



## Lactation Review: Breastfeeding Basics

**This course has been awarded  
three (3.0) contact hours.**

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### **Acknowledgements**

***RN.com acknowledges the valuable contributions of...***

***...Nadine Salmon, MSN, BSN, IBCLC***, the Clinical Content Manager for RN.com. She is a South African trained Registered Nurse, Midwife and International Board Certified Lactation Consultant. Nadine obtained an MSN at Grand Canyon University, with an emphasis on Nursing Leadership. Her clinical background is in Labor and Delivery and Postpartum nursing, and she has also worked in

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Medical Surgical Nursing and Home Health. Nadine has work experience in three countries, including the United States, the United Kingdom and South Africa. She worked for the international nurse division of American Mobile Healthcare, prior to joining the Education Team at RN.com. Nadine is a nurse planner for RN.com and is responsible for all clinical aspects of course development. She updates course content to current standards and develops new course materials for RN.com.

### **Purpose and Objectives**

The purpose of this course is to outline the process of breastfeeding initiation and to discuss basic lactation issues commonly dealt with during the early postpartum period.

After successful completion of this course, you will be able to:

1. Describe the anatomy and physiology of breastfeeding.
2. Identify the signs of a good feed and offer an advantage of each of the three basic nursing positions and a disadvantage of each position.
3. Describe three interventions you can perform to promote successful breastfeeding in the early postpartum period.
4. Define two breastfeeding challenges and steps to resolve them.
5. Identify one contraindication to breastfeeding in the US.

### **Introduction**

Human milk is species-specific and is nature's way of providing the perfect nutrition to an infant. All alternative feeding preparations differ markedly from human breast milk, making human milk uniquely superior for infant feeding (American Academy of Pediatrics [AAP], 2014).

Exclusive breastfeeding is the reference or normative model against which all alternative feeding methods should be measured with regard to growth, health, development, and all other short- and long-term outcomes (AAP Position Statement on Breastfeeding, 2014).

Research shows that breastfeeding has many advantages for the infant and the mother. This course outlines the physiology of lactation; the "how to" of breastfeeding, and discusses some challenges that a new mother might face. Information and solutions are also offered as the course progresses.

### **Benefits of Breastfeeding**

There are many benefits to breastfeeding, even if a mother is only able to nurse for a short time. Benefits include maternal physical and psychological advantages; optimal infant nutrition and growth potential; and several economic, family and environmental advantages.

#### Maternal Health Benefits

- **Weight loss:** Nursing uses up extra calories, making it easier to lose the pounds of pregnancy. Breastfeeding helps women return to pre-pregnant weight and shape quicker than formula feeding.
- **Decreased postpartum bleeding:** High levels of circulating oxytocin promotes the rapid involution of the uterus, resulting in less postpartum bleeding, and the uterus returns to its original size sooner.
- **Lowered risk of cancer:** Breastfeeding lowers the risk of breast and ovarian cancers, and

possibly decreases the risk of hip fractures and osteoporosis in the postmenopausal period.

- **Economical and timely:** Breastfeeding saves time and money. There is no need to purchase, measure, and mix formula. There are no bottles to sterilize. Human milk straight from the breast is always sterile. A mother can give her baby immediate satisfaction by providing her breast milk when the baby is hungry.
- **Natural child spacing:** Attributable to lactational amenorrhea, with exclusive breastfeeding.
- **Promotion of bonding and relaxation:** Breastfeeding requires a mother to take some quiet relaxed time for herself and her baby. Breastfeeding mothers may have increased self-confidence, feelings of closeness, and bonding with their infants.
- **Positive feelings:** Physical contact is important to a newborn and can help them feel more secure, and warm and comforted.

(Beaumont Women's Health, 2014)

### **Infant Nutrition and Growth**

- Breast milk is the most complete form of nutrition for infants. A mother's milk has the right amount of fat, sugar, water, and protein that is needed for a baby's growth and development and it changes to meet the nutritional needs of the baby at any given time (Beaumont Women's Health, 2014). Most babies find it easier to digest breast milk than they do formula.
- Breastfed infants tend to gain less unnecessary weight and tend to be leaner. This may result in being less overweight later in life (Myers, 2009).
- Studies have shown that breastfed children have greater brain development than non-breastfed children, due to the presence of long chain polyunsaturated fats present in human milk (Ricardo & Peirano, 1999).
- Longer duration of breast feeding is associated with increased scores in cognitive, language and motor development at 18 months of age (Leventakou et al., 2013).

### **Test Yourself**

Breast milk:

- A. Is easy to digest.
- B. Is constant in composition.
- C. Contains short chain polyunsaturated fats.

The correct answer is: A. Breast milk is easy to digest.

Most babies find it easier to digest breast milk than they do formula. A mother's milk has the right amount of fat, sugar, water, and protein that is needed for a baby's growth and development, and changes to meet the nutritional needs of the baby at any given time (Beaumont Women's Health, 2014). Human milk contains long chain polyunsaturated fats, important in brain development.

### **Enhanced Infant Immune System and Resistance to Infection**

Research provides strong evidence that human milk decreases the incidence and / or severity of a wide range of infectious diseases, including:

- Bacterial meningitis
- Bacteremia

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- Diarrhea
- Respiratory tract infections
- Necrotizing enterocolitis
- Otitis media
- Urinary tract infection
- Late-onset sepsis in preterm infants
- Sudden Infant Death Syndrome (SIDS)

(Myers, 2009).

## **Enhanced Infant Immune System and Resistance to Infection**

### **Additional Info**

Breastfed infants' immune systems have a better response to immunizations like polio, tetanus, diphtheria, and Haemophilus influenza, and to respiratory syncytial virus infection, a common infant respiratory infection (Beaumont Women's Health, 2014).

In addition, neonatal infant mortality rates in the United States are reduced by 21% in breastfed infants (AAP, 2014a).

The benefits of breastfeeding are not limited to infancy; they extend into childhood and even into adulthood. A history of breastfeeding is clearly associated with decreased rates of common conditions, including eczema and obesity, and decreased rates of serious diseases, including type 2 diabetes and childhood leukemias (Myers, 2009).

**Human milk contains several bioactive factors that protect against infection, modulate immune function and provide anti-inflammatory effects. Breastfed babies are more able to fight off infection and disease, are sick less often and have fewer visits to healthcare providers (Womenshealth.gov, 2014).**

### **Test Yourself**

There is an increased risk of Sudden Infant Death Syndrome (SIDS) in breastfed babies who are fed (but do not co-sleep) in the same bed as the mother.

- A. True
- B. False

The correct answer is: B. False.

Research provides strong evidence that human milk decreases the incidence and / or severity of a wide range of infectious diseases, including SIDS.

### **Benefits to Society**

In addition to specific health advantages for infants and mothers, economic, family, and environmental benefits have been described:

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**Reduction in healthcare costs:** Total medical care costs for the nation are lower for fully breastfed infants than never-breastfed infants since breastfed infants typically need fewer sick care visits, prescriptions, and hospitalizations (AAP, 2014).

In addition, breastfeeding has the potential to decrease annual healthcare costs up to \$3.6 billion in the United States (AAP, 2014a) and decrease costs for public health programs such as the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC).

**Improved Workforce Productivity:** Breastfeeding mothers miss less work, as their infants are sick less often. Employer medical costs also are lower and employee productivity is higher (AAP, 2014a).

