)*
- History of previous breastfeeding failure
- Breast surgery including augmentation (implants), reduction and biopsy
- Unusual breast appearance, such as marked breast asymmetry or tubular hypoplastic breasts
- History of breast radiation
- Pregnant woman who is presently breastfeeding
- Carrying/breastfeeding multiple babies
- Severe breast engorgement*
- Recurrent plugged or obstructed ducts*
- Mastitis (fever or flu-like symptoms with localized breast tenderness)*
- Cracked, bleeding, or severely sore nipples*
- Mother with systemic illness such as diabetes, hypertension, pku, cystic fibrosis, eating disorders, etc.
- Mother who is abusing drugs or alcohol
- Mother 40 years or older*
- Mother 15 years or younger

- Failure of milk to come in by 4 days postpartum*
- Tandem nursing (breastfeeding siblings who are not twins)*
- Jaundice*
- Weak or ineffective suck*
- Difficulty latching-on to the mother's breast, neuromuscular problems, including down syndrome, oral anatomic problems, such as cleft lip and/or palate*
- Excessive weight loss: greater than ½ pound weight loss from birth weight
- Inadequate infant weight gain (not back to birth weight by 2 weeks or age)
- Inadequate stooling for age less than 6 wet diapers per day*
- Baby with galactosemia

*Complications of breastfeeding risk factor.

Pregnant Woman – Complications or Potential Complications

Flat or inverted nipple(s):

Nipples do not become erect when stimulated; an inverted nipple may have a central indentation or retract inward when compressed. Some babies may have difficulty correctly latching-on to flat or inverted nipples, however, with proper guidance and support mothers can successfully breastfeed.

Education points:

For flat or inverted nipple(s), the woman should be encouraged to have an initial examination by her obstetrical care provider early in pregnancy and again at the beginning of the third trimester. If indicated by the exam, a physician, nurse practitioner, nurse, or dietitian can recommend the use of breast shells during the last month or two of pregnancy, with the authorization of the woman's obstetrical care provider. Breast shells put pressure against the areola to gradually allow the nipples to protrude. Deferring treatment until after delivery, and then using a breast pump to pull out the nipples prior to feedings may be the preferable option for some women with flat or inverted nipple(s). Additionally, breast shells may be worn between feedings or for 30 minutes prior to feedings.

Prior breastfeeding failure:

Breastfeeding failure may have occurred due to a variety of reasons. Understanding the reasons for the previous failure can improve success with future pregnancies. In the vast majority of instances, unsuccessful breastfeeding results from improper technique, poor management of common problems, or lack of support.

Education points:

For prior breastfeeding failure, discuss the previous problems the woman experienced and correct any misinformation she may have. If appropriate, encourage the woman to try breastfeeding again. Emphasize practices that promote success, and arrange for close follow up after delivery.

Breast surgery:

Surgery including breast augmentation (implants), reduction, or biopsy does not prevent a woman from breastfeeding, but the mother requires careful evaluation of her milk production in each breast. A special breastfeeding plan may be needed for the mother with a history of previous breast surgery.

Education points:

For a woman with **previous breast surgery, unusual breast appearance, or history of breast radiation**, encourage her to discuss breastfeeding with her health care provider. Reassure her that, even if supplementation with formula becomes necessary, partial breastfeeding may still be possible.

Unusual breast appearance:

Unusual breast appearance, such as marked breast asymmetry or tubular hypoplastic breasts, does not necessarily mean a woman will be unable to breastfeed successfully. However, women with such breast variations may be at increased risk for producing insufficient milk and should be referred to their health care provider for full evaluation.

Education points:

When a pregnant woman has unusual breast appearance, such as marked breast asymmetry or tubular hypoplastic breasts, she should not be discouraged from initiating breastfeeding. Close follow up of the baby after delivery will be required to assure the baby receives adequate milk. Even if formula supplements become necessary, partial breastfeeding may still be possible. Refer the woman to her health care provider for further evaluation.

Breast radiation:

Women who have been treated for breast cancer with lumpectomy and radiation of the affected breast usually produce insufficient milk from the irradiated breast due to irreversible damage to the milk-producing glands. However, women can still breastfeed from the unaffected side. While some women are able to produce sufficient milk for their babies with frequent nursing from one breast only, others may need to give formula supplements to keep their babies adequately nourished.

