## Breastfeeding Complications or Potential Complications

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# 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 infant'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 infants should be assessed at each WIC visit for breastfeeding complications or potential complications. Early identification is key to helping a mother and infant have a positive and successful breastfeeding experience. Identification of complications can be made by using the WIC Questionnaire/s, infant growth grid and through discussion with the mother.

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.

Breastfeeding women and infants identified with a complication or potential complications (listed below) are considered high risk and must be referred to the WIC RD/RN within 24 hours. The WIC RD/RN is responsible for conducting a full evaluation of the situation, determining the intervention and need for additional referral and follow up. In the event the WIC RD/RN is not available a referral must be made to the participant's health care provider.

Prenatal Woman

Prenatal women identified to have a complication or potential complication should be provided with educational information and referral during her routine WIC appointments.

Complications or Potential Complications

- flat or inverted nipples
- history of previous lactation failure
- breast surgery including augmentation, reduction and biopsy
- unusual breast appearance, such as marked breast asymmetry or tubular hypoplastic breasts
- history of breast radiation
- woman who is presently lactating
- carrying multiple infants

Breastfeeding Woman

Complications or Potential Complications

Breastfeeding women and infants identified with a complication or potential complications (listed below) are considered high risk and must be referred to the WIC RD/RN within 24 hours.

- severe breast engorgement
- recurrent plugged or obstructed ducts
- mastitis (fever or flu-like symptoms with localized breast tenderness)
- flat or inverted nipples
- cracked, bleeding, or severely sore nipples
- mother with systemic illness such as diabetes, hypertension, PKU, Cystic Fibrosis, eating disorders
- 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
- breastfeeding multiple infants
- tandem nursing (breastfeeding siblings who are not twins)

Breastfeeding Infant

Complications or Potential Complications

- 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
- infant with galactosemia

Prenatal Women identified to have a complication or potential complication (listed below) should be provided education-al information and referral during her routine WIC appointment.

## Pregnant Woman - Complications or Potential Complications

Flat or Inverted Nipples

- **Flat or inverted nipple/s** do not become erect when stimulated; an inverted nipple may have a central indentation or retract inward when compressed. Some infants 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 practitioner 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. 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.

Prior Lactation Failure

- **Prior lactation failure** may have occurred, due to a variety of reasons. Understanding the reasons for the previous failure can improve success with subsequent 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 lactation 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

- **Breast surgery** including breast augmentation, 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 infant after delivery will be required to assure the infant 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 negligible milk from the irradiated breast due to irreversible damage to the milk-producing glands. However, the woman still can 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 will 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 infant 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.

Presently Lactating

- A pregnant woman who is **presently lactating** 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, she should be referred to her obstetrical care provider who may discourage the practice for women with high-risk pregnancies.

  *Education Points:*
  When the **pregnant woman is still lactating,** explain that her milk supply probably will decline and that her breastfed baby will 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.

Multiple Infants

- The birth of **multiple infants** should not prevent a woman from breastfeeding, although multiple infants 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 those mothers wishing to nurse **multiple infants** to do so. Offer 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; and appropriate frequency of breastfeeding. As with other participants, provide information on breastfeeding basics, and offer specific educational materials on breastfeeding multiple infants. Encourage her to enlist sources of support during the postpartum period.

Set a Behavior Change Goal

Based on information presented, encourage participants to choose one or two specific actions 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 physician for further evaluation.

Referral

Pregnant women with potential breastfeeding complications may need further evaluation and should be referred, as appropriate, to their health care provider or to the WIC RD/RN.

Encourage all pregnant women to attend prenatal breastfeeding classes prior to deciding how to feed their infant. Those women who have successfully breastfed in the past can benefit from new information and provide valuable support to other expectant mothers who attend.

Follow Up

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 chart.

Schedule appointments as indicated.

Breastfeeding Women identified with a complication or potential complication (listed below) are considered high risk and must be referred to the WIC RD/RN within 24 hours. In the event the WIC RD/RN is not available, a re-ferral must be made to the participant's health care provider.

