

Breastfeeding

RESOURCE GUIDE



TriHealth Lactation
Consultants
513-862-7867



MATERNITY
SERVICES



TABLE OF CONTENTS

1. Breastfeeding Your Baby1
 Why Breastfeed?1
 Making Mother’s Milk1
 How Breastfeeding Works1
 How Breasts Make Milk1
 How to Make Enough Milk2
 The Letdown Reflex2
 How a Baby Gets Milk Out of the Breasts2

2. The Basics of Breastfeeding3
 First Breastfeeding3
 Baby-Led Latch/Attachment to Breast3
 Watching for Feeding Cues3
 Settling Down to Breastfeed3
 Getting into Position3
 Breastfeeding Positions4
 Baby Latches to the Breast5
 Mother’s Comfort6
 Cramping6
 Baby’s Latch and Mother’s Nipples6
 Time to Eat6
 How Often6
 How Long7
 Putting it Together7
 Is Baby Getting Enough?7
 Cluster Feeding and Growth Spurts7
 Developing a Support Team8

3. Common Questions and Concerns9
 Breastfeeding is a Learned Art9
 Baby Issues9
 The Sleepy Baby9
 Other Reasons for a Sleepy Baby10
 When a Nipple Shield is Suggested10
 Supplementing a Breastfed Newborn10
 The Fussy Baby10
 Mother Issues11
 Sore Nipples11
 Flat or Inverted Nipples11
 Breast Engorgement11
 Plugged Milk Ducts and Mastitis12
 Breast Surgery or Injury13

4. Expressing and Storing Mother’s Milk14
 Reasons for Expressing Milk14
 Expressing Milk by Hand14
 Expressing Milk with a Breast Pump14
 Types of Breast Pumps14
 Personal Pumps14
 Rental Pumps15
 Pumping for a Newborn Baby15
 Returning to Work15
 Storage of Breast Milk15
 Weaning from a Breast Pump16

TABLE OF CONTENTS

5. Breastfeeding and Mother’s Milk for the Premature or Sick Newborn17
 Mother’s Milk in NICU/SCN17
 Begin Pumping Soon After Baby’s Birth17
 How to Pump18
 Where to Pump at the Hospital18
 Special Program: The Gift of Donor Milk18
 Preparing for Discharge from the Hospital18
 Will the Breast Pump I Have Work as Well as the Hospital Pump?18
 Does Health Care Insurance, Medicaid or WIC Cover Pump Rental Fees?19
 Before Discharge19
 Pumping at Home19
 Where to Pump19
 When to Pump19
 How to Establish, Maintain or Increase Good Milk Production19
 Take Care of Yourself20
 If Milk Production is Low21
 Help — I Want to Stop Pumping!21
 Baby Steps to Breastfeeding22
 Learning Baby’s Cues22
 Levels in Breastfeeding Progress23
 Preparing for Each Level of Breastfeeding23

6. Frequently Asked Questions25

7. Individualized Care Plans28
 1-Breastfeeding the Healthy, Full-Term Newborn29
 2-The Full-Term Baby Who is Not Yet Breastfeeding Well30
 3-Breastfeeding the Late Preterm Baby (34 to 37 Weeks)31
 4-Breastfeeding the *Tongue-Tied* Infant32
 5-Breastfeeding with a Nipple Shield33
 6-*Baby’s Intake and Output Record of Feedings and Diaper Changes*34
 7-Manual (Hand) Expression of Milk35
 8-Establishing Milk Production with a Hospital-Grade Electric Breast Pump36
 9-Storing Breast Milk for a Baby in the NICU/SCN37
 10-Breast Pump Issues38
 11-Supporting Breastfeeding if a Newborn is Supplemented by Bottle39
 12-Weaning from a Breast Pump40
 13-*Pumping Record*41
 14-Breast Engorgement42
 15-Sore or Damaged Nipples43
 16-Flat or Inverted Nipples44
 17-Plugged Milk Ducts and Mastitis45
 18-Overproduction and Overactive Letdown46

8. Resources47
 Breastfeeding Support: Groups and Phone Information47
 Medela® Breast Pump Rental and Sales in Greater Cincinnati47
 Medela® Maternity/Nursing Bra Dealers48
 Selected Reading48
 Internet Breastfeeding Help50

Baby’s Intake and Output Record of Feedings and Diaper Changes51
Pumping Record52

Congratulations

Congratulations on the decision to breastfeed your baby or provide your milk by pumping your breasts. Your milk is best for your baby. And for the baby who is ready, willing and able, breastfeeding is the best delivery system for getting your milk into your baby.

This booklet was written to help you understand the basics of breastfeeding, such as how to:

- Know that you are making enough milk and whether your baby is getting enough of it
- Position your baby for feeding
- Deal with common breastfeeding concerns
- Remove (pump) and store your milk for later use
- Find sources of breastfeeding information, support and help.

The staff nurses at TriHealth have had training to help mothers start breastfeeding, and international board certified lactation consultants (IBCLC) or breastfeeding support technicians (BST) also see breastfeeding mothers during their stay in the hospital. Once you and your baby are home, the IBCLCs and BSTs are still available to answer breastfeeding questions or concerns. Private consultation also is available. To contact TriHealth Breastfeeding and Lactation Support Services, call our *Warmline* at 513-862-PUMP (7867).



Breastfeeding Your Baby

Why Breastfeed?

Only a mother's own milk contains many different kinds of disease-fighting factors to protect a baby from all kinds of illnesses. Breastfed babies are much less likely to suffer from infections that cause diarrhea, earache, colds and stuffy noses, and other symptoms. Sudden Infant Death Syndrome (SIDS) also occurs less often for breastfed babies. Because a mother's own milk is created for her baby, it contains just the right balance of nutrients in the most digestible form. This means a baby's body and brain can grow and develop just as nature intended. Breastfed babies also are less likely to develop diabetes or be extremely overweight or obese during childhood.

Breastfeeding also is good for a mother's health. The uterus tightens each time a woman breastfeeds, which decreases bleeding after birth. Making milk uses calories, so many mothers find they lose "baby weight" more quickly. Plus, when a baby is exclusively breastfed, which means a baby gets food only from mother's breast until ready to try some other foods, the mother's menstrual cycle (period) is unlikely to begin again until after her baby is six or more months. Women who have breastfed their babies are less likely to develop breast cancer, plus several studies have found lower rates of several other cancers for these women, including ovarian and uterine cancers. Having breastfed one's children also is related to better cardiovascular health for a woman during mid-life – long after breastfeeding ends.

Breastfeeding requires a mother to spend lots of time each day with her baby, and each baby has his own style when breastfeeding. This gives a mother the chance to get to know and appreciate her baby's uniqueness, which helps her form a close bond with her baby without even realizing it is happening!

Breastfeeding is the most environmentally "friendly" and least expensive way to feed a baby. In addition to a mother's "built in" feeding equipment, which doesn't require preparation or cleaning, the breastfed baby generally has fewer "sick" baby visits.

For these and many other reasons, the American Academy of Pediatrics (AAP) and the World Health Organization (WHO) recommend exclusive breastfeeding for a baby's first six months. The AAP then recommends continued breastfeeding *at least* until a baby's first birthday as solid foods are gradually added. Because of a toddler's immature immune system, the WHO recommends continued breastfeeding *at least* until a baby's second birthday. A mother's milk continues to provide

important nutrients, illness protection and a good way to comfort a toddler, so breastfeeding should continue as long as a mother and her baby continue to enjoy its benefits.

Making Mother's Milk

During the second half of pregnancy and the first few days after baby's birth, the milk a woman produces is called colostrum. Colostrum is all that most full-term, healthy babies need for their first several days. Compared to the milk that "comes in" later in the first week, colostrum is:

- Super high in disease-fighting substances
- Thicker
- Produced in smaller amounts.

Small amounts of this thicker milk are exactly what a baby needs during those first few days. Not only does the thickness help "paint" a baby's mouth and intestinal tract with the disease-fighting substances, it also gives a newborn's tiny tummy a few days to slowly stretch. Smaller amounts of this thicker milk give a baby some time to figure out how to coordinate breathing with sucking and swallowing. Plus, colostrum has a laxative effect, which helps a baby pass the dark, sticky meconium stool more quickly so jaundice is less likely to be a problem.

With the passing of the placenta within minutes of a baby's birth, the pregnancy hormones level off, so hormones for lactation, or milk production, are able to work. The main *milk-making* hormone is *prolactin*. Its job is to tell the breasts to get serious about making milk. Then it helps the breasts continue to make milk. *Mature milk* starts to replace colostrum by the second to fifth day after delivery. Because it may take about two weeks to establish good milk production, this *transitional* milk may still have a yellowish color. Mature milk looks thinner and is whiter in color, although it may sometimes seem to be tinged with another color. Sometimes a mother's milk may have a bluish or greenish tint.

How Breastfeeding Works

How Breasts Make Milk

Breasts come in all shapes and sizes. Whether large or small, most breasts can do a good job of making enough milk. And most can make plenty of milk for one, two and even three or four babies!

A change in the breasts or breast tenderness is often the first physical sign of pregnancy. As pregnancy continues, the breasts

1. BREASTFEEDING YOUR BABY

grow larger as they prepare for breastfeeding. The breasts begin to make milk by the 20th week, about halfway through pregnancy. Some women find a bit of milk leaks from the breasts during the second half of pregnancy.

Within each breast, a collection of milk-making cells form tiny balloon-shaped structures called *alveoli*. There are thousands of alveoli in each breast. The milk-making cells of each alveolus pick out certain ingredients from the blood moving through a mother's breasts, which are then transformed into mother's milk. The new milk passes into the center of the alveolus, the area similar to the inside of a balloon, which is called the *lumen*. Milk stored in the lumen empties into small milk ducts, which empty into larger ducts that lead to even larger mammary ducts. Eventually, the milk flows into one of several large ducts that open at the nipple tip.

How to Make Enough Milk

Frequent breastfeeding, or breast pumping, is very important for ongoing milk production. Each time a baby breastfeeds, or a mother pumps her breasts, the hormone prolactin floods the alveoli. Because prolactin reminds the alveoli to produce more milk, frequent breastfeeding is needed to release more prolactin. However, frequent breastfeeding has another very important job in making enough milk, since removing milk often and removing it well may be the most important parts of making as much milk as a baby needs. (Expressing, or pumping, milk from the breasts is another way to remove milk.)

When a baby needs more milk, the best way to make more is to breastfeed (or pump) more often. Milk removal from breastfeeding or pumping creates a demand for mother's milk, which tells the breasts how much milk to produce. When milk builds up in the lumen, a chemical is sent into the milk-making cells telling them to slow milk production.

It is not unusual for one breast to produce more milk than the other. Such differences in milk production are common and rarely cause a problem for a baby or mother. When a mother lets her baby breastfeed whenever the baby acts hungry, and she also alternates which breast is used from one feeding to the next, she is most likely to make the amount of milk a baby needs for good growth and development.

For mothers who depend on breast pumping to remove milk, see section 4 for more information. And if your baby is in the Neonatal Intensive Care Unit (NICU) or Special Care Nursery (SCN), also see section 5, beginning on page 17.

The Letdown Reflex

In addition to the hormone prolactin, the hormone *oxytocin* is released during each breastfeeding or breast pumping. Oxytocin acts on the muscle cells that surround alveoli, causing them to shorten and squeeze the alveoli. This pushes the milk in the lumen down into the milk ducts. This process is called the *milk-ejection*, or *letdown*, reflex. Milk flows faster and more easily during a letdown, and several letdowns occur during each breastfeeding.