Education points:

A woman with a history of breast cancer treated with breast radiation should be advised that the treated breast is unlikely to produce significant milk. She should be encouraged to maximize her milk production in the untreated breast by frequent nursing, beginning as soon after delivery as possible. Early follow up of her baby after delivery will be necessary to determine whether her untreated breast can serve as the baby's sole source of nutrition. Refer the woman to her health care provider for further evaluation.

Pregnant women breastfeeding:

A pregnant woman who is presently breastfeeding may choose to continue to nurse as her pregnancy progresses. Breastfeeding during pregnancy can influence the mother's ability to meet the nutrient needs of her growing fetus and nursing baby. When a mother chooses to nurse through a pregnancy, refer her to her obstetrical care provider who may discourage the practice for women with high-risk pregnancies.

Education points:

When the pregnant woman is still breastfeeding, explain that her milk supply probably will decline and that her breastfed baby may need other sources of nutrition. If she desires to continue nursing as pregnancy progresses, refer her to her health care provider for further evaluation. Explain that both she and her baby may find nursing less enjoyable as the milk supply declines and she experiences some nipple discomfort.

Carrying multiple babies:

The birth of multiple babies should **not** prevent a woman from breastfeeding, although multiple babies may need special assistance if they are premature or low birth weight. The woman who is expecting twins will need reassurance that she is capable of breastfeeding successfully and producing enough milk for both babies.

Education points:

Encourage mothers wishing to nurse multiple babies to do so. Offer the reassurance that she is capable of producing adequate milk and provide the necessary guidance to achieve adequate milk production, including: optimum calorie, nutrient, and fluid intake; adequate rest; appropriate frequency of breast feeding; and the loan of an electric breast pump. As with other participants, provide information on breastfeeding basics, and offer specific educational materials on breastfeeding multiple babies. Encourage her to enlist sources of support during the postpartum period.

Next Steps

Based on information presented, encourage participants to choose one or two specific actions/goal(s) which will assist in reducing or eliminating the potential breastfeeding complication. This may include reading educational materials, attending a breastfeeding class, or making an appointment with their health care provider for further evaluation.

Pregnant women with potential breastfeeding complications may need further evaluation and should be referred, as appropriate, to their health care provider or to a WIC lactation management specialist.

Encourage **ALL** pregnant women to attend prenatal breastfeeding classes prior to deciding how to feed their baby. Women with previous breastfeeding experience should be encouraged to attend. The previous experience may have not been successful, prior education may not have been provided, or the woman may have inaccurate knowledge of breastfeeding. Women who have successfully breastfed in the past can benefit from new information and provide valuable support to other expectant mothers who attend.

At the next WIC visit, question the participant regarding her progress toward achieving the behavior change goal(s) and her experience with the provider to whom she was referred. As appropriate, provide breastfeeding information/education at each subsequent visit.

All follow up and communication with the participant and the provider should be documented in the participant's education record.

Schedule appointments as indicated.

Breastfeeding Woman – Complications or Potential Complications

Breast engorgement:

Engorgement occurs temporarily in all new mothers when the milk comes in a few days after delivery. Continued severe engorgement (risk factor) is often caused by infrequent nursing and/or ineffective removal of milk. This severe breast congestion causes the breast to become hard, shiny, and painful to the touch; and the nipple-areola area to become flattened and tense making it difficult for the baby to correctly latch-on.

Education points:

For engorgement/severe engorgement, encourage the mother to nurse as frequently as possible with the baby latched-on correctly to help reduce breast firmness enough to relieve discomfort. This will require nursing 10 to 15 minutes on each breast every 1 - 3 hours. Other recommendations, include: (1) using moist heat on the breasts for 10 minutes before a feeding (applying a wash cloth soaked in warm water or standing in a warm shower); (2) expressing some milk by hand or with a breast pump to soften the nipple-areola area and breast; (3) gently massaging the breast from the outer margins toward the nipple to help move milk through the ducts; and (4) applying cold compresses to the breast after feedings to reduce swelling and pain.

Recurrent plugged ducts:

Recurrent plugged ducts (risk factor) can be a frustrating problem for breastfeeding women. A clogged duct (tender, hard knot) is a temporary back-up of milk that occurs when one or more of the lobes of the breast does not drain well. This usually results from incomplete emptying of the breast.