### The Breastfeeding Report Card

The CDC has published the “Breastfeeding Report Card,” which highlights the degree of progress in achieving the breastfeeding goals of the Healthy People 2010 targets as well as the 2020 targets. The results are represented in the table below:

TABLE 1 Healthy People Targets 2010 and 2020(%)			
	2007 <sup>a</sup>	2010 Target	2020 Target
Any breastfeeding			
Ever	75.0	75	81.9
6 mo	43.8	50	60.5
1 y	22.4	25	34.1
Exclusive breastfeeding			
To 3 mo	33.5	40	44.3
To 6 mo	13.8	17	23.7
Worksite lactation support	25	—	38.0
Formula use in first 2 d	25.6	—	15.6

*Note: The 2007 data was reported in 2011 (CDC, 2014).*

### Breastfeeding Initiation Rates in the United States

The rate of initiation of breastfeeding for the total US population based on the latest National Immunization Survey data are 75% (AAP, 2014a). Despite this high overall breastfeeding initiation rate, breastfeeding initiation rates among minority groups are significantly lower. For example, the breastfeeding initiation rate for the Hispanic population was 80.6%, but for the non-Hispanic black or African American population, it was as low as 58.1%.

Among low-income mothers (participants in the Special Supplemental Nutrition Program for Women, Infants, and Children [WIC]), the breastfeeding initiation rate was 67.5%, but in those with a higher income ineligible for WIC, it was 84.6% (AAP, 2014a).

Similar disparities are age-related; mothers younger than 20 years initiated breastfeeding at a rate of 59.7% compared with the rate of 79.3% in mothers older than 30 years. The lowest rates of initiation

were seen among non-Hispanic black mothers younger than 20 years, in whom the breastfeeding initiation rate was 30% (AAP, 2014a).

### **Test Yourself**

Breastfeeding initiation rates are lowest in:

- A. Caucasian women, over the age of 30.
- B. Hispanic women, between the ages of 30 – 35.
- C. African-American women, under the age of 20.

The correct answer is: C. African-American women, under the age of 20.

The breastfeeding initiation rate for the Hispanic population was 80.6%, but for the non-Hispanic black or African American population, it was as low as 58.1%. Mothers younger than 20 years initiated breastfeeding at a rate of 59.7% compared with the rate of 79.3% in mothers older than 30 years. The lowest rates of initiation were seen among non-Hispanic black mothers younger than 20 years, in whom the breastfeeding initiation rate was 30% (AAP, 2014a).

### **Healthy People 2020**

Although, over the past decade, there has been a modest increase in the rate of “any breastfeeding” at three and six months, none of the Healthy People 2010 targets have been reached, at the time of publishing this course.

Rates of exclusive breastfeeding are far from the Healthy People 2010 targets, with only 13% of the US population meeting the recommendation to breastfeed exclusively for 6 months. Thus, it appears that although the breastfeeding initiation rates have approached the 2010 Healthy People targets, the targets for duration of any breastfeeding and exclusive breastfeeding have not been met (United States Breastfeeding Committee, 2014).

Furthermore, 24% of maternity services provide supplements of commercial infant formula as a general practice in the first 48 hours after birth. These observations have led to the conclusion that the disparities in breastfeeding rates are also associated with variations in hospital routines, independent of the populations served. As such, it is clear that greater emphasis needs to be placed on improving and standardizing hospital-based practices to realize the newer 2020 targets (United States Breastfeeding Committee, 2014).

### **Contraindications to Breastfeeding**

Although breastfeeding is optimal for infants, there are a few conditions under which breastfeeding may not be in the best interest of the infant.

Breastfeeding is contraindicated in infants in the following circumstances:

- Galactosemia (galactose 1-phosphate uridylyltransferase deficiency) in the infant. This is a primary lactase deficiency, in which breast milk cannot be tolerated, as the lactose in breast milk cannot be digested. Symptoms include diarrhea and vomiting. Babies with severe galactosemia may have liver problems, malnutrition, or mental retardation. Babies with these conditions must be fed formula that comes from plants, such as soy milk or a special galactose-free formula.
- Active untreated TB (tuberculosis disease) or are human T-cell lymphotropic virus type I–or II–positive.
- Diagnostic or therapeutic radioactive isotope usage or maternal exposure to radioactive materials

(for as long as there is radioactivity in the milk); mothers who are receiving anti-metabolites or chemotherapeutic agents or a small number of other medications until they clear the milk.

- Maternal Drug abuse: Mothers who are using street drugs.
- Active herpes simplex lesions on a breast (infant may feed from other breast if clear of lesions).
- HIV (human immunodeficiency virus) is a contra-indication to breastfeeding in the United States. In developing areas of the world, the mortality risks associated with artificial feeding may outweigh the possible risks of acquiring HIV infection.
- Hepatitis C may be transmitted through breast milk. Bleeding or cracked nipples on the breast of a woman with Hepatitis C puts a breastfeeding infant at higher risk for getting the virus.

(AAP, 2014a).

### **Test Yourself**

Breastfeeding in the United States is contraindicated if the mother has HIV or hepatitis C.

- A. True
- B. False

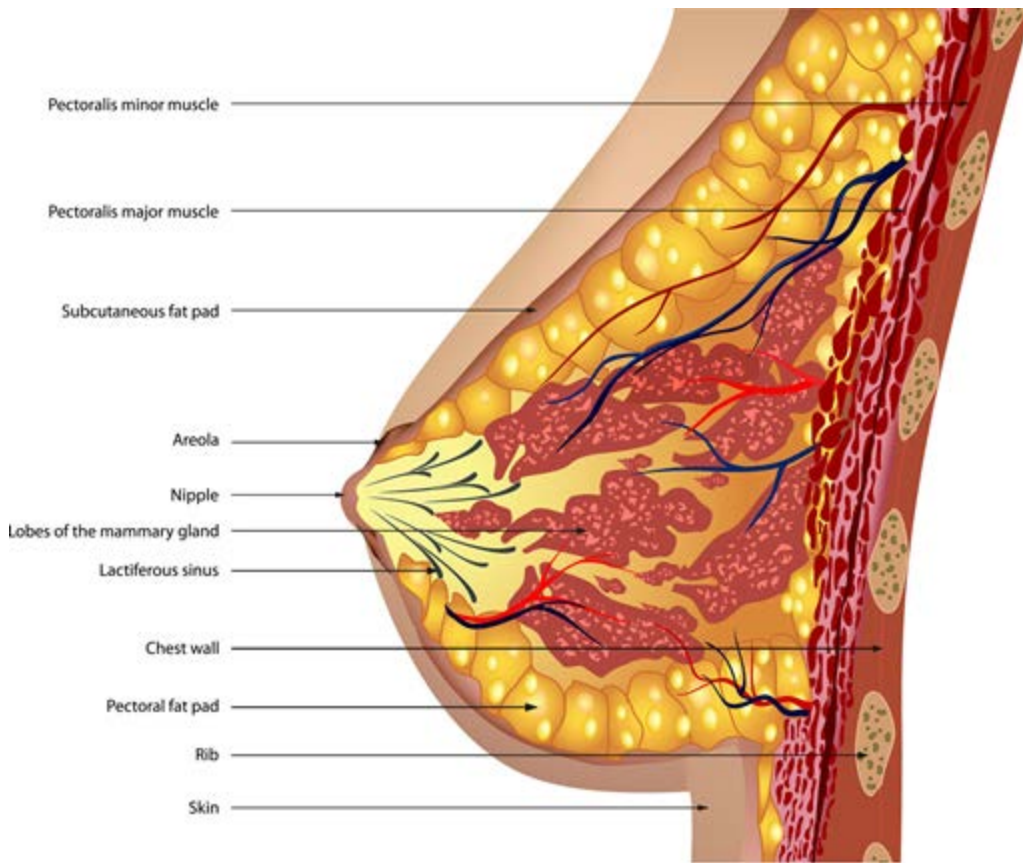
The correct answer is: A. True.