Because oxytocin is the same hormone that caused labor contractions, some women feel menstrual-like cramping or backache while breastfeeding for a few days after giving birth, especially after a second, third or later baby. Some women also feel a brief tingling or pins-and-needles sensation, a warm flush, etc. with the first letdown reflex once milk production is well established. Feeling thirsty or drowsy after a letdown also is fairly common. However, many women never feel the letdown reflex, and the only sign of each letdown is when a baby suddenly begins to suck often or gulp more during a breastfeeding.

How a Baby Gets Milk Out of the Breasts

The end, or tip, of the nipple has about 5 to 15 openings where the milk comes out. These openings are the end points of the larger milk ducts. When a baby latches onto the breast, he brings the nipple and the *areola*, the darker area of the breast just behind the nipple tip, to the back of his mouth. A good latch, or attachment at breast, is the key both to baby getting enough milk during breastfeeding and to a mother's comfort. When a baby latches on deeply and has a good mouthful of breast, a mother feels comfortable, too.

During sucking, the baby's tongue moves up and back against the roof of the mouth in a wavelike motion. Then it drops and begins the cycle again. As the tongue drops, it creates suction, pulling milk through the openings in the nipple tip. Once enough milk collects at the back of the throat, the baby swallows. When watching a baby breastfeed, a mother will notice that the baby's jaw makes rhythmic movements and that his throat rolls something like a bullfrog's as he swallows.

Milk flows faster for several minutes after each letdown, so the baby gets more milk during these periods. With each letdown, more milk fat is moved out of the alveoli and made available to the baby. The amount of fat in milk rises as the feeding goes on. Since only the baby knows when she has gotten enough fat to feel satisfied, it is important for the baby – not the mother – to decide when to end the feeding. A satisfied baby usually looks relaxed and drowsy or sleepy, and lets go of the breast without help from mother.



The Basics of Breastfeeding

First Breastfeeding

A full-term, healthy newborn is usually eager for her first breastfeeding within 30 to 90 minutes of being born. The first hour or two after birth should be a time for getting to know the little person you have waited so long to meet, and it is also the time your baby is likely to want to breastfeed for the first time. Ask excited new grandparents and other family or friends to give you and your partner some quiet, private time to get acquainted with the new family member, especially if you would not be comfortable breastfeeding with one or more visitors in the room.

Baby-Led Latch/Attachment to Breast

To help a newborn begin breastfeeding, adjust the hospital bed to a semi-sitting position, which is similar to sitting in a recliner or lounge chair. Then place your “just-born” baby on your bare chest for some chest-to-chest, skin-to-skin time with you. (Baby can be patted dry while lying on your chest, and a sheet or blanket can be pulled up over both of you.) Skin-to-skin time with mother helps the newborn's body adjust after birth – mother's body warms and comforts baby's body. There is no set amount of time from placing baby skin-to-skin until the baby is ready for the first breastfeeding.

When ready, the baby will begin to move toward one of the breasts. Some babies peck their way over to the breast, a few babies bounce, others do more of a roll, and some suddenly lurch to a breast. Most babies also move lower on mother's chest or tummy in order to get below mother's nipple. Some babies travel to a breast and then scoot down, but others scoot down first and then move across to the breast. Once near a breast, a newborn will search for the nipple. Watch as your baby's mouth opens wider and wider each time he tries to latch. It probably will take a few tries, but don't be surprised when the baby suddenly latches and begins to breastfeed.

For this first breastfeeding, gently support your baby at the back and hips as the baby travels to the breast. The idea is to support without holding too tightly, so the baby does not have difficulty moving to the breast. Use your instincts about how much to help a newborn find the breast once the baby is in the right area. The nurse also will help you and the baby as needed.

After the first two hours, many newborns sleep for several hours, possibly up to 6 to 10 hours. Try to breastfeed every few hours during this time, but also use this time to catch up on your own sleep. If the baby has gone three or more hours without breastfeeding, change the baby's diaper and take baby's shirt, blanket and cap off so you can again place baby skin-to-skin on your bare chest and abdomen. If snugly swaddled for too long, a baby may not wake up often enough. Being placed in skin contact near the breast often reminds a baby to wake up and eat again.

Watching for Feeding Cues

The newborn lets mother know when she is ready to breastfeed through *feeding cues*, which are signs that a baby is getting hungry. It is important to watch for the newborn's feeding cues, because these cues help new parents learn about their baby's needs. Since each baby is an individual, each will have a somewhat different pattern or approach to cueing about his or her needs. A baby's “I'm ready to eat” cues include:

- Rooting (turning the head and opening the mouth, while appearing to be searching for the breast)
- Licking
- Sucking movements with the mouth
- Moving and stretching legs and arms
- Bringing hands up to the face and mouth
- Making “fussing” noises
- Crying, which is a *late* feeding cue; many babies have difficulty latching on well if crying. (This baby may need help calming down before breastfeeding. Being placed skin-to-skin with mother calms most newborns.)

Settling Down to Breastfeed

Getting into Position

There are several ways to hold a baby for breastfeeding. With the help of the nurses and lactation consultants, try different positions when in the hospital to find what works best for you and your baby. As baby grows and a mother feels more confident, other holds (positions) may work better or feel more comfortable. Be flexible and ready to change as you and your baby learn to work as a breastfeeding team.

A mother needs to feel comfortable no matter which breastfeeding hold she uses. Certain comfort measures are often recommended; however, mothers come in different heights, weights and breast sizes, so adapt comfort measures for a more personal fit. No matter which hold you prefer:

- Bring the baby to the breast – *not* the breast to the baby.
- Use pillow(s) as needed on your lap, at the side of the body and behind the back. Pillow placement depends on the feeding position and the way your and your baby's bodies fit together.
- Support the back well, whether seated in bed, a chair or using the side-lying position.
- If seated in a chair or on a sofa, placing your feet on a footstool may add support and feel more comfortable.
- Develop a breastfeeding station at home near your favorite spot in the house. You will spend a lot of time breastfeeding during the first few months, so breastfeed where you feel the most comfortable.

Breastfeeding Positions

Descriptions of the most common breastfeeding positions follow, but certain holds tend to work better during the first weeks or months after birth. For example, the **laid-back** position helps a baby use reflexes, or “instincts”, as he was born with to find and latch onto the breast comfortably, so the baby has more control. Both the **football** hold, also called the **clutch** hold, and the **cross-cradle** hold give a mother more control over the process of bringing baby to the breast for latch-on when she sees her baby's mouth open wide. The laid-back and football (clutch) holds also seem to work well after a Cesarean birth, because no pressure is put on the lower tummy area where the incision was made.

Most people think of the traditional **cradle** hold when they think of breastfeeding. However, even experienced breastfeeding mothers often use the football (clutch) or cross-cradle hold until their newborns learn to latch on more easily. Then they may switch to the cradle hold. Some mothers find the same is true for the **side-lying** position, but others find the side-lying position is very helpful while a baby is “learning” to breastfeed.



Laid-back position

Laid-back position

- Lean back comfortably so you are in a position similar to sitting in a recliner chair. (This is easy to do in a hospital bed. When home, use pillows in bed, on a sofa or in a chair if you don't have a recliner chair.)
- Place baby tummy-down on your chest with his cheek

against your bare breast. All of baby's chest should be against your chest. Gravity will hold baby comfortably in place.

- You will find that as baby wakes he will turn his head so that he can find the nipple and latch on. (Gravity also helps him get a deep latch.)
- You can help him a bit – use your own instincts – and you can hold your breast, but you don't have to, in a way that seems comfortable to you.

Football (clutch) position

- Lay baby along the side of your body and under your arm, using pillow(s) along the side of your body to support the baby's body and bring his head to the level of the breast. Baby's feet will lie in the direction of your back.
- Support baby's neck and shoulders with the hand that is on the same side as the baby. If baby is at the right breast and under your right arm, your right hand supports baby's neck and shoulders and then helps bring baby to the breast to latch on when he opens wide.
- Support the breast with the opposite hand. If baby is under your right arm, your left hand supports the right breast.



Football (clutch) position

Cross-cradle position

- Using pillow(s) on the lap, position the baby with his head and body facing the breast and mother's tummy. Baby's feet will lie in the direction of your opposite hip. If baby is at the right breast, his feet will lie across your tummy area in the direction of your left hip.
- Support baby's neck and shoulders with the hand opposite the breast. If baby is at the right breast, the left hand supports baby's neck and shoulders, and then helps guide baby to the breast to latch on when he opens wide.
- Support the breast with the hand on the same side as the breast being used for the feeding. If baby is at the right breast, the right hand supports the right breast.



Cross-cradle position

Some mothers switch to the cradle position after the baby is latched well. To do this, move your hand from the breast and wrap your arm around baby's body so that baby's head rests on your arm. Then move the opposite hand, which had been supporting baby's neck and shoulders, to support the breast if needed.

Cradle – “Traditional” position

- Using pillow(s) on the lap, position the baby with his head and body facing the breast and mother's tummy. Baby's feet will lie in the direction of mother's opposite hip.
- Hold the baby “in arm” on the same side as the breast offered. (Hold in left arm when feeding at the left breast and right arm at right breast.) Baby's head rests on mother's arm – not on the inner elbow area.
- Support the breast with the opposite hand and pull the arm that is cradling baby in toward the breast when baby's mouth opens wide to latch on.



Cradle – “Traditional” position

This position is used more often after a mother and baby become a skilled breastfeeding team.

Side-lying position

- Lie down and turn on one side, using pillows as needed to support your head and back. Many mothers place a pillow between their legs for more support and comfort.
- Lay baby on his side facing you.
- Some mothers cradle baby's head in the crook of the arm and support baby's back with the forearm; others lay the baby on the mattress facing mother and then place a rolled blanket or towel at baby's back for support.
- Support your breast with the opposite hand. If cradling the baby, pull that arm in toward the breast when baby's mouth opens wide to latch on.



Side-lying position

Baby Latches to the Breast

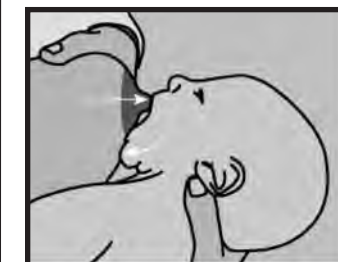
For a newborn to latch on well and then combine sucking and swallowing with breathing during feeding, his body needs to be in alignment during breastfeeding. A baby is more comfortable and able to feed better in all breastfeeding holds when his:

- Head is higher than his hips, which helps the baby handle the flow of milk coming into his mouth.
- Head and body are in good *ear-to-hip alignment*, which means one could draw an imaginary line from baby's ear straight down through the shoulder and upper arm to baby's hip. (Everyone from infants to adults chooses this alignment when eating.) Baby's tummy will face or be turned slightly inward toward mother's tummy, and his head will be tilted *slightly* upward or back. Baby's chin should not be pointing down toward his chest.
- Eyes are level with the breast so that the nipple tip of the breast is at baby's nose or upper lip.

Once mother and baby are positioned comfortably and mother is supporting the breast in her hand, she can help her baby to latch on, or attach, at the breast by moving baby and breast so that:



The nipple tip is level with baby's nose or it rests at, or on, baby's upper lip (“nipple to nose” or “tip on upper lip”).



Baby's lower lip and chin touch the breast, which tells baby's mouth to open wide. (It may take a few tries, but baby will open his mouth wide.)



Guide baby gently but very quickly onto the breast when the mouth is wide open so that the baby has an immediate, deep latch with mother's nipple tip well back in baby's throat.

All illustrations in section 2 are reprinted from: <http://www.4woman.gov/Breastfeeding/Learning/> **except** the laid-back position illustration which is from: ©Nancy Mohrbacher, IBCLC, FILCA www.NancyMohrbacher.com

- The feel of the breast in the mouth causes the baby to begin sucking, which draws the breast in even more deeply.
- At the end of a feeding, the nipple may look longer than when it went into baby's mouth but it looks as it always does after a minute or two.