Education points:

For recurrent plugged or obstructed ducts, encourage the mother to nurse more frequently and start several consecutive feedings on the affected breast. Moist, hot packs and gentle massage or pressure applied to any tender knots will help milk flow from the obstructed area. Nursing in different positions and with the baby's sucking and/or chin directed toward occluded ducts will also help. Instruct the mother to nurse at least 10 minutes per breast; if the breasts are not well emptied, she should pump or express enough residual milk to become comfortable. Elicit possible risk factors that predispose a woman to recurrent plugged ducts and encourage the mother to avoid such behaviors, including: infrequent or skipped feedings, allowing the breasts to remain overly full, wearing tight constrictive clothing or underwire bras, over vigorously massaging the breast and consistently nursing on one breast only. Any lump that persists for days or weeks must be accurately diagnosed to rule out the possibility of malignancy and additional problems.

Mastitis:

Mastitis (risk factor) is a breast infection that causes a miserable, "flu like" illness accompanied by an inflamed, painful area of the breast. A mother with mastitis may experience the following symptoms: tenderness or redness of the breast, flu-like symptoms, headache, nausea, fever, chills, malaise or fatigue.

Education points:

If a nursing mother develops mastitis, recommend that she call her health care provider so antibiotics can be prescribed promptly. Encourage her to rest as much as possible and continue nursing from both breasts frequently. She can begin nursing on the unaffected side until her let-down is triggered, then move the baby to the affected breast until it is well emptied. Not removing the milk from the affected side will lead to more engorgement and a possible abscess. Moist hot packs applied prior to feeding may help facilitate milk flow. Symptoms usually improve dramatically within 48 hours of beginning antibiotic therapy, and treatment should continue for at least 10 days.

Flat or inverted nipple(s):

Flat or inverted nipple(s) (risk factor) do not become erect when stimulated; an inverted nipple may have a central indentation or retract inward when compressed. Babies may have difficulty latching-on correctly to flat or inverted nipples, however with proper guidance and support mothers can successfully breastfeed.

Education points:

Flat or inverted nipple(s) may interfere with proper latch-on. Mothers with flat nipples should be instructed to compress the breast and areola between two fingers to provide as much nipple as possible to the baby. Wearing a breast shell (see right, note smaller hole for nipple) between feedings may help make the nipple more erect. Drawing the flat or inverted nipple out with an electric or manual pump before each feeding also can facilitate latch-on. Usually such pre-feed pumping is necessary for only a few days until the baby learns to attach correctly.

Cracked, bleeding, or severely sore nipples:

Sore nipples are most often caused by improper baby positioning, latch, or suckling. Severe nipple pain, discomfort lasting throughout feedings, or pain persisting beyond one week postpartum is not typical. Improper latch not only causes sore nipples, but impairs milk flow and leads to diminished milk supply and inadequate infant intake. There are several other causes of severe or persistent nipple pain, including Candida or staph infection.

Education points:

If a woman complains of cracked, bleeding, or severely sore nipples, the cause of the soreness needs to be determined in order to remedy the problem and prevent it from recurring. Review proper positioning and infant attachment, frequency and duration of feeds, and breast care, as appropriate. Review the nutritional status of the mother, focusing especially on protein, zinc, and vitamin C, to assure adequacy for wound healing. Reassure

Breast shells

Breast shell with small hole for flat or inverted nipple(s).



Breast shell with large hole for cracked, bleeding or severely sore nipples.



the mother breastfeeding on the affected nipple(s) is recommended with proper positioning and latch and that small amounts of blood will not harm her baby. Recommend that the mother apply U.S.P. medical grade lanolin to her nipples after nursing to prevent excessive moisture loss and promote healing. The mother may also allow some breast milk to air dry on her nipple(s) as breast milk contains healing properties. Wearing breast shells (see above, note larger hole for sore nipples) will allow the nipple area to dry without irritation from clothing. If infection is suspected, refer the mother to her health care provider and suggest she refrain from direct breastfeeding until properly diagnosed and instead use an electric breast pump to maintain her milk supply while her nipples heal.

Systemic or other illness:

Mothers with **diabetes** should be offered the opportunity to breastfeed unless specific problems are present that prohibit successful breastfeeding.