HIV and Hepatitis C are contraindicated in breastfeeding in the United States, as HIV and the Hepatitis C virus may be transmitted through breast milk.

### **Anatomy of the Breast**

Becoming familiar with the anatomy of the breast and the physiology of milk production are helpful in understanding the breastfeeding process. The breast itself is a gland that is composed of several parts, including glandular tissue, connective tissue, blood, lymph, nerves, and fatty tissue.

In this diagram, you can see that each mammary gland forms a lobe in the breast. Each lobe consists of a single branch of alveoli and milk ducts that narrows into an opening in the nipple. The number of milk ducts present in the breast can vary greatly. Each breast has about 15 to 25 lobes.



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### **Anatomy of the Breast**

The breast actually begins developing in the first few weeks of gestation, long before birth. The mammary gland, the gland that produces milk, does not become fully functional until lactation begins. When a woman's breasts become swollen during pregnancy, this is a sign that the mammary gland is stimulated and getting ready to produce milk.

Milk is secreted from the alveoli cells. When the alveoli cells are stimulated by oxytocin, they contract and push the milk into the ductules and down into larger mammary ducts. These mammary ducts are underneath the nipple and areola and they widen to collect the milk. Prior to 2006, these widened ducts were called lactiferous sinuses. However, research has since shown that lactiferous sinuses do not exist. Instead, milk accumulates in the back of the breast, and when suckling occurs, the smooth muscles of the gland push more milk forward, into the baby's mouth. The nipple tissue protrudes and becomes firmer with stimulation, which makes it more flexible and easier for the baby to grasp in the mouth.

Note that the fatty tissue in the breast determines the overall size of a woman's breast. Breast size does not have an effect on the amount of milk or the quality of milk a woman produces.

### **Hormonal Control of Breastfeeding**

Hormones play a key role in breastfeeding. Four key hormones involved in lactation are estrogen, progesterone, prolactin and oxytocin.

The increase in estrogen and progesterone levels during pregnancy stimulates the ductules, alveoli

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and lobes to grow. Prolactin adds to the growth of breast tissue.

After delivery, estrogen levels drop and remain low in the first several months of breastfeeding. Prolactin levels rise during feedings as the nipple is stimulated. As prolactin is released from the brain into the mother's bloodstream during breastfeeding, alveolar cells respond by producing milk.

Oxytocin is the hormone responsible for let-down, or milk-ejection to occur. It stimulates the alveoli cells to contract so the milk can be pushed down into the ducts. Oxytocin also contracts the muscle of the uterus during and after birth, which helps the uterus to get back to its original size and lessens any bleeding a woman may have after giving birth.

The release of both prolactin and oxytocin may be responsible in part for a mother's intense maternal feeling and desire to bond with her baby.

### Test Yourself

Milk production is regulated by:

- A. Prolactin.
- B. Oxytocin.
- C. Progesterone.

The correct answer is: A. Prolactin.

As prolactin is released from the brain into the mother's bloodstream during breastfeeding, alveolar cells respond by producing milk. Oxytocin is the hormone responsible for let-down, or milk-ejection to occur, and progesterone is responsible for maintain pregnancy and suppressing lactation.

### Composition of Breast Milk

Depending on the age of the infant, different types of milk is produced, to most adequately meet the nutritional demands of the growing infant.

**Colostrum, or the first milk**, is a thick yellow substance, rich in immunoglobulins and has a laxative effect on the gut, aiding the passage of newborn meconium (Walker, 2013). Compared with mature milk, colostrums is smaller in volume but is higher in protein.

**Transitional Milk** follows the production of colostrums. It is more voluminous than colostrums, and lasts from seven to ten days.

**Mature Milk** is produced after lactogenesis stage II, and is comprised of foremilk and hindmilk:

- **Foremilk:** Is the thinner milk that is released at the beginning of the feed and satisfies the baby's thirst.
- **Hindmilk:** Is the richer, creamier milk that follows after the foremilk and is high in fat and calories.

It is thus important to ensure that the baby remains on one breast long enough to remove the foremilk and ingest the thick, creamy hindmilk that follows in order to achieve good weight gain (Walker, 2013).

### Presence of Colostrum

During the latter part of pregnancy, colostrum is produced by the breasts, which is a thick, yellow, rich precursor of mature milk, packed with nutrients and protective maternal antibodies. Although it is low in volume, it is high in concentrated nutrients and contains high levels of carbohydrates, proteins and Material protected by Copyright

environment-specific antibodies (La Leche League [LLL], 2014).

Colostrum also has a laxative effect on an infant, and assists with the passing of early stools, which aids in the excretion of excess bilirubin and helps prevent jaundice (LLL, 2014).

Colostrum is easily digested, is the ideal nutrition for the infants and helps to protect the infant against disease. The milk supply will increase and the color will change to a bluish-white color during the next few days after the baby's birth.

## **Initiating Breastfeeding**

Pediatricians and other healthcare professionals should recommend human milk for all infants in whom breastfeeding is not specifically contraindicated (AAP, 2014a).

Parents should be provided with complete, current information on the benefits and techniques of breastfeeding to ensure their feeding decision is a fully informed one (AAP, 2014a).

When direct breastfeeding is not possible, expressed human milk should be provided (AAP, 2010).

If a known contraindication to breastfeeding is identified, consider whether the contraindication is temporary, and if so, advise pumping to maintain milk production. Before advising against breastfeeding or recommending premature weaning, weigh the benefits of breastfeeding against the risks of not receiving human milk (AAP, 2010).

Avoid procedures that may interfere with breastfeeding or that may traumatize the infant, including unnecessary, excessive, and over-vigorous suctioning of the oral cavity, esophagus, and airways to avoid oropharyngeal mucosal injury that may lead to aversive feeding behavior (AAP, 2014a).

### **Encourage postpartum policies and practices that optimize breastfeeding initiation and maintenance.**

## **Test Yourself**

Pediatricians and other healthcare professionals should recommend human milk for all infants in whom breastfeeding is not specifically contraindicated.

- A. True
- B. False

The correct answer is: A. True.

The AAP (2014a) recommends that pediatricians and other healthcare professionals recommend human milk for all infants in whom breastfeeding is not specifically contraindicated.

## **Positions for Successful Breastfeeding**

### **Cross Cradle Hold**

This is the most commonly used position that is comfortable for most mothers. The mother holds the baby with the head on her forearm and the whole body facing the mother.

This is also an excellent position for a mother who has had a cesarean section or has very large breasts. It also works very well with premature infants and babies who are having problems latching on.

The infant is held along the opposite arm from the breast the baby will nurse from. Have the mother support baby's head with the palm of her hand at the base of the neck. This may look similar to the Cradle hold, but the opposite arm is supporting the baby. This is an effective position as the mother is using her hand, rather than her elbow, to guide the baby's head to the breast.

## **Positions for Successful Breastfeeding**

### **Clutch or Football Hold**

This is an easy and comfortable position for most women, and is especially good for mothers with large breasts or inverted nipples.