Babies don't nipple-feed, they breastfeed, so with a correct latch a baby will have a good mouthful of breast. Since a baby's lower jaw does most of the work of breastfeeding, more of the lower areola on the breast is usually covered by baby's mouth than upper areola area.



If baby's mouth isn't open wide enough or if it begins to close before baby latches on, STOP and then start again. It may take several tries before you "catch" baby's mouth at just the right moment. Also, if latch-on doesn't feel quite right or if breastfeeding hurts, STOP the feeding and start again.

To stop breastfeeding, place a clean finger in the corner of baby's mouth and between the upper and lower gums to gently break the suction. Do not pull the breast out of baby's mouth without breaking the suction, as this may be quite painful to your breast.

During breastfeeding, a baby's chin and lower jaw drops with each suck. Baby's throat may look sort of like a bullfrog does when swallowing something. Since colostrum is thicker and is in lower amounts, breastfeeding is fairly quiet or smooth during the first few days and you may not hear baby swallow or gulp. However, if you hear baby make clicking sounds during breastfeeding or you see dimples appear in baby's cheeks during sucking, ask a nurse or lactation consultant to watch and listen to your baby breastfeed.

Mother's Comfort

Cramping

In the first few days after birth, many new mothers feel some cramping while breastfeeding or soon after, especially with a second or later baby, and the cramping tends to feel more intense with each additional baby. This cramping is caused by the release of the hormone oxytocin, which causes the milk-ejection reflex (MER), or milk letdown, and also causes the uterus to tighten. These *afterbirth cramps* are a good sign! In addition to knowing that baby's sucking is causing milk letdown, the tightening of the uterus helps control bleeding and get the uterus back to its pre-pregnant size. Breastfeeding-related cramping lasts only a few days, feels milder each day, and usually disappears before the end of the first week.

Baby's Latch and Mother's Nipples

Latch-on is a new feeling for the mother who has never breastfed before, but breastfeeding is *not supposed to hurt*. (If breastfeeding was supposed to cause pain and nipple damage, the human race would probably not have survived!) When the nipple tip is positioned correctly in a baby's mouth, the latch-on process and sucking do not usually hurt a mother. A slight pulling-rugging sensation is all a new mother should feel during breastfeeding.

Some mothers do report nipple tenderness or sensitivity during the early days of breastfeeding, but this usually gets better by the end of the first week. Breastfeeding should not cause a mother to feel pinching, biting, bruising, grating or any sharp type of pain. Also, when a baby finishes breastfeeding, the nipple should not look flattened, creased, blistered or cracked, and it should not look a lot redder, or be a bright or bluish-white color.

If breastfeeding really hurts or the nipple skin is damaged, something is *wrong* with the baby's latch no matter how "good" or "right" a nurse or lactation consultant says it looks. She cannot see how the breast looks from the inside of a baby's mouth during breastfeeding. Do not wait to get help if you feel pain or notice any damage to the nipple. If one nurse or lactation consultant is unable to help you fix the problem, ask to see another.

Time to Eat

How Often

A breastfed baby should eat when hungry, and a young breastfed baby will usually become hungry and cue to feed about every 1-1/2 to 3 hours. *Anytime a newborn acts interested in feeding, offer the breast.* A newborn cannot breastfeed too often during the learning period.

If more than 3 hours pass and a baby does not seem ready to eat again, place baby skin-to-skin between mother's breasts. When skin-to-skin with mother, a baby slowly wakes and then lifts his head and begins to move toward one breast when hungry. A baby may latch onto the breast with only a little help from mother when in the skin-to-skin position, or a mother may want to move him to whichever breastfeeding hold seems most comfortable.

Some babies are really sleepy and eat less frequently than needed during their first several days. The too-sleepy baby should be placed skin-to-skin between mother's breasts as much as possible to remind him to wake for breastfeeding. Sometimes it takes an hour or more for a baby to wake. However, if a baby continues to sleep while skin-to-skin, and a mother needs to take care of her own needs, she can stop and try again later. If a baby still is not waking after 4 hours or more have passed, use the techniques suggested for *The Sleepy Baby*, page 9, in section 3. Also, see the care plan on page 30, which may be started when a baby

has not yet begun to breastfeed or is not breastfeeding frequently enough by 24 hours after baby's birth.

How Long

Most newborns and young babies will breastfeed for about 15 to 20 minutes on the first breast at each feeding, with a "normal" amount of time from 10 to 30 minutes. Although young babies pause more often because they are still learning how to use their mouths well during breastfeeding, mothers should notice consistent, active sucking for at least the first 10 minutes.

Let the baby be the one to decide when it is time to stop breastfeeding, so she can finish the first breast first. When a baby finishes a breast, she lets go, or self-detaches, from the breast without help from mother. In the past, mothers were told to breastfeed for a certain number of minutes and then switch breasts, but this is not good advice. A baby may miss out on important calories from fat if the set time to switch breasts doesn't suit that particular baby. In addition, the fat helps a baby digest the milk more slowly so he's likely to feel full longer, which may lengthen the time between some feedings.

Putting It Together

Begin feeding on one breast. Because babies often pass stool when at the first breast, be ready to change his diaper when he finishes and self-detaches from the breast. He'll probably burp and wake again during the diaper change, so offer the second breast after changing him. Most babies don't feed as long or as actively at the second breast. Some babies are eager to feed from both breasts with every feeding, but others may want both breasts for only some feedings. Still others are content with one breast for most or all feedings. This can change from one feeding to another and from day to day. At the next feeding, start by offering the breast a baby finished with or the breast the baby didn't take if baby fed from only one breast at the last feeding.

Is Baby Getting Enough?

Newborn – first week

When a newborn is breastfeeding and removing milk properly, for each 24 hours the baby should:

- Wake and cue to feed *at least* 8 to 10 times.
- Spend *at least* 10 to 20 minutes of active, consistent sucking and swallowing at the first breast.
- Wet *at least* 1 extra diaper through day 6, beginning with at least 1 wet diaper in the first 24 hours after birth, at least 2 wet diapers during the second 24 hours, at least 3 during the third 24 hours, and so on.
- Pass *at least* 1 extra stool through day 4 or 5, beginning with at least 1 stool during the first 24 hours after birth, at least 2 during the second 24 hours, and so on.

In addition, proper breastfeeding during the first few days means:

- Baby should lose no more than 7 to 10 percent of birth weight.
- Mother feels comfortable when breastfeeding and does not have nipple pain or damage.
- Milk volume increases a lot by days 3 to 5.

Weeks 2 to 8

In each 24 hours, the baby who is getting enough to eat:

- Wakes and cues to feed *at least* 8, and up to 12, times and breastfeeds for about 10 to 30 minutes on the first breast.
- Soaks *at least* 6 diapers with urine.
- Passes *at least* 4 loose, yellow, seedy-looking stools.
- Gains *at least* 2/3 ounce (20 gm), for a total of *at least* 4 to 7 ounces, or 120 to 210 gm, a week.

By 2 weeks of age, a full-term baby should wake often enough and be alert for feedings without someone having to wake him. When breastfeeding well, a baby should have regained birth weight by 2 weeks of age, and baby will seem to be filling out clothing that fit or was loose just a week ago. Also, both length and head circumference will have increased. The skin of a healthy baby is firm and has good color.

Good diaper counts are one of the best signs that a baby is breastfeeding well. Continue to use the yellow *Babies Intake and Output Record of Feedings and Diaper Changes*, which a nurse gave you on the Mother-Baby Unit, until your baby has had a weight check showing proper weight gain. (There is an additional copy of this form on page 51.) A weight check usually occurs during the second week after birth.

Cluster Feeding and Growth Spurts

Babies may be more active and they often act fussier in the evening or at night for the first few weeks or months, so expect some *cluster* or *bunch* feedings later in the day. During cluster feeding, a baby breastfeeds frequently, or almost nonstop, for an hour or two before settling down for a longer stretch of sleep.

Cluster feeding is different than feedings that last more than 35 to 45 minutes at the first breast. When almost every feeding is lengthy or the baby never seems to settle down or act satisfied, it may mean the baby is breastfeeding less effectively. However, an occasional *frequency day*, when a baby wants to breastfeed more often or for longer periods, is common.

When everything seems to be going well but a baby suddenly wants to breastfeed constantly, mothers often wonder if they have enough milk. However, this usually is a *frequency day* or it may be one of several growth spurts. During a 2 to 3 day *growth*

spurt, a baby may seem to want to breastfeed around-the-clock for a few days. Expect a growth spurt at some time between 10 to 21 days, then between 4 to 6 weeks and again between 3 to 3-1/2 months. Many mothers report their babies seem to be more settled after each of these spurts. The best way to deal with a growth spurt is to let the baby breastfeed frequently.

Developing a Support Team

A new mother-baby breastfeeding “team” needs the support of family and friends for encouragement, help with household tasks, the care of an older child, meals, etc. Don’t be shy about asking for help when in the hospital or at home. The one thing that only you can do is breastfeed the baby! In addition to helping around the house, others could help with breastfeeding by:

- Bringing the baby to you
- Helping you find a comfortable position for feedings
- Providing extra hands as you learn to position the baby for breastfeeding
- Changing the baby’s diapers and noting it on the *Babies Intake and Output Record of Feedings and Diaper Changes* on page 51
- Bringing food and liquids to you while you breastfeed
- Watching the baby while you nap.

Although help is needed, limit visitors during your hospital stay and your first days at home. This is the time for you and your partner to get to know your baby.

If you ever have a question about how well the baby is breastfeeding, wonder if you have enough milk, or aren’t sure about baby’s weight gain or if wet or dirty (stool) diaper counts are okay, contact your baby’s pediatric care provider and call TriHealth’s Breastfeeding and Lactation Support Services at 513-862-PUMP (7867) or another breastfeeding support person.

3

Common Questions and Concerns

Breastfeeding is a Learned Art

Breastfeeding is natural, so it should work with every baby, every time. Isn’t that right? Actually, it often takes time to learn to work with a newborn breastfeeding partner. Then, add the normal adjustments that come with having a new member in the family while still recovering from pregnancy and birth, and breastfeeding does not always seem easy in the beginning. Patience, persistence and a positive attitude can help as the baby learns this new task.

When an expectant mother says that she is going to breastfeed, she does not always hear how wonderful breastfeeding can be. Some mothers face challenges in the early days and weeks of breastfeeding, and these mothers may be quick to share any problems they had with latching, a sleepy baby, a baby with jaundice, painful nipples, engorgement, etc. All of these problems sometimes happen, but many are avoidable when a mother asks for help sooner rather than later! Once you and your baby are past the early learning period, it will be difficult to imagine anything easier than breastfeeding.

This section looks at the more common situations that may occur during the early months of breastfeeding. If you experience a breastfeeding difficulty or have a question about breastfeeding or breast pumping, check the section with *Individualized Care Plans* for specific information. If you can’t find answers in this booklet, do *not* wait to get help.

Baby Issues

The Sleepy Baby

(See care plan 2 on page 30.)

A newborn needs to breastfeed *at least* 8 times, and up to 12 times, in 24 hours, so expect a young baby to breastfeed every 1-1/2 to 3 hours around the clock. (Some newborns have a 4- to 5-hour period without breastfeeding at some point in 24 hours, but very few have more than one such period.) For a baby to take in enough milk, he will need to actively breastfeed for more than 10 minutes each feeding. If a newborn often sleeps too long or falls asleep within a minute or two of starting to breastfeed, it is important to wake and encourage him to breastfeed more often or for longer periods.