Systemic hypertension is usually treated with medication. Some medications are secreted in breast milk and may affect the baby, while others may suppress milk production.

Other systemic illnesses include:

- **PKU** – Pregnancy and breastfeeding can be successful if strict dietary controls are begun before conception.
- **Cystic fibrosis** – Mothers with cystic fibrosis may have limited milk production due to low body fat, or they may lose excessive weight while lactating.
- **Eating disorders** – Mothers with eating disorders may lack sufficient body fat to produce abundant milk.
- **Depression** – Those with depression may take medications that are contraindicated during lactation; however not all medications for depression are contraindicated.

Education points:

The breastfeeding mother with diabetes should be reassured that, despite her special challenges, she is capable of breastfeeding successfully. She should be encouraged to follow her prescribed diet, drink adequate amounts of fluid, get moderate exercise, and maintain close communication with her primary care physician, nurse practitioner and/or dietitian. Referral to a diabetes specialist may be necessary if the mother is having any problems regulating her blood sugar level and/or is not under the care of a specialist.

For other health conditions, refer the woman to her health care provider. For conditions that require **prescribed medications**, individual consideration must be made by the woman's health care provider. Encourage the woman to communicate with her health care provider about all medications, including those purchased over-the-counter, she may be taking.

Alcohol and drugs:

Alcohol and some drugs are transmitted into breast milk. Women who are abusing drugs and/or alcohol should not breastfeed. Refer to the previous section on contraindications to

breastfeeding. For women who have an occasional drink, the American Academy of Pediatrics Committee on Drugs suggests if alcohol is used, intake should be limited to 2-2.5 ounces of liquor, 8 ounces of table wine, or 2 cans of beer (servings based on a 132 pound woman).

Education points:

The breastfeeding woman who chooses to have an occasional alcoholic drink should be advised that alcohol does pass into breast milk. Therefore, it is recommended that if she does drink, to do so only occasionally in small amounts, with a meal and after a breastfeeding.

Mother 15 years or younger:

Breastfeeding women 15 years of age or under have not completed their own growth and development, and may have already compromised their nutritional stores during pregnancy which places them at nutritional risk when breastfeeding. Additionally, many teens are emotionally immature and do not fully understand the magnitude of care a baby requires, as well as the increased demands of breastfeeding.

Education points:

If a young mother (15 years or younger) chooses to breastfeed, provide encouragement, support and assurance that she can do so, and emphasize the importance of getting sufficient rest and an adequate diet and fluids. Be available as necessary to provide guidance and support for her decision and to help her prioritize her baby's needs. Show her how to breastfeed and explain pumping options to maintain her milk supply if she must be separated from her baby due to work or school commitments.

Mother 40 years or older:

Breastfeeding women 40 years of age or older (risk factor) are more likely to experience fertility problems and perinatal risk factors that could impact the initiation of breastfeeding. Because evolutionary breast changes may begin in the late 30s, older mothers may have fewer functioning milk glands than younger mothers, resulting in greater difficulty producing an abundant milk supply.

Education points:

If an older mother (40 years or older) chooses to breastfeed, provide similar support and assurance given to other clients. Arrange for close follow up to ensure that an adequate milk supply is produced. Help the mother prioritize other competing demands in her life to enable her to breastfeed often and get breastfeeding well established.

Failure of milk to come in by 4 days postpartum:

Failure of milk to come in by 4 days after delivery (risk factor) may be a result of maternal illness or perinatal complications. Failure of a mother's milk to come in normally by 4 days post-partum may place the baby at nutritional and/or medical risk, making temporary supplementation (banked human milk or formula) necessary until a normal milk supply is established.

Education points:

If a mother reports her milk has not come in by 4 days post-partum, both mother and baby need to have a full breastfeeding assessment. The evaluation will help guide appropriate changes in feeding frequency or technique and determine the need to begin supplementation of the baby. Close follow up will be necessary until breastfeeding is well established or an appropriate feeding plan has been tailored.

Breastfeeding multiple babies:

Breastfeeding multiple babies should be encouraged, yet recognizing it will present some planning and coordination. Mothers nursing multiple babies need to produce more milk than mothers of single babies, which may require the use of a hospital grade electric pump at first to increase milk supply and may require attention to dietary and fluid intake and rest. Feeding triplets is possible, but may be complicated by infant hospitalization due to prematurity and extreme maternal fatigue.