Position the baby at the mother's side, with the baby lying on the side, with the head at the level of the nipple. The infant's ear, shoulder and hip should be in a straight line. Support baby's head with the palm of the hand at the base of the baby's head. Never force a baby to latch by pushing on the back or top of the head. By supporting the neck rather than the head, the infant will be able to push away from the breast when satiated.

## **Positions for Successful Breastfeeding**

### **Side-Lying Position**

This allows mother to rest while the baby nurses, and can be a good position for mothers who had a Cesarean birth. The mother lies on her side with the baby on his side, facing her. She pulls the baby close and guides the baby's mouth to her nipple, by using a C-shaped hold to support under the breast.

Breastfeeding can be a wonderful experience for mother and baby. It is important for the mother not to become frustrated if there are problems with the mechanics of breastfeeding since what works for one mother and baby may not work for another.

It is also important to help the new mother to focus on finding comfortable positions that facilitate feeding. Establishing a routine that works for the new mother and baby is essential.

## **Guidelines for Successful Latching**

When latching the baby to the breast, the following guidelines should be taught to the mother:

- Always ensure that the mother is in a comfortable position with adequate support for her back, neck, forearms and elbows. If sitting, her legs should be elevated off the ground slightly, to release the abdominal muscles. The use of a feeding pillow is recommended to bring the baby up to the height of the breast.
- The mother should remain in this supported position and the baby positioned around her, and brought up to the breast, rather than her leaning forward and bringing the breast down to the baby.
- The infant's body should remain in alignment so that the neck is not turned to reach the breast.

**A breast feeding pillow can be used to support the weight of the infant and relieve shoulder and wrist tension in the mother. The pillow should be angled along the side that the infant will nurse on. The pillow supports the baby as he or she latches, and provides support for the infant's back as well as for the mother's elbow and wrist.**

## **Achieving a Wide Open Mouth**

- Encourage a wide open mouth before latching the baby, by expressing a drop of colostrum or

breast milk onto the nipple.

- Support the back of the baby's neck, rather than the head and aim to latch the baby with the nipple pointing to the roof of his mouth and his head tilted back slightly.
- The chin and lower jaw touch breast first, and the lower lip should cover part of the areola under the nipple, as far away from the base of the nipple as possible, so the tongue draws lots of breast into mouth.
- Once latched, the top lip will be well flanged against the breast, and the chin will be close against the breast.

### **Facilitating a Deep Latch**

Before latching, a wide gaping mouth is needed in order to achieve a deep latch that will initiate let-down and provide comfort to both mother and baby:

- When a comfortable position is achieved for the nursing dyad, move the baby toward the breast, touching his top lip against the nipple lightly before moving his mouth away slightly.
- Repeat until baby opens wide and has his tongue thrust forward.
- Alternatively, run the nipple along the baby's upper lip, from one corner to the other, lightly, until baby opens wide.

### **Supporting the Breast**

Encourage mothers to support the breast with the thumb on top and four fingers underneath (c-hold), keeping the fingers behind the areola. The mother may need to support the breast throughout the feeding, especially in the early days or if breasts are large. Always bring the baby up to the breast rather than bringing the breast down to the baby. This will ensure a deeper and more effective latch.

Brush or tickle the baby's lips with the nipple to encourage the baby's mouth to open wide by stimulating the rooting reflex. As the infant latches onto the breast, hug the baby in close with the whole body facing the mother. The baby will take a mouthful of all of the nipple and most of the areola. The baby should never be latched onto the nipple only.

Look for both of the baby's lips to be well flanged (turned out) against the breast, and not curled inward. If you can't tell if the lower lip is out, press gently down on the lower chin to release the lower lip. This is referred to as digital flanging, and causes the tongue to be cupped under the breast.

The baby's jaw will move back and forth and you may hear low-pitched swallowing noises as the baby nurses. The baby's nose and chin may touch the breast.

Breastfeeding should not hurt. If your patient complains of pain, the baby may not be latched correctly. Remove the baby from the breast and reposition. To break the suction on the breast, gently place a finger in the corner of the baby's mouth.

***To view an animated short video clip on breast anatomy and correct latch, please [click here](#). Or type this link into your browser: <http://blausen.com/?Topic=7516>***

### **Signs of a Good Latch**

There are several subtle signs to observe during a feed to confirm a good latch and milk transfer:

- The baby's lips are well flanged around the breast, so that the top and bottom lip are visible

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around the areola.

- Rapid flutter sucks (seen at the start of the feed to encourage the let-down of breast milk) are replaced by longer, deeper sucks and swallows after a few minutes at the breast. This change in pace reflects the let down of milk and there should be a 1:1 suck: swallow ratio (the baby swallows after each suck).
- There may be a drop or two of milk around the infant's mouth, although this may not always be visible.
- The baby's posture relaxes: The arms and legs relax, fingers and toes uncurl and movement is away from the midline of the body. This relaxed attitude is commonly referred to as a state of "milk drunk."
- The mother may experience a tingling sensation (let-down) as the milk-ejection reflex comes into play. Some women are more sensitive to the sensation than others.

### **Professional Assessment of Latch**

A formal evaluation of breastfeeding should be undertaken by trained healthcare professionals at least twice daily during the hospital stay, and fully documented in the record during each day in the hospital after birth (AAP, 2014a).

All breastfeeding newborn infants should be seen by a pediatrician or other knowledgeable and experienced healthcare professional at three to five days of age as recommended by the AAP.

What should this evaluation include?

An assessment of:

- Position
- Latch
- Milk transfer

### **Removing the Infant from the Breast**

Nipple damage can occur if an infant is detached incorrectly from the breast (Biancuzzio, 2006). Teach the mother to break the infant's suction first, prior to attempting to remove the infant from the breast.

By inserting a clean finger in the corner of the infant's mouth, the suction can be broken and the nipple then withdrawn from the infant's mouth, without any trauma.

### **Signs of Satiety**

Other signs that a baby is getting enough milk are:

- Steady weight gain, after the first few weeks of age. After an initial weight loss, typical weight gain is four to eight ounces per week, or between one to two pounds per month (Guzman, 2007).
- Pale yellow urine, not deep yellow or orange.
- Infant sleeps well, yet is alert and looks healthy when awake.

Remember that the more often and effectively a baby nurses, the more milk will be produced. Breasts

produce and supply milk directly in response to the baby's need or demand.

### **Promote an Early Start**

Encourage mothers to start nursing as early as possible after delivery (within an hour or two if possible) when the baby is awake and the sucking instinct is strong.

The alert, healthy newborn infant will most likely latch on to the breast most easily within the first hour after birth, during the quiet, alert state. 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 infant should be dried and initially assessed while the infant is with the mother, if at all possible. The mother is an optimal heat source for the infant. The AAP recommends delaying weighing, measuring, bathing, needle-sticks and eye prophylaxis until after the first feeding is completed.

Maternal support and education on breastfeeding and milk expression should be provided from the earliest possible time. Mother-infant skin-to-skin contact and direct breastfeeding should be encouraged as early as possible to get breastfeeding off to a good start.

### **Test Yourself**

The best time to put the infant to the breast is during the quiet, alert phase. This phase usually occurs:

- A. Within the first hour after birth.
- B. 2-3 hours after birth.
- C. After the first 6 hours of life.

The correct answer is: A. Within the first hour after birth.

Encourage mothers to start nursing as early as possible after delivery (within an hour or two if possible) when the baby is awake and the sucking instinct is strong. The alert, healthy newborn infant will most likely latch on to the breast most easily within the first hour after birth, during the quiet, alert state.