Ideas for waking a sleepy baby

1. It is easier to wake a baby during light sleep rather than deep sleep. Watch for signs of light sleep, such as:
 - Restless moving or stretching of baby’s arms and legs
 - Twitching movements under baby’s eyelids
 - Sucking motions or sounds
 - Grimacing or changes in facial expression
 - Making little noises
 - Bringing hands to face or mouth.
2. Dim the lights. Bright lights often make a baby close his eyes.
3. Loosen or remove blankets and clothing by:
 - Removing clothing, except for baby’s diaper
 - Changing baby’s diaper.
4. Place the baby skin-to-skin with his chest on your chest. You can cover both of you with a light blanket.
5. Gently stimulate baby to waking by:
 - Stroking baby’s hands and feet
 - Moving baby to a sitting or standing position
 - Stroking *up* baby’s back from hips to shoulders (up to wake; down to calm)
 - Using a warm (*not cold*) wash cloth to stroke his back or cheek
 - Rocking him gently back and forth as if doing sit-ups (with baby “bent” at the hips – not at the waist)
 - Making gentle bicycling motions with his arms and legs. NEVER shake a baby to wake him!
6. When the baby opens her eyes, look her in the eye and talk to her.
7. Circle baby’s lips with a clean finger.

Ideas to remind baby to keep breastfeeding

If a baby pauses too long or drifts to sleep, remind him to start breastfeeding again by:

- *Compressing* the breast being used for feeding by applying a firm but gentle inward squeeze or pressure from a few inches above the nipple (this also moves extra milk down into the baby’s mouth)
- Lifting one of baby’s arms, or massaging baby’s hands, feet or temple (the area on baby’s face by his ear)
- Changing baby’s diaper and burping him after he finishes the first breast.

3. COMMON QUESTIONS AND CONCERNS

Other Reasons for a Sleepy Baby

The late preterm baby

(See care plan 3 on page 31.)

The baby born between 34 to 37 weeks gestation (3 to 6 weeks before the “due date”) is considered to be a *late preterm* newborn. Late preterm newborns are more likely to have difficulty with any feeding method than full-term babies; however, the baby will get better at breastfeeding with time. Many late preterm newborns will latch on to the breast well and may suck for several minutes, but this baby may have difficulty breastfeeding long enough to get enough milk. Some late preterm newborns also have difficulty latching on, or they are more sleepy and do not wake as often as needed for good breastfeeding until they get a bit older.

Newborn jaundice

Jaundice causes a yellowish color of baby’s skin. A newborn has extra red blood cells after birth and the breakdown of these cells releases something called bilirubin. A newborn gets rid of bilirubin through his stool, and colostrum, mother’s early milk, has a laxative effect that helps a baby get rid of the bilirubin. Most newborns become a little jaundiced within a few days after birth, but it usually doesn’t cause a problem for a full-term baby, especially one that is breastfeeding well. However, a baby may become too sleepy and not wake often enough to eat if bilirubin increases. Contact the baby’s doctor if you think your baby looks jaundiced (yellowish) and stay in contact with a lactation consultant.

When a Nipple Shield is Suggested

Sometimes a lactation consultant or nurse may suggest that a mother use a nipple shield when breastfeeding a sleepy or late preterm baby. A nipple shield is a thin silicone device with holes in the tip that fits over the mother’s nipple. This device is sometimes useful if a mother has a flat or inverted nipple, or the nipples are very tender. When a nipple shield is used, the nurse or lactation consultant should show the mother how to use it correctly. It is important to stay in contact with a lactation consultant until breastfeeding and milk production are well established. (See care plan 5 on page 33.)

Supplementing a Breastfed Newborn

(See care plan 11 on page 39 and care plan 8 on page 36.)

When a baby does not breastfeed well for some reason, a baby still needs to eat, so supplements with a mother’s own milk or formula may become medically necessary. Don’t despair if you must supplement for a medical reason. A lactation consultant will discuss different ways to give a supplement, so that it’s less likely to interfere with breastfeeding when the baby is ready. With help and persistence, the baby’s ability to breastfeed will improve.

It is important to begin pumping the breasts at the same time a baby begins to receive a supplement to establish good milk production and make sure the baby receives as much of mom’s own milk as possible. When a baby isn’t yet able to remove enough milk by breastfeeding well at least 8 times in 24 hours, milk still needs to be removed by expressing it. (Some mothers obtain more colostrum when they hand express it for the first few days, or they combine hand expression and using the hospital breast pump.) Ask your nurse to bring a breast pump to you. She and a lactation consultant will teach you how to use it.

Plan to rent a breast pump like the one used in the hospital if the baby still is not breastfeeding well by discharge. No matter what kind of personal breast pump you may already have at home, it was not made for several days to weeks of every-few-hours pumping to help bring in a good supply of milk and then keep it in. Most mothers report they get more milk in less time when they use a rented breast pump. For milk production to be ready when the baby is ready to breastfeed (and he or she will be), it helps to use the right breast pump for this particular job.

The Fussy Baby

A newborn baby may fuss for many reasons. Fussiness is rarely related to a mother’s own milk, since a mother’s milk was designed by nature as the most easily digestible food a young baby can have. When your baby acts fussy, ask whether the baby may be:

- Hungry (yes, again!)
- Need to burp
- Wet or have a stool (“dirty” diaper)
- In need of cuddling
- Uncomfortable or in need of reassurance if alone
- Going through a growth spurt.

Some young babies need more time in mother’s arms than others. The high-contact baby often breastfeeds well, has plenty of wet and dirty diapers, and gains weight fine. The baby may seem perfectly content after breastfeeding until his mother tries to put him down. Then this baby wakes and fusses or cries, acting as if he’s still hungry. This baby may still be hungry, but he could be more “hungry” for contact with mom. It is normal for an infant to seek contact and movement on an adult’s body. Actually, being expected to lie quietly in a crib, play yard or infant seat for any length of time is more unusual for human infants.

Another reason for fussing may be not enough breastfeeding. Trying to set a feeding schedule by making a baby wait longer from one breastfeeding to the next is likely to lead to an unhappy, fussing baby. Eventually, it may lead to a baby who is not gaining enough weight, which also will cause milk production to

3. COMMON QUESTIONS AND CONCERNS

drop. The baby given too many “relief” feedings may get used to the instant flow through a feeding bottle, which may cause the baby to become impatient when she must wait for milk to let down at the beginning of a breastfeeding. Too many relief feedings also will hurt milk production, which can lead to more and more supplementation.

Calming the fussy baby

To calm a fussy baby who is breastfeeding well, has an appropriate amount of wet and dirty diapers every day, and is gaining adequate weight, try:

- More breastfeeding
- Wearing baby in a sling or infant carrier, which frees a mother’s hands so that she can do something else while soothing the baby as she moves about
- Placing baby skin-to-skin between your breasts
- Swaddling baby snugly.

Contact the baby’s doctor if fussiness is frequent and persists for more than a few days. Also stay in contact with a lactation consultant, as she may be able to help you tell whether the fussy behavior is normal infant behavior or there seems to be some other reason for it.

Mother Issues

Sore Nipples

(See care plan 15 on page 43.)

Sore nipples are one of the reasons mothers most often give for quitting breastfeeding. Yet, nipple pain can often be prevented or quickly turned around by improving mother-baby positioning and by helping a baby get a deeper latch.

Nipple tenderness is fairly common in the first few days of breastfeeding. However, this tenderness is mild and usually does not last longer than the first week. A mother should *not* feel continued tenderness, severe soreness or actual pain, or have any kind of skin damage to the nipple or areola. These signs often mean that a baby is not latching properly. When not latching well, a baby may not remove milk from the breast as well as he should. So, this baby is likely to breastfeed even more often or longer to get enough milk, which may cause even more nipple pain or damage. Sometimes the way a baby’s mouth or tongue works makes it difficult for a baby to latch well. Also, a yeast infection on the nipple area may cause pain and damage.

Healing can begin when the cause of the nipple problem is fixed. Read *Mother’s Comfort: Baby’s Latch and Mother’s Nipples* in section 2, page 6, and follow care plan 15 on page 43. Also, discuss your particular situation with a lactation consultant or a breastfeeding support group leader, since different circumstances may lead to sore or damaged nipples.

Flat or Inverted Nipples

(See care plan 16 on page 44.)

Babies don’t nipple-feed; babies breastfeed. A baby latches on past the nipple tip and deeply over the areola or breast tissue behind it, so a flat or inverted nipple does not always interfere with breastfeeding for a full-term baby. Still, learning to latch is sometimes a challenge for a baby when a mother’s nipples are flat or inverted.

Some women experience flat nipples after giving birth, although their nipples usually evert (stand out). This may be due to an accumulation of fluid late in pregnancy, and some believe it may be related to IV fluids given during labor and birth. This type of flat nipple usually returns to its usual shape within a few days after birth.

Ideas for helping a baby latch when nipples are flat or inverted are in care plan 16 on page 44. Ask your nurse and a lactation consultant for extra help, and stay in touch with a lactation consultant until your baby breastfeeds well.



Typical everted nipple



Flat nipple



Inverted nipple

Reprinted from:

<http://www.4woman.gov/Breastfeeding/index.cfm?page=229#nipples>

Breast Engorgement

When the increased volume of milk “comes in” between 2 to 5 days after birth, the breasts may suddenly feel fuller, heavier and tender. The breasts become *engorged* with milk and with other fluids that are used to make the milk. This normal fullness usually goes away after 2 to 3 weeks when a baby is breastfeeding often and well, so the breasts often feel softer even when a mother is making plenty of milk.

3. COMMON QUESTIONS AND CONCERNS

Some women develop hard, knotty, swollen, painful breasts when the milk first comes in. This severe or extreme breast engorgement is generally due to extra fluid in the breast tissue rather than an increase of milk. In addition, the nipple and areola may become flatter, making it difficult for a baby to latch on. This may result in nipple soreness or less milk removal.

Preventing Engorgement

A woman is less likely to have extreme breast engorgement when her baby breastfeeds frequently and well from birth, or she pumps her milk often if her baby cannot yet breastfeed well. When breasts feel fuller with the greater volume of milk that comes in, it may be helpful to breastfeed more frequently for a day or two.

Relieving Engorgement

(See care plan 14 on page 42.)

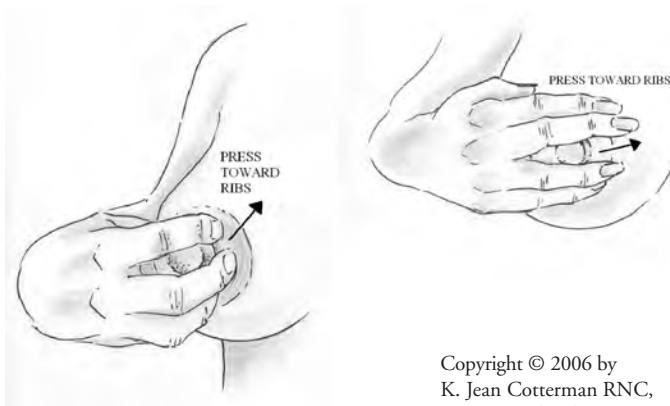
It is important to treat severe breast engorgement quickly, because it may lead to other breastfeeding problems. The keys are to decrease the swelling and get the milk moving. With early treatment, engorgement usually improves greatly within 24 hours. Just as cold helps relieve swelling in other parts of the body, applying a cold compress may help decrease the swelling in the breast. To move the milk, breastfeed and breastfeed some more. Avoid giving supplements or using a pacifier, which may interfere with milk removal and relieving the engorgement. If a baby has difficulty breastfeeding because of engorgement, use an effective breast pump until the areola softens and the breasts are less engorged. Also, use a pump more often if you have already been pumping for some other breastfeeding difficulty.