Education points:

Encourage mothers wishing to nurse multiple babies to do so. Offer reassurance that it is possible to produce adequate milk for multiples and provide the guidance necessary to achieve adequate milk production, including optimum calorie, nutrient, and fluid intake and rest, and frequent, on demand nursing.

Tandem nursing:

Tandem nursing (risk factor) refers to breastfeeding two siblings who are not twins or from the same birth. It requires patience and understanding on the mother's part to meet the unique needs of two nursing babies at different developmental stages.

Education points:

The mother who chooses to tandem nurse two babies who are not twins requires support and understanding for her particular parenting style. She will need to prioritize the nutritional and comfort needs of two babies at different stages, without allowing herself to become physically or emotionally depleted. The older baby may compete for nursing privileges, and care must be taken to ensure that the younger baby has first access to the milk supply.

Next Steps

Based on information presented, allow the participant to choose one or two specific actions/goals(s) to assist in correcting the problem or changing the undesirable behavior. This may include reading educational materials, attending a breastfeeding class, attending the scheduled the High Risk Counselor appointment, or making an appointment with their health care provider for further evaluation.

Breastfeeding women with complications or potential complications listed in the nutrition risk factor are considered high risk and require immediate intervention by a WIC lactation management specialist. If the specialist is not available the day the problem is identified, the chart should be given to the High Risk Counselor for follow up within 24 hours. If you

believe the woman needs immediate attention, refer the woman to her health care provider and/or a professional in the community with lactation management expertise.

Referral to a breastfeeding support group, such as La Leche League or hospital based breastfeeding group, may be helpful for the new mother.

At the next WIC visit with the High Risk Counselor in one month, question the participant regarding her progress toward achieving the behavior change goal/s and her experience with the provider to whom she was referred. Follow up on any additional recommendations made by the WIC lactation management specialist documented in the participant's chart. As appropriate, provide breastfeeding information/education at each subsequent visit.

At the next WIC visit with the High Risk Counselor in one month, question the participant regarding her progress toward achieving the behavior change goal(s) and her experience with the provider to whom she was referred. Follow up on any additional recommendations made by the WIC lactation management specialist documented in the participant's chart. As appropriate, provide breastfeeding information/education at each subsequent visit.

All follow up and communication with the participant and the provider should be documented in the participant's chart.

The High Risk Counselor determines the frequency of high-risk follow-up visits. Schedule appointments as indicated.

Breastfeeding Infant – Complications or Potential Complications

Jaundice:

Jaundice (risk factor) in a baby may become evident within 2 to 10 days after birth. The baby appears to have a yellow/orange tinge to his or her skin, the whites of the eyes, and mucous membranes. Jaundice occurs when bilirubin accumulates in the blood because red blood cells break down too quickly, the liver does not process bilirubin as efficiently as it should, or intestinal excretion of bilirubin is impaired. When jaundice occurs in an otherwise healthy, breastfed baby, it is important to distinguish "breast milk jaundice" from "breastfeeding jaundice" and determine the appropriate treatment.

In the condition known as "**breast milk jaundice**," the onset of jaundice usually begins well after the baby has left the hospital, 5 to 10 days after birth, and can persist for weeks and even months. Breast milk jaundice is a normal physiologic phenomenon in the thriving breastfed baby and is due to a human milk factor that increases intestinal absorption of bilirubin. The stooling and urinating pattern is normal (>4 yellow, seedy "milk" stools/day and >6 clear urinations/day). If the bilirubin level approaches 18-20 mg%, briefly interrupting breastfeeding for 24-36 hours results in a dramatic decline in bilirubin level.

"**Breastfeeding jaundice**," is an exaggeration of physiologic jaundice, which usually peaks between 3 and 5 days of life, though it can persist longer. This type of jaundice is a common marker for inadequate breastfeeding. A baby with breastfeeding jaundice is underfed and displays the following symptoms: infrequent or ineffective breastfeeding; failure to gain appropriate weight; infrequent stooling with delayed appearance of yellow stools (i.e., prolonged passage of meconium); and scant dark urine with urate crystals. Improved nutrition usually results in a rapid decline in serum bilirubin concentration.