### **Nursing on Demand**

Since breast milk is so ideally suited to a newborn's digestive system, it is digested rapidly and newborns need to breastfeed at least every 2-3 hours and when they show signs of hunger.

Signs of readiness to feed include:

- Increase in movement: stretching of limbs, becoming more alert or active
- Mouthing (putting hands or fists to mouth and making sucking motion with mouth)
- Rooting (turning head in search of nipple)

Crying is a late sign of hunger, and should be avoided as much as possible.

Most newborn babies should breastfeed about 8 to 12 times in 24 hours.

The length of a feed may vary from infant to infant. Feeds should not be timed by the clock, but observed for the transfer of milk and the satiety of the baby. A breastfeeding session may last anywhere between 5-45 minutes depending on the feeding style of the infant. The mother can be

encouraged to keep the baby awake at the breast by talking to him, stroking his arms and legs, and if necessary, using a cool cloth intermittently, to re-awaken a sleepy infant.

When recording a feed, always note the time the feed began (not ended), and aim for a two to three hour interval until the start of the next feed.

### **Right versus Left Breast**

The mother should offer both breasts at each feeding for as long a period as the infant remains at the breast (Biancuzzo, 2003).

At each feed the first breast offered should be alternated so that both breasts receive equal stimulation and draining. In the early weeks after birth, sleepy infants should be aroused to feed if 4 hours have elapsed since the beginning of the last feeding.

After breastfeeding is well established, the frequency of feeding may decline to approximately 8 times per 24 hours, but the infant may increase the frequency again with growth spurts or when an increase in milk volume is desired. Growth spurts generally occur at 2, 3, and 6 weeks, then 3 and 6 months (Walker, 2013).

### **Avoid Artificial Nipples**

A newborn needs time to learn how to breastfeed. Artificial nipples require a different sucking action and thus, it is best to wait until the newborn develops a good sucking pattern before introducing a pacifier. It usually takes about two to three weeks to establish this, and six weeks for breastfeeding to be truly well established. Sucking at a bottle can also confuse some babies when they are first learning how to breastfeed.

The AAP recommends avoiding the use of a pacifier during the initiation of breastfeeding and proposes that pacifiers are used only after breastfeeding is well established. This recommendation does not contraindicate pacifier use for nonnutritive sucking and oral training of premature infants and other special care infants (AAP, 2014a).

If, after birth, a baby needs to be taken away from the mother for a length of time and has to be given formula, a syringe or cup can be used for feeding to avoid nipple confusion.

### **Nutrition and Rest**

Many women think they have to drink a lot of fluids to have a good milk supply. This is actually untrue. Breastfeeding women should drink to thirst, but it is not necessary to force a certain volume of fluid. Encourage women to drink non-caffeinated beverages when thirsty, which is the body's signal that it needs fluid. An easy way for her to remember to get enough fluid is to drink a glass of water or a nutritious beverage (milk or juice) every time she feeds the baby.

Many breastfeeding women wonder about how caffeine will affect their baby. Results from studies show that excessive caffeine intake (more than five 5 ounce cups of coffee per day) can cause the baby to be fussy and not able to sleep well. Moderate caffeine intake (fewer than five 5 ounce cups) usually doesn't cause a problem for most breastfeeding babies.

Women often try to improve their diets while they are pregnant. Continuing with an improved diet after the baby is born will help her stay healthy; however, even if she doesn't always eat well, the quality of milk won't be affected. The new mother's body adjusts to ensure the baby's milk supply is protected. Producing milk requires about 500 extra calories a day.

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New mothers need as much rest as possible. If a mother is a strict vegetarian, vitamin B12 supplementation may be considered.

### **How to Know if Baby is Getting Enough Milk?**

Most new mothers are concerned about their babies getting enough milk. When the mother and baby are in the hospital, the baby should stay with the mother (rooming-in) whenever possible.

Remind mothers that the baby will be sleepy and not to expect the baby to wake up when hungry. A newborn will need to be awakened about every two hours to feed (Walker, 2013).

### **Wet and Soiled Diapers**

You can tell if a baby is getting enough milk (or fluid) by keeping track of the number of wet and soiled diapers.

In the first few days, when milk is low in volume and high in nutrients, the baby may have only one or two wet diapers a day.

The number of stools a breastfeeding infant passes may vary greatly, and there is no clear evidence to identify the “normal” number of stools excreted by a breastfed infant (Biancuzzio, 2003). The breastfed infant has a strong gastrocolic reflex, and usually produces a stool with every feeding, but the number of stools can vary considerably. At a minimum, the breastfed infant should have at least three stools per day after the fourth day of life, and continuing thereafter during the first month of life (Biancuzzio, M. 2003).

Encourage new mothers to chart the daily number of soiled diapers and consult their pediatrician if they are concerned about the baby's weight gain.

### **Wet and Soiled Diapers**

#### **Minimum number of diapers for most babies**

<b>Baby's Age</b>	<b>Wet Diapers</b>	<b>Dirty Diaper's Color and Texture</b>
Day 1 (birth)	1	Thick, tarry and dark green/black
Day 2	2	Thick, tarry and dark green/black
Day 3	3	Greenish yellow
Day 4	5-6	Greenish yellow
Day 5	5-6	Seedy, watery mustard color



Day 6	5-6	Seedy, watery mustard color
Day 7	5-6	Seedy, watery mustard color

### **Wet and Soiled Diapers**

When monitoring stool output in the breastfed infant, it is important to note and record the number, color and consistency of the stool, as the passage of meconium is indicative of gastrointestinal activity in the newborn (Biancuzzio, M. 2003).

After discharge from hospital, the baby still needs to feed about every two to three hours and will need frequent diaper changes. The mother should be encouraged to wake the baby Q3 hourly during the day to feed because some babies are sleepy for up to one month after delivery. If the mother is having a hard time waking her baby, instruct her to stimulate the baby by loosening the baby's blanket, clothing or tickle the baby's feet.

### **Weight Loss**

It is expected that all newborns will lose some weight in the first five to seven days of life. A 5% weight loss is considered normal for a formula fed newborn, whereas a 7%-10% loss is considered normal for the breastfed baby (La Leche League, 2014).

By day seven, weight loss should have stabilized and weight gain should begin. By two weeks, the infant should have completely regained the birth weight.

Thereafter, typical weight gain is four to eight ounces per week, or between one to two pounds per month (Guzman, 2007).

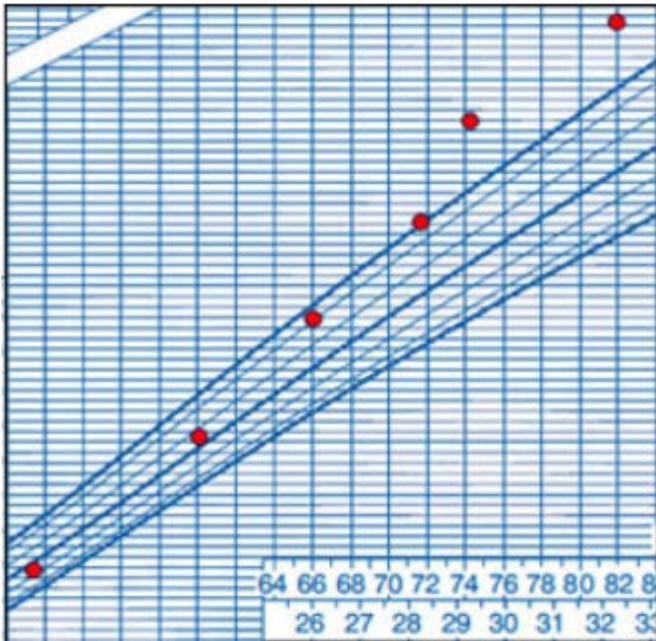
**A weight loss up to 7- 10% of birth weight is considered acceptable within the first week of life.**

### **Standard Growth Charts**

Breastfed infants do not gain weight at the same rate as bottle fed infants, and standard growth charts are based on weight gain for formula fed babies. These growth charts were developed in the 1950's when bottle feeding was the accepted norm (Biancuzzio, M. 2003).