In addition to applying cold compresses and doing extra breastfeeding or pumping, use *reverse pressure softening* (RPS) just before breastfeeding or pumping to move fluid away from the nipple area, which makes it easier for a baby to latch on. To do RPS, see the illustration and:

- Place the fingers and thumb on the areola at the base of the nipple tip
- Gently, but firmly, push the areola inward toward the ribs, which may feel tender for the first minute or so
- Keep applying firm, steady pressure on the areola for two to five minutes. Some find it helpful to reposition the fingers a bit farther back on the areola, away from the nipple tip, after a few minutes and repeat the process
- The nipple and areola should be soft and stretchy like an ear lobe – not firm like a chin – when you finish.

Contact a lactation consultant or an experienced breastfeeding support leader if you need additional help during engorgement.

Reverse Pressure Softening



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Plugged Milk Ducts and Mastitis

(See care plan 17 on page 45.)

Mastitis is an inflammation of the breast. Usually only one breast is affected. It may occur when milk is not removed well enough or often enough. In many instances, inflammation follows a plugged (blocked) milk duct. Sometimes, bacteria enter the breast through a cracked nipple and lead to an infectious mastitis. A mother may be slightly more at risk for mastitis in the first few weeks after birth. One of the reasons that lactation consultants stress keeping the milk moving and treating sore nipples is to avoid mastitis.

When a plugged duct occurs because of poor milk movement, a mother usually describes a tender spot or sore lump in some area of the breast. The skin in that area often looks pinker or red, which is a sign of inflammation. Some women report a slight fever but others have none at all with *inflammatory mastitis*. Flu-like symptoms, such as an achy feeling throughout the body, a fever of 100° F or higher, and possibly nausea with or without vomiting may mean a mother now has *infectious mastitis*.

Call your own health care provider for treatment if signs of infectious mastitis occur, and keep milk moving by breastfeeding frequently to empty the breasts, especially the affected breast. Continuing to breastfeed will not make the baby sick, and stopping breastfeeding or pumping during mastitis may lead to a worse infection or a breast abscess. If breastfeeding feels too uncomfortable, use an effective breast pump to remove milk from the breast affected by mastitis and continue breastfeeding on the unaffected breast.

3. COMMON QUESTIONS AND CONCERNS

Breast Surgery or Injury

Breastfeeding and milk production may be affected by breast or chest surgery, or a history of a severe injury in the breast or chest area. New mothers often report their biggest concern after breast surgery or severe injury is “Will I make enough milk?” Yet, most of these women are able to breastfeed fully or partially. The only way to know how well breastfeeding and milk production will work is to begin to breastfeed and see what happens.

Charting for several weeks the number and length of breastfeeding sessions and the number of baby’s wet and dirty diapers is especially important to be sure a baby is getting enough milk. The baby’s doctor needs to know about mother’s surgery or injury, so baby’s weight gain can be watched more closely at first.

The lactation consultant and your nurses on the Mother-Baby Unit also should be told about the surgery or injury, so they are better able to help you and your baby get off to a good breastfeeding start. They will show you how to keep track of baby’s input (number and length of breastfeeding sessions) and output (diaper counts). Stay in contact with a lactation consultant or an experienced breastfeeding support person until you know breastfeeding is going well. If milk production is lower, she will be able to help you make a plan for partial breastfeeding.

Do not wait to get help or information for any breastfeeding question or concern. Call TriHealth’s Breastfeeding Support and Lactation Services at 513-862-PUMP (7867) or a breastfeeding support group leader.

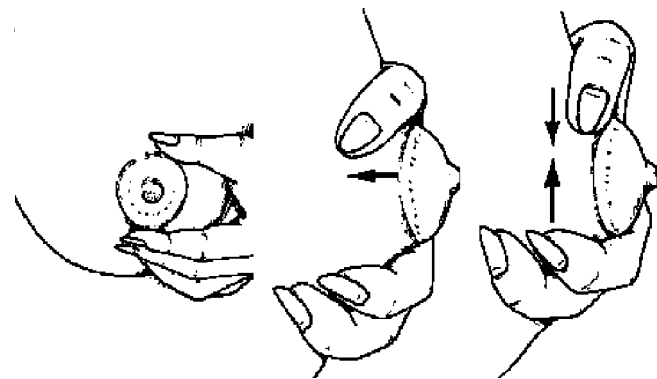
Reasons for Expressing Milk

Mothers choose to express milk and save it for many different reasons. A baby may be in the NICU or SCN and may not be able to breastfeed at first. Some mothers may be returning to an outside job or school schedule. Others may want milk available for an occasional relief feeding when they will be away from baby for a few hours. And some mothers use their expressed milk when they are out with their babies because they are not comfortable breastfeeding in public. A few mothers (or babies) have difficulty with the breastfeeding process, so a mother may pump to provide her milk for expressed-breast-milk feedings. Each of these mothers wants her baby to receive all of the advantages of mother's own milk. However, each may choose a different way to obtain that milk for her baby, as some methods work better for certain situations.

Some mothers are able to express or pump their milk more easily than others. The amount of milk obtained from breast pumping is not a good indication of a mother's ability to produce enough milk for her baby. Milk may seem to pour out of one woman when she expresses it, while another has to work hard for every ounce. Yet, the babies of both women may be thriving on their mother's own milk.

Expressing Milk by Hand

Hand, or manual, expression is a useful skill to learn. For instance, hand-expressing milk onto the nipple may help a baby to latch on. During the first few days after birth, many mothers may find it easier to express colostrum by hand rather than using a breast pump. Plus, hand expression is free, and it may come in handy if a mother does not own a breast pump or is out without one.



There are different techniques for manual milk expression, including the one pictured to the left below. Other illustrations or photos of techniques used for hand (manual) expression may be found via the links in the Resources section of this booklet under *Internet Breastfeeding Help*, page 50.

Expressing Milk with a Breast Pump

Many types of breast pumps are available today. Deciding which one is best will depend on the reason for expressing milk and how often milk needs to be expressed. A mother pumping several times a day while at work or school may find that a breast pump that can remove more milk in less time is a good investment. If expressing milk for an occasional relief feeding, a mother probably can get by with a less expensive or less fancy breast pump. The mother who depends only on pumping to bring in and make enough milk needs the most effective pump. For help in selecting an effective breast pump and developing a plan for pumping that is least likely to interfere with breastfeeding, contact a lactation consultant or a breastfeeding support leader.

Breast pump quality is not monitored by any government or consumer agency. Before buying a personal pump, look for ones from companies that have performed good product research. More effective breast pumps tend to mimic the rhythm of a baby breastfeeding by self-cycling the suction between 30 to 60 times a minute. Some of the hand or mini-electric pumps require a mother to cycle the suction – self-cycling is not built into the pump. Nipple soreness or damage and decreased milk production may result from the use of such breast pumps. Use caution when considering a breast pump made by a toy, infant formula or baby food company, because little research may be available. A woman also should be cautious about borrowing another woman's breast pump or buying one secondhand. A link to a statement on pre-owned breast pumps is in the Resources section under *Medela® Breast Pump Rental and Sales in Greater Cincinnati*, page 47.

Types of Breast Pumps

Personal Pumps

Breast pumps bought at a hospital or pharmacy, over the Internet, or at discount department stores are considered *personal* breast pumps. Less expensive personal pumps may be hand- or battery-operated. Some smaller electric breast pumps are called mini-electric pumps. There are models that can pump only one breast at a time and others that pump both breasts at once. These kinds of breast pumps may work well enough for

4. EXPRESSING AND STORING MOTHER'S MILK

the mother who has well-established milk production and a baby that breastfeeds well, and she expresses milk a few times a week or less.

More effective personal pumps are made for mothers who must express their milk several times a day because of a return to work or school. Most of the better personal pumps are electric and allow a mother to pump both breasts at once if she chooses. Some companies even call their version "hospital-grade." However, the motors in these personal pumps are *not* made for days or weeks of round-the-clock pumping, and they do not have the power of rented breast pumps. This means the pump may not remove milk as thoroughly or it will take longer to thoroughly remove the milk in the breasts than it would with a rented hospital-grade breast pump.

Rental Pumps

Breast pumps rented by a mother for a period of time and then returned to a rental station have stronger motors that were built to last for years. These pumps may be used frequently and by many women over long periods of time. Only rental pumps were made for around-the-clock use to help establish and then maintain good milk production. For this reason, many lactation consultants think rental breast pumps are the only kind that should be called "hospital-grade" breast pumps. A mother must buy a non-returnable *collection kit*, which includes the tubing that attaches to the pump, the pieces that fit over the breast and the milk-collection bottles, to use with a rented pump.

Pumping for a Newborn Baby

When expressing milk for a sleepy, preterm or ill newborn who is not yet able to breastfeed well, a *rented* hospital-grade electric breast pump is strongly recommended. Only these pumps were made for round-the-clock use to establish and maintain milk production. Once the volume of milk comes in, most mothers find they can remove more milk in less time with a rented hospital-grade pump. Good milk removal is very important to continued good milk production, and saving time usually means a mother can pump more often. Studies have shown that prolactin, the milk-making hormone, is higher when using a rented hospital-grade breast pump. TriHealth Breastfeeding Support and Lactation Services rents breast pumps, as do some pharmacies and medical equipment companies in the area. Rental stations are listed in the Resources section under *Medela® Breast Pump Rental and Sales in Greater Cincinnati*, page 47.

Returning to Work

Many mothers work outside the home or attend class, yet they continue to breastfeed. There are as many ways to make breastfeeding work for working mothers as there are mothers and babies. Being creative about fitting breast pumping into the work day and investing in a good breast pump are helpful.

Choosing the best breast pump for the situation is likely to depend on whether a mother works or goes to school full- or part-time, and how long the work or school day lasts. The better personal electric breast pumps or hospital-grade rental pumps help mothers obtain the most milk in the least amount of time.

Plan to begin pumping once or twice a day at least two weeks before returning to work or school. This lets a mother get used to the pump, increases milk production and provides milk to use when mother is working. Once a mother is back to work or school, breasts should be pumped approximately every 3 hours. (Include travel time to and from work/school when figuring out how many pumping sessions will be needed.) If possible, breastfeed once or twice before leaving the house and let the baby's care provider know that you are on the way home, so the caregiver does not feed the baby just before the mother picks him up.

Once breastfeeding is well established for several weeks or a few weeks before a return to a job or school, many parents introduce the feeding method that baby will use while mother is away. Generally, offering a bottle, cup, etc. two or three times a week is enough for a younger baby to become comfortable with another feeding method. It also helps to let someone other than mother handle the new feeding method, since the baby is likely to want to breastfeed if mother tries it.

If a job or school doesn't allow for frequent pumping or pumping is not possible during work hours, many mothers pump when possible and then breastfeed at home. They also breastfeed more frequently during days off.

Storage of Breast Milk

Bacteria and viruses are less likely to grow in expressed mother's milk because of the disease-fighting properties it contains; however, a mother should *always wash her hands* before expressing or pumping milk and before handling stored milk*. A mother's expressed/pumped milk may be stored for:

- 4 hours at a room temperature of 72-79° F (22-26° C)
- 6-10 hours at a room temperature of 66-72° F (19-22° C)
- 24 hours in a cooler with 3 or more frozen ice packs at 59° F (15° C)
- 5-8 days in a refrigerator at 32-39° F (0 to 4° C)
- 3 to 4 months in a self-contained, separate-door freezer unit of a two-door refrigerator-freezer
- Up to 12 months in a separate "deep" freezer at a constant 0° F (-18° C)

*A mother may receive somewhat different instructions for storing milk if her baby is in the NICU/SCN. Be sure to use their instructions.