Jaundice in the newborn requires monitoring because bilirubin is a toxin that quickly destroys cells if allowed to accumulate. Excessive bilirubin can be deposited in the tissues of the body, especially the brain, resulting in brain damage, hearing loss, cerebral palsy, and even death. Furthermore, the underlying cause of jaundice needs to be diagnosed and treated, if necessary, as jaundice sometimes results from serious medical illness, such as infection, liver disease, heart failure, severe anemia, or hypothyroidism. Early visits to the WIC clinic can help identify and refer these babies to their health care providers.

Education points:

The baby who appears jaundiced needs to be seen by their health care provider for determination of the cause and the appropriate treatment.

A baby with "breast milk jaundice" may need to cease breastfeeding to lower bilirubin levels. If it is recommended by a health care provider that the baby not breastfeed for 24-36 hours, an electric breast pump should be used to maintain the milk supply. The expressed milk need not be discarded; it can be stored and fed at a later date.

If the baby is determined to have "breastfeeding jaundice" the baby should continue to breastfeed. Breastfeeding technique and routines need to be optimized to maximize breast milk intake. Encourage the mother to frequently nurse the baby, to wake a sleepy baby, and not to limit duration of feeds. Using an electric breast pump to express residual milk after nursing may help to increase the mother's supply. Twice-weekly weight checks should occur until the baby has regained the birth weight or is gaining at least 1 ounce/day.

Weak or ineffective suck:

A weak or ineffective suck (risk factor) may cause a baby to obtain inadequate milk with breastfeeding and result in a diminished milk supply and an underweight baby. Weak or ineffective suckling can be due to prematurity, low birth weight, a sleepy baby, or physical/medical problems such as heart disease, respiratory illness, or infection. Newborns who receive bottle feedings before beginning breastfeeding or who frequently use a pacifier may have trouble learning the proper tongue and jaw motions required for effective breastfeeding.

Education points:

The baby with an ineffective or weak suck must be evaluated by their health care provider. Since the condition may contribute to or be the result of an insufficient milk supply, the

mother should be advised to use a breast pump to express any residual milk after breastfeedings in order to increase her milk supply. As the mother's milk supply increases and the baby becomes stronger, the baby's ability to suck will improve. In some cases, supplemental milk can be provided simultaneously during breastfeeding, using a feeding tube device (the Supplemental Nursing System). This recommendation should be made after consultation with a lactation consultant or a WIC lactation management specialist.

Difficulty latching-on

Difficulty latching-on to the mother's breast (risk factor) may be due to flat or inverted nipple(s), breast engorgement, or incorrect positioning and breastfeeding technique. Early exposure to bottle feedings and frequent pacifier exposure can predispose babies to "nipple confusion," or difficulty learning to attach to the breast correctly and effectively extract milk.

Education points:

Evaluation of the baby with difficulty latching-on needs to be conducted by the WIC lactation management specialist. If problems with correct breastfeeding technique are identified, then gentle encouragement and demonstration of proper technique may be all that is necessary. If a mother has flat or inverted nipple(s) or breast engorgement that interferes with latch, briefly pumping prior to feeding may be necessary to elongate the nipples or soften the breasts. This is usually required for only a few days.

Neuromuscular problems:

Neuromuscular problems, such as those associated with Down Syndrome, may result in ineffective suckling and inadequate breastfeeding. The baby with Down Syndrome may be extremely placid, difficult to awaken or keep awake, and have low muscle tone that results in poor suckling ability. Because babies with Down syndrome are highly susceptible to infections, the immune benefits of human milk make breastfeeding particularly advantageous to these babies. With skilled guidance and patience, many babies with Down syndrome can learn to breastfeed effectively. Mothers may need to use an electric breast pump to maintain an abundant milk supply.

Education points:

The mother with an baby with neuromuscular problems, including Down Syndrome and other trisomies, should be referred to the High Risk Counselor for evaluation and counseling. This mother will need ongoing encouragement and guidance to successfully breastfeed her baby. She should be encouraged and supported to breastfeed as long as possible and/or to consider pumping her breasts to supply her baby with her milk. Providing expressed breast milk for her baby can be highly rewarding to the mother as she sees her baby thrive on her own milk. If problems persist, the mother should not be made to feel guilty if she decides to discontinue breastfeeding. Nursing or pumping milk for a baby with a neuromuscular problem can be a trying experience. Whatever feeding decision she makes, support for the mother is critical, and she should be commended for providing any breast milk for her baby.