## Breastfeeding Woman - Complications or Potential Complications

Breast Engorgement

- **Breast engorgement** occurs temporarily in all new mothers when their milk comes in a few days after delivery. Continued **severe engorgement** 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 infant latched-on correctly to help reduce breast firmness enough to relieve discomfort. This will require nursing 10 to 15 minutes on each side every 1½-3 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** 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 don't 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 directed toward occluded ducts

will also help. Instruct the mother to nurse at least 10 minutes per side; if the breasts aren't 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.

Mastitis

- **Mastitis** 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 physician 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. 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 Nipples

- **Flat or inverted nipple/s** do not become erect when stimulated; an inverted nipple may have a central indentation or retract inward when compressed. Infants 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 nipples** 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 infant. Wearing a breast shell 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 infant learns to attach correctly.

Cracked, Bleeding, or Severely Sore Nipples

- **Cracked, bleeding, or severely sore nipples** are most often caused by improper infant positioning, latch-on, or suckling. Severe nipple pain, discomfort lasting throughout feedings, or pain persisting beyond one week postpartum is atypical. Improper infant latch-on 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 the mother 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. If infection is suspected, refer the mother to her health care provider. When nipple pain is so severe that it interferes with direct breastfeeding, suggest the mother use an electric breast pump to maintain her milk supply while her nipples heal.

Systemic or Other Illness
- Diabetes
- Systemic Hypertension
- PKU
- Cystic Fibrosis
- Eating Disorders

- **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 drugs. Some drugs are secreted in breast milk and may affect the infant, while others may suppress milk production.

  Other systemic illnesses: **PKU** - Pregnancy and breastfeeding can be successful if strict dietary controls are begun before conception. Mothers with **Cystic Fibrosis** may have limited milk production due to low body fat, or they may lose excessive weight while lactating. Mothers with **eating disorders** may lack sufficient body fat to produce abundant milk. Those with depression may take medications that are contraindicated during lactation.

*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 that require **prescribed medications**, individual consideration must be made. Encourage the woman to communicate with her health care provider about all medications 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, "Conditions that Contraindicate 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.

Age Considerations
- 15 years of age or under
- 40 years of age or older

- 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 lactating. Additionally, many teens are emotionally immature and do not fully understand the magnitude of care an infant requires, as well as the increased demands of breastfeeding.

*Education Points:*
If a young mother **(15 years or younger)** chooses to breast-fed, provide 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 discreetly and explain pumping options to maintain her milk supply if she

must be separated from her infant due to work or school commitments.

Breastfeeding women **40 years of age or older** are more likely to experience fertility problems and perinatal risk factors that could impact the initiation of breastfeeding. Because involutional 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.

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 postpartum** may be a result of maternal illness or perinatal complications. Failure of a mother's milk to come in normally by 4 days postpartum may place the infant at nutritional and/or medical risk, making temporary supplementation 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 infant need to have a full breast-feeding assessment. The evaluation will help guide appropriate changes in feeding frequency or technique and determine the need to begin formula supplementation of the infant. Close follow up will be necessary until breastfeeding is well established or an appropriate feeding plan has been tailored.

Breastfeeding Multiple Infants

- Breastfeeding **multiple infants** should not be discouraged, but it does present a challenge. Mothers nursing multiple infants need to produce more milk than mothers of singletons, which requires 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 infants** 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, demand

nursing.

Tandem Nursing

- **Tandem nursing** refers to breastfeeding two siblings who are not twins. It requires a great deal of 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.

Set a Behavior Change Goal

Based on information presented, allow the participant to choose one or two specific actions to assist in correcting the problem or changing the undesirable behavior. This may include reading educational materials, attending a breastfeeding class, attending the scheduled RD/RN appointment, or making an appointment with their physician for further evaluation.

Referral

Breastfeeding women with complications or potential complications are considered high risk and require immediate intervention by the RD/RN. If the RD/RN is not available the day the problem is identified, the chart should be given to the RD/RN for follow up within 24 hours. If the RD/RN is not available for follow up within 24 hours or if you feel 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 may be helpful for the new mother.