4. EXPRESSING AND STORING MOTHER'S MILK

Place human milk in the back of the refrigerator or freezer, away from the door. If the freezer is a self-defrosting model, place the containers away from the defrost unit. Label expressed milk with the date it was pumped, and then use the milk with the oldest date first. (If milk is placed in a “community” refrigerator at work, the mother’s name should be included on the label.) Breast milk may be frozen in a bottle with a tightly fitted lid or a special bag made for storing and freezing human milk. Any storage container placed in a freezer needs room for the milk to expand during freezing. (The seams of the bag may split if a bag is not made for freezing.) *Freeze milk in small quantities, about 2 to 4 ounces, to avoid waste.*

To thaw frozen mother’s milk or heat to give a baby:

- Move it to the refrigerator to thaw, which may take 12 to 24 hours.
- To thaw milk more quickly or heat thawed milk, place the sealed container in a bowl of warm water or under warm running water. (NEVER microwave mother’s milk, as this may harm disease-fighting cells in the milk and it may create hot spots within milk that could burn a baby’s mouth. Do *not* heat mother’s milk on the stove, as this also may hurt disease-fighting cells in the milk.)
- Gently swirl – don’t shake – thawed milk to mix the milk layers. (Expressed mother’s milk separates and forms layers, because it is not homogenized.)
- Store thawed milk in the refrigerator for up to 24 hours. Do *not* refreeze once milk is *completely* thawed.
- Throw out any leftover mother’s milk within an hour or so once a bottle has been in a baby’s mouth. Don’t save it for a later feeding.

Weaning from a Breast Pump

If a baby had difficulty breastfeeding for days or weeks after birth because of preterm birth or some other reason, a mother may want to *wean* from the breast pump once her baby is breastfeeding well. Some mothers choose to stop pumping for other reasons. It is not a good idea to suddenly stop all pumping, as this may lead to engorgement, plugged milk ducts or a breast infection. Go slowly! It will probably take about 1 to 3 weeks to safely and comfortably decrease milk production. The idea is to remove milk less often and less completely, so the milk left in the breasts “tells” the milk-making cells to gradually decrease or end milk production. (See care plan 12 on page 40 for suggestions.)

Contact a lactation consultant or a breastfeeding support leader with questions about milk expression or to develop an individualized breastfeeding and pumping plan.

5

Breastfeeding and Mother’s Milk for the Premature or Sick Newborn

Mother’s Milk in NICU/SCN

A mother’s own milk is the easiest food for a preterm or sick newborn to digest, and it is *medicine* for the baby. Only breast milk contains disease-fighting factors that help decrease the risk of infection, which is especially important for a preterm or sick baby and means your baby may be able to go home sooner. No modern wisdom and no current technology can make an infant formula that comes close to a mother’s own milk. Whether your plan is to breastfeed when your baby is more mature, or you plan to pump your breasts for baby’s first several weeks or months, your milk is a very precious gift.

It is not always easy to cope with the feelings that can occur after delivering early or giving birth to a sick newborn. It is normal to feel many different emotions. You may feel both happy and excited by the baby’s birth but also feel afraid and sad because the baby needs special care. It may seem as if you are on a roller coaster ride that never ends, so be gentle with yourself. Give yourself time to recover physically, emotionally and spiritually.

Many mothers say that providing their milk for a hospitalized baby helped them with every part of the recovery process, because it gave them one very special thing that only they could do for their babies. It also helped them feel more connected to the baby and the baby’s care. TriHealth Breastfeeding and Lactation Support Services wants your experience to be a positive one. We also want to help you achieve the goal of providing your baby with the wonderful benefits of mother’s milk. If you have questions or concerns about breast pumping or breastfeeding during or after your baby’s stay in the Neonatal Intensive Care Unit (NICU), call Good Samaritan NICU Breastfeeding and Lactation Support at 513-862-7710. If the NICU lactation consultant is unable to return your call within a few hours, leave a message on the Breastfeeding and Lactation Support Services *Warmline* at 513-862-PUMP (7867). For a baby at Bethesda North Special Care Nursery (SCN), call the *Warmline* number listed above, unless the lactation consultant tells you to call the SCN at 513-865-1476.

Begin Pumping Soon after Baby’s Birth

Early, frequent breast pumping acts in place of breastfeeding when a baby is born early or ill, until the baby is ready to breastfeed on his own. Breast pumping releases the milk-making hormone prolactin and removes available milk. Both prolactin and milk removal are important for setting up early milk production, building the amount of milk, and then keeping milk production at a good level.

A healthy, full-term baby will start breastfeeding within an hour of birth and then breastfeed every few hours afterward. So when a baby is in the NICU or SCN and can’t yet breastfeed, a mother should begin to pump her breasts within 6 to 12 hours of the baby’s birth. She should then use the hospital-grade electric breast pump at least 8 times (or more) during every 24 hours.

Your nurse on the Postpartum Unit will help when you begin pumping after the birth of your baby. She should bring a breast pump, which will be on wheels, and a milk collection kit to your room. You can have these items brought to you as soon as you get to your room. She can also:

- Show you how the collection kit pieces fit on the pump
- Go over breast-pumping technique
- Explain how to store the milk so it can be given to your baby
- Go over which collection kit pieces to clean and how to clean them.

Breast-pumping sessions may be discouraging during the first few days after birth, because the lower volumes of the thicker colostrum do not come out as easily. This will change when the volume of milk “comes in.” However, colostrum is high in disease-fighting factors, so *even drops are valuable* for the baby. Ask a nurse to show you how to draw drops or small amounts into a syringe, so your baby does not miss out on any of the colostrum.

It is *very* important to pump the breasts completely and frequently – 8 or more times every 24 hours – even if you get very little during pumping sessions for the first few days after birth. Frequent pumping is important because each pumping session increases prolactin, which leads to getting more milk after the first week. Pumping sessions in the first week help “set the bar” for later milk production. So even if you obtain very little from pumping sessions during the first week or two, *pump often*.

In addition to frequent pumping, studies have found that these strategies also help increase prolactin and lead to obtaining more milk during pumping sessions:

- Double pumping – pumping both breasts at the same time
- Breast massage before and/or during pumping sessions
- Kangaroo mother care, or skin-to-skin contact, with baby.

How to Pump

To obtain as much milk as possible for your baby, follow the directions in care plan 8 on page 36.

Manual (hand) expression of colostrum

Colostrum is the first milk your body produces. It contains very high levels of disease-fighting properties that provide very important protection for premature babies. Colostrum is thicker and sticky compared to mature breast milk, and the breasts make it in small amounts of teaspoons to tablespoons.

It is easy to become frustrated and discouraged if you have difficulty expressing colostrum with the hospital-grade pump. Many mothers find they get more colostrum when they express it by hand. Manual (hand) expression may take practice and patience. It may feel strange to touch breasts this way, but most mothers soon become more comfortable with this technique. Also, many mothers find they get more milk in later weeks when they combine manual expression with breast massage before using the hospital-grade electric breast pump for some or all pumping sessions.

For more information, see care plan 7 on page 35. There are online resources and video clips for these techniques listed in the *Resources* section at the back of the booklet. Go to *Internet Breastfeeding Help* on page 50.

Where to Pump at the Hospital

A hospital-grade electric breast pump is brought to a mother's room for use during her hospital stay. The NICU and SCN also have hospital-grade electric breast pumps located in breastfeeding/pumping rooms. These are for a mother to use when she visits her baby. Breast pumps are on wheels, and many mothers find they obtain more milk when they pump at the baby's bedside. You may rest in a lounge chair when pumping at the baby's bedside. There also is a lounge area outside the NICU and the SCN.

Take all of the pieces of the pump collection kit to the NICU or SCN, so pumping sessions aren't missed during time spent with one's baby. Some mothers buy an extra collection kit just for trips to visit the baby in the NICU/SCN after mother's discharge.

Special Program: The Gift of Donor Milk

A premature or sick newborn may be ready to begin feeding before a mother has stored enough breast milk. The NICU at Good Samaritan Hospital has a Donor Milk Program for preterm babies who weighed less than 1,500 grams at birth. Donor milk is used only until a mother's own milk comes in

and can be provided. Research has shown that premature babies have fewer infections when they receive mother's own or donor breast milk. Giving infant formula to a low-birth-weight baby is a risk our doctors would rather not take, if possible, in the beginning.

Women who donate their milk are mothers like you. Many of them have experienced the birth of a preterm baby and want to share the gift of breast milk. They are not paid for their milk, and each mother is screened to make sure her milk is safe for your baby. The milk from many screened donors is combined and heat-treated to further ensure its safety. Donor milk is not given to a baby unless a doctor, nurse or lactation consultant has discussed the program with the baby's parent(s) and obtained written consent.

Preparing for Discharge from the Hospital

A hospital-grade electric breast pump, such as the one used on the hospital Postpartum Unit, may be rented for use at home. Lactation consultants strongly recommend a rental hospital-grade breast pump for a mother who depends on a breast pump to set up and then keep milk production at a good level. For more detail, see *Types of Breast Pumps* on page 14.

Arrange to rent a pump before discharge from the Postpartum Unit. Breast pumps may be rented through TriHealth Breastfeeding and Lactation Support Services by calling 513-862-PUMP (7867); follow the prompt for breast pump rental/retail options. Other breast pump rental stations in the area are listed in the Resources section of this booklet under *Medela® Breast Pump Rental and Sales in Greater Cincinnati*, page 47.

Will the Breast Pump I Have Work as Well as the Hospital Pump?

A breast pump bought at a baby store, department store, pharmacy or online retailer is often referred to as a *personal* pump and such pumps are not hospital-grade breast pumps. Personal pumps were designed for the mother who already has good milk production and needs to pump at work or school or for occasional times away from a baby. Even the best personal pumps were not made for around-the-clock pumping or for days to weeks at a time, so a mother who uses a personal pump may not make as much milk as her growing baby needs.

A rental hospital-grade electric breast pump is the type recommended for the frequent pumping needed by a mother with a premature or sick newborn. Only a rental pump was made for round-the-clock, long-term use. The motor of a rental pump is stronger and lasts longer than those of personal pumps. It is also

a *closed system*, so that particles in the environment, such as bacteria or viruses, are less likely to enter. Personal pumps are more *open* to contact with the environment.

Most mothers get more milk in less time when using a rental breast pump. When pumping sessions take less time, a mother is better able to fit 8 or more pumping sessions into every 24-hour period. More frequent pumping sessions mean more release of the milk-making hormone prolactin and better emptying of the breasts, which together mean making more milk.

Does Health Care Insurance, Medicaid or WIC Cover Pump Rental Fees?

Many insurers cover all or part of the pump rental fee when it is to benefit a preterm or sick newborn. Whether health care coverage is through a private insurer or a Medicaid-related company, you must contact the health care insurer to see if the company covers breast pump rental fees. Tell them you are separated from the baby due to prematurity or illness.

Some insurance companies or those handling medical card/Medicaid rentals may ask:

- For a Letter of Medical Necessity and a doctor's order for the rental of a hospital-grade breast pump. (Usually insurance providers want the order to come from the mother's obstetrician or midwife.) A lactation consultant can give you the forms.
- That rental fees be paid directly by the parents, who then submit the bill to the insurer.
- That the breast pump be rented from certain rental station(s) in the area.
- For a deposit, which is returned when the pump is brought back. This is more likely when the cost for the rental is being covered through a medical card/Medicaid or coverage is through a related company.

Those eligible for WIC may be able to obtain a hospital-grade electric breast pump through that agency. Call your local WIC office to see if this service is available. If requested by WIC, a lactation consultant should be able to give you any needed paper work. The WIC office may need a deposit for the loan of a hospital-grade electric breast pump.

Before Discharge

As you prepare for your discharge from the hospital, you will want to:

1. Make arrangements to rent a hospital-grade electric breast pump.
2. Check with your health care insurance company to learn whether it covers the cost of breast pump rental when a newborn is born preterm or ill. Ask what type of paperwork is needed when coverage is provided.
3. Remember to take ALL pieces of the pump collection kit with you when you are discharged or the rental pump will not work.