Oral anatomic problems:

Babies with oral anatomic problems, such as cleft lip and/or palate, can have significant feeding problems and other complications, such as ear infections, dental abnormalities, and speech and language problems. These babies require extra time and patience to learn to feed successfully.

Education points:

The mother of a baby with oral defects who has successfully initiated and maintained breastfeeding will need ongoing encouragement and support. The baby may be hospitalized to repair the defect, and the mom will need support to maintain her milk supply while her baby is hospitalized. During some hospitalizations she will be able to and should nurse her baby, while at other times it will be necessary to pump her breasts and store the milk for hospital feedings or future feedings at home.

Use of an electric breast pump to help make milk expression easier may be justified. Counsel the mother to pump each breast for 10 minutes to empty them well. Double pumping not only saves time, but it may help produce more milk. Encourage the mother to drink plenty of fluids (water, milk, or juice) to thirst and to eat a nutritionally balanced diet.

Excessive infant weight loss:

Infant weight loss less than or equal to 92 percent of birth weight, inadequate weight gain (not back to birth weight by 2 weeks of age), or inadequate stooling for age, and less than 6 wet diapers per day (risk factor) are probable indicators that the breastfed baby is not receiving adequate milk. Not only is the baby at risk for failing to thrive, but the mother's milk supply is at risk for rapidly diminishing due to ineffective removal of milk. The breastfed baby with inadequate caloric intake must be identified early and the situation remedied promptly to avoid long-term consequences of dehydration or nutritional deprivation. By 4 to 5 days of age, breastfed babies should start to gain about an ounce each day, or 5 to 7 ounces each week. Most will surpass their birth weight by 10 to 14 days.

Education points:

A baby with excessive weight loss, inadequate weight gain, inadequate stooling and/or less than 6 wet diapers per day needs immediate evaluation to identify and remedy the cause. If the baby is obtaining insufficient milk, not only will the baby be undernourished, but the mother's milk supply will rapidly decrease. The baby may be an otherwise healthy, "slow gainer" or may be having difficulty gaining because of ineffective nursing, infrequent feedings, a low milk supply, a poor letdown reflex or other feeding or physiological problem. Explain to the mother that let-down is a conditioned reflex and that she should nurse her baby whenever she perceives her milk letting down. Using relaxation techniques and drinking fluids prior to nursing can help stimulate the milk ejection reflex. Review proper positioning and appropriate frequency and duration of feeds. Encourage the mother to breastfeed or pump frequently to maintain her milk supply and to get as much breast milk into her baby as possible. Discourage the use of pacifiers or other gadgets to calm a fussy baby.

The mother can pump her breasts after feedings and use any expressed milk she obtains to supplement her baby's intake at the breast. Supplementing with expressed breast milk or formula may be required to achieve catch-up weight gain and maintenance growth until the baby begins nursing more effectively and the mother's milk supply increases. If ongoing pumping becomes necessary, the mother will need encouragement and frequent contacts to continue breastfeeding.

Galactosemia:

Galactosemia is a rare hereditary disorder of galactose metabolism. Breast milk contains high levels of lactose, which breaks down to glucose and galactose. Breastfeeding is contraindicated, as the baby is unable to metabolize galactose. A galactose-free diet is essential to prevent rapid progression of disease leading to brain damage and death.

Education points:

Mothers who are unable to breastfeed their babies because they have galactosemia may feel enormous disappointment about the loss of this aspect of their mothering role. They also may have a sense of failure. These women will need the opportunity to grieve the loss of their anticipated breastfeeding experience and should be given support and reassurance that their baby will receive adequate nutrition from formula to be healthy.

Next Steps

Based on information presented, allow the participant to choose one or two specific actions/goal(s) to assist in correcting the problem or changing the undesirable behavior. This may include reading educational materials, attending a breastfeeding class, attending the scheduled High Risk Counselor appointment, or making an appointment with their health care provider for further evaluation. Breastfeeding babies with complications or potential complications identified in the breastfeeding risk factors are considered high risk and require immediate intervention by the WIC lactation management specialist. If the specialist is not available the day the problem is identified, and you believe the baby needs immediate attention, the baby should be referred to their health care provider and/or a professional in the community with lactation management expertise.