More accurate growth charts for breastfed babies are now available online from the Centers for Disease Control and Prevention (CDC) website, and can be downloaded at:

<http://www.cdc.gov/growthcharts/>.



Growth Charts (CDC, 2014).

### Auto-Regulation of Lactation

Breast milk production is based on the concept of supply and demand: the more milk demanded, the greater milk production will be. Mothers can feel confident that the baby is getting enough to eat because the amount of milk produced is regulated by the baby's needs. If the baby needs to eat more or more often, breasts will increase the amount of milk they produce.

### Exclusive Breastfeeding

Nursing babies do not need any water, sugar water or formula. The American Academy of Pediatrics (AAP) Section on Breastfeeding, American College of Obstetricians and Gynecologists, American Academy of Family Physicians, Academy of Breastfeeding Medicine, World Health Organization, United Nations Children's Fund, and many other health organizations recommend exclusive breastfeeding for the first six months of life (AAP, 2014a).

Thus the AAP recommends against routine supplementation of non-dehydrated breastfed infants with water or dextrose water. Supplementation with water or dextrose water will not prevent hyperbilirubinemia or decrease bilirubin levels.

Exclusive breastfeeding is defined as an infant's consumption of human milk with no supplementation of any type (no water, no juice, no nonhuman milk, and no foods) except for vitamins, minerals, and medications (AAP, 2014a).

Exclusive breastfeeding has been shown to provide improved protection against many diseases and to increase the likelihood of continued breastfeeding for at least the first year of life. During the first six months of age, even in hot climates, water and juice are unnecessary for breastfed infants and may introduce contaminants or allergens (AAP, 2014a).

### Test Yourself

Hyperbilirubinemia can be prevented in non-dehydrated infants by:

- A. Supplementing breastfeeding babies with glucose water.
- B. Allowing the infant unlimited access to breastfeeding.
- C. Limiting the amount of time an infant suckles at the breast.

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The correct answer is: B. Allowing the infant unlimited access to breastfeeding.

Unlimited access to the breast will help promote the ingestion of colostrum, which has a laxative effect on an infant, which aids in the excretion of excess bilirubin and helps prevent jaundice (LLL, 2014). The AAP recommends against routine supplementation of non-dehydrated breastfed infants with water or dextrose water. Supplementation with water or dextrose water will not prevent hyperbilirubinemia or decrease bilirubin levels.

### **Medical Indications for Supplementation**

According to the Academy of Breastfeeding Medicine Clinical Protocol #3, there are common clinical situations where evaluation and breastfeeding management may be necessary, but supplementation is not indicated, including:

1. The sleepy infant with fewer than 8 to 12 feedings in the first 24–48 hours with less than 7% weight loss and no signs of illness.
2. The healthy, term, appropriate for gestational age (AGA) infant with bilirubin levels less than 18 mg/dL after 72 hours of age when the baby is feeding well and stooling adequately and weight loss is less than 7% (AAP, 2004 in ABM, 2009).
3. The infant who is fussy at night or constantly feeding for several hours.
4. The tired or sleeping mother.

#### **Note!**

**For both points 3 and 4, breastfeeding management that optimizes infant feeding at the breast may make for a more satisfied infant and allow the mother to get more rest. Before any supplementary feedings are begun, it is important that a formal evaluation of each mother–baby dyad, including a direct observation of breastfeeding, is completed (ABM, 2009).**

### **Test Yourself**

Which of the following clinical scenarios would warrant formula supplementation to a breastfeeding infant:

- A. A sleepy infant with a 5% weight loss in the first three days.
- B. A fussy two day old infant who is constantly demanding to nurse.
- C. A healthy, four day old AGA infant with a bilirubin level of 25 mg/dL and a weight loss of 8%.

The correct answer is: C. A healthy, four day old AGA infant with a bilirubin level of 25 mg/dL and a weight loss of 8%.

Formula supplementation is warranted in a healthy, term, appropriate for gestational age (AGA) infant with bilirubin levels higher than 18 mg/dL after 72 hours of age when there is a weight loss of more than 7% (AAP, 2004 in ABM, 2009).

### **ABM Recommendations**

The Academy of Breastfeeding Medicine Protocol Committee has established hospital guidelines for the use of supplementary feedings in the healthy term breastfed neonate. These guidelines recommend the following:

1. Healthy infants should be put skin-to-skin with the mother immediately after birth to facilitate

breastfeeding, because the delay in time between birth and initiation of the first breastfeed is a strong predictor of formula use (Smale, 1998 in ABM, 2009).

2. Healthy newborns do not need supplemental feedings for poor feeding for the first 24–48 hours, but babies who are too sick to breastfeed or whose mothers are too sick to allow breastfeeding are likely to require supplemental feedings.
3. Hospitals should strongly consider instituting policy regarding supplemental feedings to require a physician's order when supplements are medically indicated and informed consent of the mother when supplements are not medically indicated. It is the responsibility of the health professional to provide information, document parental decisions, and support the mother after she has made the decision (Henrikson, 1990 in ABM, 2009). When the decision is not medically indicated, efforts to educate the mother ought to be documented by the nursing and/or medical staff.
4. All supplemental feedings should be documented, including the content, volume, method, and medical indication or reason.
5. If mother–baby separation is unavoidable, established milk supply is poor or questionable, or milk transfer is inadequate, the mother needs instruction and encouragement to pump or manually express her milk to stimulate production and provide expressed breast milk as necessary for the infant (Powers & Slusser, 1997 in ABM, 2009).
8. When supplementary feeding is necessary, the primary goals are to feed the baby and also to optimize the maternal milk supply while determining the cause of poor feeding or inadequate milk transfer.
9. Whenever possible, it is ideal to have the mother and infant room-in 24 hours per day to enhance opportunities for breastfeeding and hence lactogenesis (Powers & Slusser, 1997 in ABM, 2009).
10. Optimally, mothers need to express milk each time the baby receives a supplemental feeding, or about every 2–3 hours. Mothers should be encouraged to start expressing on the first day (within the first 24 hours) or as soon as possible. Maternal breast engorgement should be avoided as it will further compromise the milk supply and may lead to other complications (Powers & Slusser, 1997 in ABM, 2009).
11. All infants must be formally evaluated for position, latch, and milk transfer prior to the provision of supplemental feedings. Most babies who remain with their mothers and breastfeed adequately lose less than 7% of their birth weight (Neifert, 2001 in ABM, 2009).
12. The infant's physician should be notified if an infant exhibits signs of illness in addition to poor feeding, or the infant's weight loss is greater than 7%.