Pumping at Home**Where to Pump**

The rental pump should be kept where it will be easy to use. The pump may need to be moved for day and night use, especially after a cesarean section or if the bedroom is on a different level of your home. You may want to turn the phone down (or off) and place a *Do Not Disturb* sign on your front door when you are pumping or resting.

When to Pump

Continue to pump *at least* 8 times in 24 hours. Follow the routine suggested in care plan 8 on page 36. However, talk to a lactation consultant if you have difficulty with the routine given in the care plan. The lactation consultant will have more ideas for fitting pumping sessions into your life so you can obtain enough milk.

If you become engorged when the volume of milk comes in, read the *Breast Engorgement* information on page 11. (Also see care plan 14 on page 42.)

How to Establish, Maintain or Increase Good Milk Production**Pump often enough**

Pumping at least 8 (or more) times in 24 hours is *most* important for starting and maintaining good milk production or increasing lower milk production. A normal, full-term newborn breastfeeds at least 8 and up to 12 times in 24 hours. (It may be more often on some days.) The number of breast pumping sessions should copy the number of times a full-term baby breastfeeds.

5. BREASTFEEDING AND MOTHER'S MILK FOR THE PREMATURE OR SICK NEWBORN

When regularly pumping 8 or more times in 24 hours, most mothers pump out at *least* 600 ml (20 oz) by 10 to 14 days after the baby's birth. Research has placed a mother's milk production when breast pumping into the following categories:

Ideal: More than 750 ml (25 oz) per 24 hours

Borderline: 350-500 ml (11.5 to 16.5 oz) per 24 hours

Low (milk production at risk): Less than 350 ml (11.5 oz) per 24 hours.

A mother may make more milk than her baby needs, but it is important to continue to pump frequently. Extra milk may be saved and used later.

A mother's life is busy after she is discharged from the hospital. In addition to recuperating from birth and caring for her household, she must travel back and forth from the hospital to spend time with her baby in the NICU or SCN. This may lead to delayed or missed pumping sessions, which can then lead to a decrease in milk production. Unfortunately, it may take a few days before the mother notices she is getting less and less milk.

Keep track of pumping sessions

A mother is less likely to miss a daily pumping session when she uses a diary or checklist chart to keep a written record of pumping sessions. Counting sessions on paper each day really helps to stay on track until her baby is breastfeeding well or she is ready to wean from the pump. There is a pumping record on page 52.

Using a rented hospital-grade electric breast pump with a properly fitted, double collection kit helps a mother keep making enough milk. Pumping both breasts at the same time boosts the hormone prolactin, so double pumping leads to getting more milk. Mothers also report they get more milk and feel more comfortable when the collection kit piece that goes over the nipple and areola area fits correctly.

Take care of the breast pump

Certain pieces of the breast pump collection kit need regular washing, but other pieces should not be washed. A breast pump is a machine and it may occasionally develop a mechanical problem. It also cannot work well if the collection kit pieces aren't attached correctly. Talk to the lactation consultant if you have a question or concern about the breast pump or collection kit. See care plan 10 on page 38.

Take Care of Yourself

Getting enough rest may be difficult both in the hospital and after discharge. Yet *rest is helpful* for making milk. Take advantage of pumping sessions to prop your feet up and relax, whether you're home or visiting the baby in the hospital. Turn the phone ringer down or off. Place a "Mom resting – Do not disturb" sign on your door. When you pump more frequently during the day,

you may be able to take a 4- to 6-hour break for uninterrupted sleep during the night. Have the breast pump set up when you go to bed at night, so it is ready to use when you wake on your own during the night. It may be necessary to wake in 3 to 4 hours if milk production is low or borderline.

Mothers often ask if there are any *medications or herbs* that help increase milk production. Herbs usually are not recommended when pumping for a baby in the NICU or SCN, because these preparations are not standardized or regulated. Speak with the lactation consultant if you regularly pump 8 or more times in 24 hours for 2 weeks, but milk production remains *low* or *borderline*. Nothing replaces frequent milk removal through pumping.

Take medications prescribed by your doctor, including *pain medication* after a cesarean birth. A mother is less likely to pump often if she's in pain, but many mothers fear taking pain medications. They worry it may harm the baby. The amount of most pain medication that gets into pumped milk is considered safe, and most mothers do not need strong pain medication after the first few days postpartum. Be sure each of your doctors is aware that you are providing your milk for your baby. If you ever have a question about a medication, talk to your baby's doctor or nurse, and the lactation consultant.

Mothers also ask whether there are certain *foods* that can help make more milk, but there is no special diet or set of rules to follow. A healthy diet helps a mother recover from birth and gives her the energy needed for pumping and caring for her baby in the NICU or SCN and when baby comes home. For more on mother's diet, see *Frequently Asked Questions* on page 25.

Do what you can to *decrease stress*. That may seem difficult, but lowering stress in other areas of life can help a mother cope better with the stress of having a baby in the NICU/SCN and pumping milk for the baby. Actions that often help include:

- a warm bath or shower
- brief power naps
- deep breathing
- yoga or other exercise
- meditation
- journaling
- massage
- soothing music
- visual imagery, such as visualizing a stream and waterfall during pumping sessions or imagining your milk as it makes your baby strong and healthy.

5. BREASTFEEDING AND MOTHER'S MILK FOR THE PREMATURE OR SICK NEWBORN

Eliminate unnecessary stress by doing only what you must. Let family and friends help by driving you to and from the hospital to see the baby, bringing meals for your family, doing household tasks, handling loads of laundry, caring for an older child and so on. When you bring the baby home, you will still need others' help while you care for the baby, continue to pump and spend time letting the baby learn to breastfeed.

Acknowledge your emotions, at least to yourself, and give yourself permission to feel however you do from moment to moment. Cry when you need to cry, scream when you need to scream, and laugh when you need to laugh. There is no right or wrong way to feel when your baby is in the NICU/SCN or after you take your baby home. It is important to accept your emotions, let yourself feel all of them, and share your feelings with those who are close to you.

The *baby blues* are common for a week or two after a baby's birth. Talk to someone about them, such as your doctor, your baby's nurse or a lactation consultant if such feelings last longer than 2 weeks. When still feeling blue after 2 weeks, it may be a sign of postpartum depression. A woman is more likely to experience postpartum depression after having a preterm or sick baby than after giving birth to a full-term newborn. If you think you may have postpartum depression or you're concerned that you aren't feeling quite "right" for you, trust your feelings. Ask your nurse or lactation consultant for information about taking TriHealth's brief self-test for those who may be experiencing postpartum depression. TriHealth also has a support group for mothers, *Ray of Hope*, and information is available at 513-862-3343.

If Milk Production is Low

There is nothing more frustrating than to start and stick with the recommended pumping routine yet still experience low milk production. If you find yourself in this situation, know that being a loving mother does not depend on the amount of milk a mother gets with pumping. Your baby will benefit from any amount you make, since some mother's milk is always better than no mother's milk. During this stressful time, you should feel good that you are doing as much as you can to provide your milk.

If you are having difficulty making enough milk and you are using the suggestions already listed above, discuss the following ideas for increasing milk volume with your baby's nurse or a lactation consultant in the NICU/SCN.

- Consider trying a different breast pump. Every woman is different, so a different type of hospital-grade pump may work better for some mothers.

- Stop and repeat breast massage in the middle of a pumping session, which often leads to another milk *letdown*. After 7 to 10 minutes of pumping (when a steady flow or dripping becomes barely a drip), turn the pump off, massage both breasts, and then begin to pump again.
- At the end of a session, continue to pump for 2 minutes after the milk completely stops dripping. If milk continues to drip steadily, stop at 30 minutes.
- Some mothers find that a daily *power-pumping* session helps increase milk volume. During a power pumping session, begin by pumping for about 10 minutes; stop pumping for 10 minutes; pump again for 10 minutes. Keep doing this 10-minute on-and-off pumping for an hour. After a power pumping session, return to your usual pumping routine. Power pumping is usually done once a day, but some mothers power-pump twice a day.
- Frequency and completeness of milk removal are both important for milk production. If you find you sometimes miss a pumping session because you simply don't have 10 to 30 minutes to pump when a session is due, pump for the minutes you do have but then stay on your usual pumping routine. A few minutes of pumping are better than no minutes of pumping. Make up the missed minutes later with another few minutes of pumping, but do your best to avoid delaying or missing pumping sessions.
- Kangaroo Mother Care (KMC), both in the hospital and at home after baby's discharge, helps to increase milk volume. Research has shown that KMC may increase the amount of milk a mother gets by up to 50 percent, because KMC leads to the release of the breastfeeding hormones. See page 23 for more on KMC.
- There are some medications that may help a mother who has low milk production despite regularly pumping 8 or more times in 24 hours. A lactation consultant can provide you with information to discuss with your doctor.

Help – I Want to Stop Pumping!

Every mother who has pumped for a baby in the NICU/SCN has wanted to stop at one time or another. Pumping requires a lot of energy and it is a big commitment. It is normal to become overwhelmed at times. If the pumping sessions sometimes seem to be too much, take a deep breath and try to relax.

When such feelings hit, give yourself another 24 hours before making a decision about whether to continue to pump or not. Take a small break and get some sleep, preferably a stretch of 4 to 6 hours. It's amazing how sleep can make a difference in feelings!

Reach out for support! Call or page the lactation consultant immediately at 513-862-7867. Talk to another mother in the NICU or SCN who is pumping or to your baby's nurse. Sometimes just talking about your emotions and concerns can help when feeling overwhelmed. Try this exercise if pumping seems too much:

- Slowly breathe in and out through your mouth. With each breath, relax your body more deeply.
- Look at a photo of your baby or try to picture the baby in your mind. See your baby's eyes, nose and mouth. See your baby's tiny hands and feet.
- Remember how hard your baby is working, and gently remind yourself that your milk is a gift only you can give. Your milk protects your baby from infection. Your milk helps your baby's belly mature. Your milk is easy for your baby to digest. Your milk is like medicine for your baby. Your milk is the perfect food for your baby.
- Continue to breathe slowly and relax.
- Make a commitment to pump for another day while thinking of your baby.
- Repeat each day as needed.

You are not alone. We are here to help you continue to provide your milk for your baby.

Baby Steps to Breastfeeding

Learning to breastfeed is different for a premature baby compared with a full-term baby. Even many full-term babies need several days to learn to breastfeed well after birth, but it is more difficult for a premature baby to coordinate breathing with sucking and swallowing during a feeding. The parts of the preterm baby's mouth are not as developed as a full-term baby's mouth, so it may be difficult for the premature baby to latch on well or breastfeed long enough to get the amount of milk needed to grow. Preterm babies tend to be sleepier, so they may not wake often enough or stay awake long enough to breastfeed well yet. As the preterm baby grows and gets a bit older, the parts of the baby's mouth, the strength of the tongue and the ability to latch on and suck long enough will improve.

As you and your baby work together on breastfeeding, some of the goals we consider important are to help you:

- Build good milk production
- Form a strong attachment with your baby
- Move through the steps that lead to direct breastfeeding
- Become confident about breastfeeding as your baby grows.

You may have wanted only to breastfeed your baby and avoid using a feeding bottle or pacifier. This may not be possible with a premature or sick baby. A pacifier helps soothe a preterm or ill baby and lets this baby practice skills needed for feeding. A preterm baby can get more milk out of a feeding bottle because of the way a feeding-bottle works – not because bottle-feeding is “easier” for the baby's system. Actually, research shows that most preterm babies have better heart and breathing rates when breastfeeding. They just can't take in enough milk yet. The full-term baby's mouth and brain are born to be breastfed, and as a preterm baby grows, matures and becomes stronger, he or she becomes ready, willing and able to remove milk well during breastfeeding.