Referral to a breastfeeding support group, such as La Leche League or hospital based breastfeeding group, may be helpful for the new mother.

At the next WIC visit, question the participant regarding her progress toward achieving the behavior change goal/s and her experience with the provider to whom she was referred. Follow up on any additional recommendations made by the lactation management specialist documented in the participant's chart. As appropriate, breastfeeding information/education should be provided at each subsequent visit. All follow up and communication with the participant and the provider should be documented in the participant's chart. The WIC High Risk Counselor determines the frequency of high-risk follow-up visits. Schedule appointments as indicated.

Section IX: Resources

Books for Parents

- “A Medication Guide for Breastfeeding Moms” by Thomas Hale, Ph.D. and Ghia McAfee, Ph.D.
- “Breastfeeding: A Parent's Guide” by Amy Spangler, B.S.N., M.N., I.B.C.L.C.
- “Breastfeeding 101” by Sue Tiller, R.N. IBCLC
- “Breastfeeding Made Simple” by Nancy Mohrbacker, IBCLC and Kathleen Kendall-Tackett, Ph.D., IBCLC
- “The Essential Guide to Breastfeeding” by Marianne Neifert, M.D.
- “The Nursing Mother's Companion” by Kathleen Huggins, R.N., M.S.
- “The Womanly Art of Breastfeeding” by La Leche League International

Books for Health Care Providers

- “Breastfeeding: A Guide for the Medical Profession” by Ruth Lawrence, MD
- “Breastfeeding Handbook for Physicians” by the American Academy of Pediatrics and The American College of Obstetrics and Gynecologists
- “Lactation Management: Techniques, Tips, and Tools for Health Care Providers” by Maureen Hoag Dann, P.NP., I.B.C.L.C.
- “Medications and Mothers’ Milk” by Thomas Hale, Ph.D.
- “The Breastfeeding Atlas” by Barbara Wilson-Clay, M.S., I.B.C.L.C, and Kay Hoover, M.Ed., I.B.C.L.C
- “The Breastfeeding Answer Book” by La Leche League International

Videos for Health Care Providers

- Breastfeeding Basics, Breastfeeding Comprehensive and Breastfeeding Intensive by Mother of 7 at www.breastfeedingvideo.com/
- Better Breastfeeding: Your Guide to a Healthy Start; Better Breastfeeding: A Guide for Teen Parents; Breastfeeding for Working Mothers by InJoy videos at www.injoyvideos.com
- Breastfeeding: You Can Do It! by Pamela Wiggins [www. http://breastfeedingbooks.com/](http://breastfeedingbooks.com/)
- dad+baby: A 10 Minute Guide to Breastfeeding <http://breastfeedingbooks.com/>
- Breastfeeding: How-To and Why-To video set www.vida-health.com/

Websites for Parents

- Colorado Breastfeeding Coalition www.cobfc.org
- Kelly Mom <http://www.kellymom.com/>
- Breastfeeding.com <http://www.breastfeeding.com/>

Websites for Health Care Providers

- Breastfeeding Essentials (community and provider resources) www.breastfeedcolorado.com

- Drugs and Medications Database Visit:
<http://toxnet.nlm.nih.gov/newtoxnet/lactmed.htm>
- Jack Newman, M.D. latch video clips
http://www.nbc.ca/index.php?option=com_content&view=category&layout=blog&id=6&Itemid=13
- Hand expression with Jane Morton, MD of Stanford School of Medicine
<http://newborns.stanford.edu/Breastfeeding/HandExpression.html>
- Marmet Hand Expression Technique with Melissa Nagin
<http://video.about.com/breastfeeding/Hand-Expression-Technique.htm>
- Academy of Breastfeeding Medicine Breastfeeding Protocols
<http://www.bfmed.org/Resources/Protocols.aspx>

Congratulations!

You are now better informed about breastfeeding and can provide encouragement, support and assistance to all WIC women. Thanks to you, more women and babies can receive the best nutrition and the best start to life!

Training Activity

Once you have completed this module, please take the on-line test. For access instructions please visit the Colorado WIC website. **You'll do great!**