### **Maternal Nutrition**

Even if a mother doesn't generally eat a healthy diet, she will produce nutritious breast milk for her baby. But, chronically undernourished women who have had diets very low in vitamins and minerals, and low stores in their bodies may produce milk that is lower than normal in some vitamins, especially vitamins A, D, B6, or B12. These breastfeeding mothers can help the vitamin levels in their milk return to normal by improving their diets or by taking vitamin supplements. It is recommended that nursing mothers take in about 2700 calories every day (about 500 calories more than a non-pregnant, non-nursing woman).

### **Alcohol**

Alcohol passes to the baby through breast milk, and has been found to peak in concentration about 30 to 60 minutes after consumption, or 60 to 90 minutes if it is taken with food.

The effects of alcohol on the breastfeeding baby are directly related to the amount of alcohol a mother consumes. Moderate to heavy drinking can interfere with the let-down reflex and the milk-ejection reflex.

Excessive alcohol can also can harm the baby's motor development and cause slow weight gain. For this reason, and for the general health of the mother, if alcohol is used, intake should be limited.

Light drinking by a breastfeeding mother has not been found to be harmful to a breastfeeding baby (La Leche League, 20014b).

## **Medications**

During pregnancy drugs cross the maternal–placental barrier more easily than during breastfeeding, and many drugs that are contraindicated during pregnancy are safe to use during lactation.

The healthcare provider prescribing medication should be aware that the patient is breastfeeding, as some drugs are more suitable for use during breastfeeding than others.

In very select circumstances, a drug may be prescribed that is incompatible with breastfeeding. In such instances, the mother should be encouraged to maintain her breast milk supply by temporarily pumping and discarding the breast milk while taking the medication. During this time, she can use previously stored breast milk or formula to feed the baby, but she will maintain her breast milk supply at a level that will meet the baby's needs when treatment is over.

Dr. Tom Hale, PhD, is a professor of pediatrics and an internationally renowned expert on pharmacology and lactation. He has performed extensive research on the effects of medication in mothers' milk. He has written numerous resources and maintains an online website that features a professional and mother's forum for accessing information about medications, side effects and mother's milk. [Click here](http://www.ibreastfeeding.com/thomas-w-hale-phd) to access his site or type this address into your browser: <http://www.ibreastfeeding.com/thomas-w-hale-phd>.

The American Academy of Pediatrics also offers information about prescription and over-the-counter medications commonly used in breastfeeding mothers, posted on their web site at: [www.aap.org](http://www.aap.org).

## **Breastfeeding Challenges**

Many women breastfeed without any problems, but for some women, it is natural for minor problems to arise at first, especially if it is their first time breastfeeding. The good news is that most problems can be overcome with a little help and support. Some of the more serious problems such as infection may require intervention from the healthcare provider.

### **More info**

**For an in-depth review of common breastfeeding challenges, please review RN.com's course: A Nurse's Guide to Managing Common Breastfeeding Challenges.**

## **Fullness versus Engorgement**

Milk production is based upon supply and demand. For effective milk production to occur, milk must be continually and effectively removed (Walker, 2013). The more milk that is removed from the breast, the more will be produced.

Any factor that reduces the amount of time the baby is at the breast or postpones regular nursing can

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cause overly full or engorged breasts.

A breastfeeding mother usually feels a normal fullness (slight heaviness that is not painful) in her breasts, especially in the first couple of days when her milk comes in.

In most circumstances, latching the baby to the breast effectively will relieve the pressure. Using a warm compress and gentle hand massage prior to nursing, usually relieves the fullness. Ice-packs may be applied after breastfeeding to decrease the congestion in the breasts.

However, if breast swelling, tenderness, redness, throbbing and flattening of the nipple occur and are unrelieved by breastfeeding, additional action may be needed to effectively manage engorgement.

Engorgement is the result of the milk building up, and usually happens during the third to fifth day after birth. This slows circulation and when blood and lymph move through the breasts, fluid from the blood vessels can seep into the breast tissues.

### **Plan of Care**

1. Minimize engorgement by making sure the baby is latched on and positioned correctly at the breast. Encourage the mother to nurse frequently after birth. Allow the baby to nurse as long as the baby likes, as long as the infant is latched on well and sucking effectively. In the early days when milk is coming in, awaken a sleepy baby every two to three hours for breastfeeding. Breastfeeding often on the affected side helps to remove the milk, keep it moving freely, and prevent the breast from becoming overly full.
2. Avoid supplementary bottles and overusing pacifiers.
3. Encourage hand expression or pumping a little milk to first soften the areola before breastfeeding, or massage the breast and apply heat.
4. Cold compresses in between feedings can help ease pain.
5. Encourage the new mother to get enough rest and proper nutrition and fluids.
6. Your patient should try to wear a well-fitting, supportive bra that is not too tight.

### **Sore Nipples**

Poor latch-on and positioning are the major causes of sore nipples because the baby is not getting enough of the areola into his or her mouth, and is sucking mostly on the nipple.

If the baby is latched on correctly and is able to suck effectively, the baby should be able to nurse as long as needed without causing any pain.

### **Plan of Care**

There are several supportive measures the healthcare provider can offer to minimize the risk of sore nipples in the early postpartum period:

- Check the positioning of the baby's body and the way the baby latches on and sucks. Your patient will find that it feels better right away once the baby is positioned correctly.
- Don't delay feedings, and educate the mother on recognizing the subtle, early signs of readiness to feed, so that she can respond appropriately and in a timely manner. Encourage the mother to hand express a drop or two of colostrums onto the areola, prior to bringing the baby to the breast. This will encourage the infant to open his mouth wider and achieve a deeper latch.

- If your patient's nipples are tender, encourage her to alternate the side she begins each feed on, as well as alternating the position used at the breast. This alleviates continued pressure on any one area of the breast.
- After nursing, encourage your patient to express a few drops of milk and gently rub it on her nipples. Human milk has natural healing properties and emollients to soothe them.
- Wearing a nipple shield during nursing will not relieve sore nipples. They actually can prolong soreness by making it hard for the baby to learn to nurse without the shield (La Leche League, 2014c).

## Plan of Care

Additional Care:

- Hydrogel and glycerin gel pads are alternative treatments for sore and traumatized nipples. They appear to reduce nipple pain while mothers heal, but research results are mixed (Mohrbacher, 2002).
- Encourage your patient to avoid wearing bras with underwire or clothes that are too tight. A well-fitting nursing bra will offer the best support. Advise the mother to change nursing pads often to avoid trapping in moisture.
- Avoid using soap or ointments that contain astringents or other chemicals on the nipples. Make sure to avoid products that must be removed before nursing. Washing with clean water is all that is necessary to keep the nipples and breasts clean.
- Making sure new mothers get enough rest, eat healthy foods, and drink enough fluids can also help during the postpartum period.

## Jaundice

Jaundice is a condition common in many newborns and usually appears around the second or third day of life.

Jaundice usually begins at the head and progresses downward. A jaundiced baby's skin will usually appear yellow first on the face, followed by the chest and stomach, and finally, the legs.

The yellow discoloration is due to the accumulation of bilirubin, a breakdown product of red blood cells.

## Types of Jaundice

The most common types of jaundice are:

### ***Blood Group Incompatibility (Rh or ABO problems):***

If the maternal and infant blood types differ, the mother might produce antibodies against the infant's red blood cells. This creates a sudden buildup of bilirubin in the baby's blood. Incompatibility jaundice can begin as early as the first day of life. Rh problems once caused the most severe form of jaundice, but now can be prevented with the administration of Rh immune globulin to the mother within 72 hours after delivery, which prevents the formation of antibodies that might endanger any subsequent babies.