Follow Up

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 RD/RN 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 RD/RN determines the frequency of high-risk follow-up visits. Schedule appointments as indicated.

Breastfeeding Infants identified with a complication or potential complication (listed below) are considered high risk and must be referred to the WIC RD/RN within 24 hours. In the event the WIC RD/RN is not available, a referral must be made to the participant's health care provider.

## Breastfeeding Infant - Complications or Potential Complications

Jaundice

- **Jaundice** in an infant may become evident within 2 to 10 days after birth. The infant appears to have a yellow 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 infant, 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 infant 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 voiding pattern is normal (>4 yellow, seedy "milk" stools/day and >6 clear voids/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. An infant 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 infants to their primary health care providers.

*Education Points:*
The infant who appears jaundiced needs to be seen by their health care provider for determination of the cause and the appropriate treatment.

An infant with **"breast milk jaundice"** may need to cease breastfeeding to lower bilirubin levels. If it is recommended that the infant 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 infant is determined to have **"breastfeeding jaundice"** the infant should continue to breastfeed. Breastfeeding technique and routines need to be optimized to maximize infant intake. Encourage the mother to frequently nurse the infant, 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 infant has regained the birth weight or is gaining at least 1 ounce/day.

Weak or Ineffective Suck

- A **weak or ineffective suck** 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 infant with an **ineffective or weak suck** must be evaluated by their health care professional. 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 infant 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 specialist or the RD/RN.

Difficulty Latching-On to Mother's Breast

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

*Education Points:*
Evaluation of the infant with **difficulty latching-on** needs to be conducted by the RD/RN. 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 nipples or breast engorgement that interferes with latch-on, 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 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 infants 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 infants 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 infant with **neuromuscular** problems, including Down syndrome and other trisomies, should be referred to the RD/RN for evaluation and counseling This mother will need ongoing encouragement and guidance to successfully breastfeed her infant. She should be supported to breastfeed as long as possible or to consider pumping her breasts to supply her infant with her milk. Providing expressed breast milk for her infant can be highly rewarding to the mother as she sees her infant 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 an infant 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 infant.

Oral Anatomic Problems

- Infants 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 an infant with **oral defects** who has successfully initiated and maintained breastfeeding will need ongoing encouragement. The infant may be hospitalized to repair the defect, and the mom will need support to maintain her milk supply while her infant is hospitalized. During some hospitalizations she will be able to and should nurse her infant, 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
- Inadequate Infant Weight Gain
- Inadequate Stooling for Age
- Less than 6 Wet Diapers/Day

- **Excessive infant weight loss after birth (greater than ½ pound weight loss from birth weight), inadequate infant weight gain (not back to birth weight by 2 weeks of age), inadequate stooling for age, and less than 6 wet diapers per day** are probable indicators that the breastfed infant 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 infant 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 infant is obtaining insufficient milk, not only will the baby be undernourished, but the mother's milk supply will rapidly decrease. The infant 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 let-down reflex or other feeding 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 injection 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 infant as possible. Discourage the use of nipple shields and 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 infant'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 infant 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. Human milk contains high levels of lactose, which breaks down to glucose and galactose. Breastfeeding is contraindicated, as the infant 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 infants 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 infant will receive adequate nutrition from formula to be healthy.

Set a Behavior Change Goal

Based on information presented, allow the participant to choose one or two specific actions to assist in correcting the problem or changing the undesirable behavior. This may include reading educational materials, attending a breastfeeding class, attending the scheduled RD/RN appointment, or making an appointment with their physician for further evaluation.

Referral

Breastfeeding infants with complications or potential complications are considered high risk and require immediate intervention by the RD/RN. If the RD/RN is not available the day the problem is identified, the chart should be given to the RD/RN for follow up within 24 hours. If the RD/RN is not available for follow up within 24 hours or if you feel the infant needs immediate attention, the infant 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, may be helpful for the new mother.

Follow Up

At the next WIC visit, questions 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 RD/RN 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 RD/RN determines the frequency of high-risk follow-up visits. Schedule appointments as indicated.