### ***Breast Milk Jaundice:***

In only 1% to 2% of breastfed babies, jaundice may be caused by substances produced in their

mother's breast milk that can cause the bilirubin level to rise. These can prevent the excretion of bilirubin through the intestines. It starts after the first 3 to 5 days and slowly improves over 3 to 12 weeks (AAP, 2014a).

### ***Jaundice of Prematurity:***

Occurs frequently in premature babies, since the liver is immature and unable to excrete bilirubin effectively. Jaundice in premature babies needs to be treated at a lower bilirubin level than in full term babies in order to avoid complications.

### ***Physiological (Normal) Jaundice:***

Occurs in most newborns, and is due to the immaturity of the infant's liver, which leads to a slow processing of bilirubin. It generally appears at 2 to 4 days of age and disappears by 1 to 2 weeks of age.

### **Management of Jaundice**

The American Academy of Pediatrics discourages stopping breastfeeding in jaundiced babies and suggests continuing frequent breastfeeding, even during phototherapy.

Daily monitoring of serum bilirubin levels are performed. It is important for the mother to discuss with the physician all possible treatment options and let the physician know that she does not want to interrupt nursing (if this is at all possible).

### **Donor Milk**

Ideally, breast milk comes from a baby's own mother. But when this is not possible, breast milk from donors (other women's breast milk) can be obtained. This milk provides the same precious nutrition and disease fighting properties as the mother's own breast milk. If a baby has special needs, such as intolerance to formula, severe allergies, is failing to thrive on formula, is premature or has other health problems, donated breast milk from a milk bank may be a great solution.

Breast milk from donors is stored in human milk banks. At the time of this course development, there are only approximately 14 human milk banks in the United States. While the number of infants and children who depend upon donor milk for health or survival is small, their numbers are greater than the supply that is available.

Human milk banks screen the donors, and collect, screen, process, and dispense donor human milk. Because babies who use donor milk are not related to the donors, every possible step is taken to ensure the milk is safe. And the milk is only dispensed by a prescription from the pediatrician. The prescription must show how many ounces of processed milk are needed per day, and for how many weeks or months. The milk bank also needs the mother's name, the baby's name, and address and phone number. Then, the new mother and pediatrician can contact a milk bank to order the milk. If the milk bank is located close to the mother, she can pick up the milk there. If she lives out of the area, the milk bank can ship the frozen milk in coolers every few days.

The cost of donor milk is about \$3.75 per ounce (Human Milk Banking Association of North America, 2014). Sometimes there is another fee for shipping. Most health insurance companies cover the cost of donor milk if it is medically necessary. To find out if insurance will cover the cost of the milk, call the insurance company. If an insurance company does not cover the cost of the milk, talk with the milk bank to find out how payment can be made later on, or how to get help with the payments. A milk bank will never deny donor milk to a baby in need.



The Human Milk Banking Association of North America operates ten milk banks across the United States. For more information about milk banks and their locations, please visit:

<https://www.hmbana.org/>.

## **Reasons for Milk Banks**

There are several reasons why a mother may not be able to breastfeed her own baby:

- In a premature delivery, a mother's milk supply may not become established enough to provide milk for her baby. Sometimes the stress of caring for a very ill infant prevents the milk supply from developing.
- A mother who delivers twins or triplets might not have enough milk supply to nourish all of the babies.
- Some medicines taken by the mother for a health problem, such as chemotherapy for cancer, can harm a baby.
- A mother might have an infection that could be spread to her baby through breastfeeding, such as HIV or hepatitis.
- A mother might have a health problem that prevents her from breastfeeding or makes it impossible for her to produce milk.

## **Breastfeeding Support and Education**

### **Maternal Education and Support**

As the Surgeon General's report stated in 1984, a major barrier to breastfeeding initiation and continuation is the lack of good consumer education (Biancuzzo, M. 2003).

In our society, breastfeeding myths and misconceptions abound, making it difficult for new parents to obtain unbiased factual information. Some healthcare providers have skewed perceptions and emotions, based on prior personal experiences, which may influence their support for breastfeeding.

One of the most important preparations a pregnant woman can make is the acquisition of factual information on lactation to enable her to make an informed decision that is most appropriate for her and her baby.

Healthcare providers can obtain information from a number of sources, including:

[The Academy of Breastfeeding Medicine](#)

[The AAP Policy Statement on Breastfeeding](#)

[The Association of Women's Health, Obstetric and Neonatal Nurses](#)

### **Family Support**

Fathers and other special support persons can be involved in the breastfeeding experience. Breastfeeding is more than a way to feed a baby, it becomes a lifestyle.

While no one but the baby's mother can provide breast milk, it is helpful for the mother and the baby if the father or support person encourages this healthy relationship. Fathers or support persons play a major role in the breastfeeding experience by being sensitive and supportive. They can encourage

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breastfeeding when the mother is feeling tired or discouraged. They can affirm their love, approval, and appreciation for the mother's work and time that she puts into breastfeeding. They also can be good listeners and provide understanding to the mother's and baby's needs to accommodate breastfeeding in the home or when traveling.

All of this support helps the mother feel better about herself and proud that she is giving her baby the best. Many people also feel warmth, love, and relaxation just from sitting next to mother and baby during breastfeeding.

Fathers and support persons also can help when the mother begins to wean the baby from breastfeeding by giving emotional nourishment to the child through playing, cuddling, and giving a bottle/cup.

## **Resources**

If a mother needs more information on breastfeeding or extra help with a breastfeeding challenge, you should provide encouragement. There are many people and organizations that want to help new mothers have a successful and happy breastfeeding experience.

The following organizations are the most recognized national organizations that provide valuable information on or support for breastfeeding. While their services may vary, they all share the purpose of promoting breastfeeding to mothers, fathers, and families.

### **1. National Women's Health Information Center (NWHIC)**

The National Women's Health Information Center (NWHIC) has partnered with La Leche League International to offer a breastfeeding hotline for breastfeeding mothers. Trained Information Specialists are available to help with common breastfeeding issues such as nursing positions, questions about pumping and storage, and provide the support moms and dads need to make breastfeeding a success. The Helpline can also provide tips for working moms who would like to continue breastfeeding, and offer suggestions for financial support. The hotline number is: **(919) 966-4148** or toll-free **(866) 428-6508**.

### **2. La Leche League (LLL)**

The mission of LLL is to help mothers worldwide to breastfeed through mother-to-mother support, encouragement, information, and education, and to promote a better understanding of breastfeeding as an important element in the healthy development of the baby and mother. La Leche League forums for mothers can be accessed at: <http://forums.llli.org/>.

Website: <http://www.llli.org/>

Contact Info: 1+800-LALECHE (525-3243)

### **3. The International Lactation Consultant Association (ILCA)**

ILCA is the professional association for International Board Certified Lactation Consultants (IBCLCs), and maintains a current registry of licensed, practicing Lactation Consultants available for one-on-consultations. Visit the [U.S. Lactation Consultant Association Directory](#) to search for a local lactation consultant in a specific area or type this address into your browser:  
<http://www.ilca.org/i4a/pages/index.cfm?pageid=3337>

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## **Conclusion**

Although economic, cultural, and political pressures often confound decisions about infant feeding, breastfeeding ensures the best possible health for an infant, as well the best developmental and psychosocial outcomes (AAP, 2014a).

Enthusiastic support and involvement of healthcare professionals in the promotion and practice of breastfeeding is essential to the achievement of optimal infant and child health, growth, and development.

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