Until a baby is able to breastfeed well, the first goal is to build good milk production by pumping. A mother must *continue to pump* often until her baby is able to remove milk well during all breastfeedings. The second goal is to *start to breastfeed* as soon as possible, which should be while your baby is in the hospital and may be receiving most feedings by a tube or a bottle. According to research, premature babies move to good breastfeeding after discharge when they've had the chance to breastfeed early and often during the NICU or SCN stay.

Learning Baby's Cues

No matter how premature or ill a baby is, that baby is constantly communicating. Forming an attachment and breastfeeding are both about learning to understand what the baby is trying to say. A baby can't use words, so the baby communicates through behavior *cues*. Learning to read a baby's cues can help a parent feel more connected and better able to meet the baby's needs. A baby's cues show when he or she is calm, organized and ready to interact, and other cues let a parent know when the baby is stressed, disorganized and not able to interact. There also are cues that indicate a baby is ready for feeding, just as there are cues that show a baby needs to be calmed first. As a baby matures, stress cues and disorganized behaviors decrease.

As you get to know your baby, NICU staff will point out different cues, explain their meaning and show you ways to calm a stressed baby. Never be afraid to ask for help during the learning process. Also, you know your baby best, so never feel afraid to let staff know if you think your baby's cues indicate his needs aren't being met.

Levels in Breastfeeding Progress

Preterm babies usually move through several levels on the way to breastfeeding well and each makes progress at his own pace. Most babies are discharged from the NICU or SCN before they are able to fully breastfeed, so you will have to continue to work on breastfeeding once your baby is home. And, for several reasons, former premature babies often need extra time to learn to breastfeed well. Still, most will become good breastfeeders with time and plenty of practice. A TriHealth outpatient lactation consultant can continue to work with you and your baby until you reach your breastfeeding goals.

The most typical steps or levels toward full breastfeeding that you and baby will work on in the hospital include:

Level 1: Pre-feeding (nuzzling)

Level 2: Early feeding (attach/latch to breast; brief breastfeeding)

Level 3: Skill building (increasing endurance and milk intake)

Level 4: Transition (good milk removal during typical breastfeeding).

Preparing for Each Level of Breastfeeding

Preterm babies often move from one level of breastfeeding to the next step during skin-to-skin *Kangaroo Mother Care* (KMC) time. During KMC, you hold your baby between your breasts, skin-to-skin. Your chest is the best possible place for your baby. Your baby already knows your voice, the sound of your heart-beat and your warmth, and she soon learns that your smell and touch is different from that of others. Many studies have found that a premature or sick newborn has more stable breathing, heart and temperature rates when doing KMC. Getting good sleep is an issue for babies in the NICU or SCN, and sleep is better during KMC. Also, a baby exposes a mother to the NICU/SCN environment during KMC, and the mother's body responds by producing disease-fighting factors specific to that NICU/SCN environment. These factors then pass into the mother's milk to help protect the baby. And, as mentioned earlier, when a mother and baby enjoy KMC on a regular basis, research has shown that the amount of milk a mother gets during pumping can increase by 50 percent. In addition, KMC gives the baby a chance to use her instincts for breastfeeding.

Level 1: Pre-feeding

Pre-feeding behavior often takes the form of nuzzling, which is snuggling closely to mother and rooting against her chest with his nose or mouth. It is part of the feeding learning experience for both baby and mother. Think of it as a *practice* breastfeeding. It is also a time to be close to the baby. Nuzzling occurs during KMC, but the baby usually is placed in a breastfeeding hold

rather than being held between mother's breasts. Because a baby can do whatever seems natural during nuzzling, the baby can enjoy being at breast but with no pressure to eat.

To prepare for nuzzling, pump your breasts first. If the baby does attach (latch), the breast will be “empty” so the baby will not have to deal with too much milk yet. The nurse or lactation consultant may also help you make your baby feel more comfortable and secure during nuzzling by:

- Swaddling her in a blanket from the waist down
- Positioning her so that her arms and legs are more flexed (bent)
- Moving her slowly from the crib to where you are seated
- Turning down the lights
- Keeping the area quiet, including asking others to use low voices or to not talk.

Positioning is an important part of comfort during breastfeeding for both the baby and the mother. Read the descriptions and look at the pictures in *Settling Down to Breastfeed: Getting into Position* on pages 3 to 5 of this booklet. The two positions or holds that tend to work better when breastfeeding a preterm baby are the football (clutch) and cross-cradle holds. Your baby's nurse or the lactation consultant will help you adjust these holds so they work for you and your premature baby. A preterm baby may latch onto the breast during the first nuzzling experience, or she may need a number of sessions before she latches. The first time a preterm baby latches often comes as a surprise, so be prepared by reading *Baby's Latch and Mother's Nipples* on page 6. (Later topics in section 2 address breastfeeding a full-term baby. You may want to read them now or you may read them later as the baby's breastfeeding improves.)

Level 2: Early feeding and Level 3: Skill building

Expect some overlap in levels 2 and 3. The premature baby who latches may surprise his mother and begin to suck during some or most practice breastfeedings. Gradually, but sometimes quite suddenly, the baby will breastfeed longer, and his suck may seem stronger for some or most breastfeedings.

A young baby does two types of sucking – non-nutritive sucking and nutritive sucking. By learning the kind of mouth movements that go with each type, you will know when your baby is removing milk from the breast during a breastfeeding.

Non-nutritive sucking develops first, and it helps a baby calm himself. When a baby is doing non-nutritive sucking, movement is seen more in the front of the baby's mouth and the jaw moves very little. Non-nutritive sucking does not remove milk from the breast or a bottle, so the baby who is able to suck non-nutritively on a pacifier may not yet be ready to breastfeed or bottle-feed.

5. BREASTFEEDING AND MOTHER'S MILK FOR THE PREMATURE OR SICK NEWBORN

Milk is removed from the breast (or feeding bottle) during *nutritive* sucking. This type of sucking usually begins to develop at about 34 weeks gestation as the baby begins to put sucking and swallowing together with breathing. During nutritive sucking, movement is seen more in the baby's jaw as it drops down then up, down then up, and so on, and soft swallows and gulping can be heard at times. Most preterm babies cannot keep nutritive sucking long enough during breastfeeding to remove enough milk. Most will still need to take in extra milk by tube or bottle.

The baby's ability to take in enough milk with breastfeeding so that extra milk is not needed will improve as the baby matures. When baby seems to breastfeed fairly well, the lactation consultant or a nurse may suggest *test-weighing* to check how much milk the baby removed during a breastfeeding. Using a very accurate scale, the lactation consultant or nurse weighs the baby just before breastfeeding and then weighs the baby again just after breastfeeding. The difference in the baby's weights is how much milk the baby removed from the breast during the feeding.

The lactation consultant or your baby's nurse may suggest using a *nipple shield* during breastfeeding. This breastfeeding aid has been found to help premature babies latch on (and stay latched on) to the breast, remove more milk, and keep breastfeeding longer without tiring. The lactation consultant or nurse will show you how to use it correctly.

You may find care plan 3 on page 31 or care plan 5 on page 33 helpful when your baby is at levels 2 and 3.

Level 4: Transition

Expect your preterm baby to be home for several weeks before he breastfeeds well enough so that little or no extra milk is needed from a feeding bottle. Don't be surprised if your baby is about 44 to 46 weeks gestational age before being able to remove milk well for all feedings.

Sometimes a baby is ready for full or almost full breastfeeding before his mother, especially when a mother is uncertain whether her baby is removing enough milk during breastfeeding. Some mothers rent a sensitive scale so they can test-weigh their baby after discharge. This helps them work with the baby's pediatrician to figure out when the baby is ready to transition to breastfeeding with little or no extra milk. This type of scale is available for rent from TriHealth Breastfeeding and Lactation

Support Services at 513-862-PUMP (7867). Follow the prompt for breast pump rental/retail options. Other rental stations in the area are included in the *Resources* section under *Medela® Breast Pump Rental and Sales in Greater Cincinnati* on page 47.

Signs that a baby now removes milk well during breastfeeding are included in care plan 1 on page 29. Continue to work with the pediatric care provider and a lactation consultant until you and they are confident that breastfeeding is going well. The Breastfeeding and Lactation Support staff at Good Samaritan NICU, 513-862-7710, or Bethesda North Special Care Nursery, 513-865-1476, will let you know when they think you and your baby are ready to use the TriHealth Breastfeeding and Lactation Support Services *Warmline*, 513-862-PUMP (7867), for common breastfeeding questions and concerns.

6

Frequently Asked Questions

Is it possible to breastfeed twins (or triplets or more)?

Mothers can and do breastfeed twins, triplets and higher multiples. Some pump their milk for one or more of a set of multiples, especially when babies are born prematurely or any of the babies has an issue that interferes with learning to breastfeed. Still other mothers combine breastfeeding with expressed milk or formula if extra mother's milk is not available.

A mother of twins or more needs extra help with household tasks and baby care whether her babies breastfeed or receive expressed mother's milk. It is important for this mother to develop a support network of relatives and friends. Also, most look for other breastfeeding mothers of multiples who have "been there and done that." Additional information for mothers of multiples is included in *Selected Reading* under *Special Breastfeeding Situations* on page 49. La Leche League leaders often know of breastfeeding mothers of twins and triplets in an area.

Are there foods I should or should not eat while breastfeeding?

All around the world women are breastfeeding babies. Although diets may be quite different from country to country, these women do a very good job of both breastfeeding and producing milk. Breastfeeding mothers can eat most foods without worry that so-called gassy or spicy foods will bother the baby. There's usually no need to limit food choices unless a baby often becomes fussy within a few hours of mother eating a particular food. If a family has a history of allergies on either the mother's or the father's side of the family, a baby may be sensitive to certain foods passing into the mother's milk. Talk with the baby's pediatric care provider to learn if there are certain highly allergic foods to avoid because of the family allergy history.

Eating a perfect diet is not necessary for making enough milk; however, a new mother will feel better and recover more quickly from the demands of pregnancy, birth and milk making when most of the foods she eats are good ones. Ask your health care provider about whether to continue taking a prenatal or some other type of vitamin and mineral supplement during the early months of breastfeeding.

There are a few nutrients to pay attention to when breastfeeding. One of these is the fat in the diet. The milk-producing alveoli take what is needed from a mother's body to make milk and, although the total amount of fat in the milk stays about the same, the kind of fat in the milk depends on the kind of fat a mother eats. When a mother eats "good" fats, such as the fat in olive oil or avocado, the milk has more "good" fat in it. If her diet includes a lot of trans fats, such as those in processed foods, the milk will have more trans fat in it. Certain vitamins also may be lower in a mother's milk if her diet is low in that vitamin. For example, a mother may need to take extra vitamin B-12 if she is on a vegan diet, because this type of diet is often low in vitamin B-12.

Many women enjoy sushi, which they may continue to eat when breastfeeding. Some experts recommend purchasing sushi fresh and from a reputable source. Also, a breastfeeding woman may want to limit the amount she eats of certain fish, such as shark, swordfish, tilefish and mackerel, as these have higher levels of mercury.

Don't ignore thirst. Drink enough fluid to quench thirst, but there is no set amount of liquid a woman should drink when breastfeeding. Drinking lots of liquid does not equal making lots of milk – and you don't have to drink another animal's milk to make your own milk! When getting enough liquid, a mother's urine is a pale yellow color. A dark yellow color may mean she needs more fluid; urine that is clear like water may mean a mother is actually drinking too much fluid.

What about dieting and weight loss while breastfeeding?

Most women are hungrier and thirstier during the early months of breastfeeding, which makes sense since making milk burns several hundred calories a day. Some new mothers find breastfeeding helps them lose extra pregnancy pounds, but this is not true for all. Studies show that dieting can be safe if a woman waits about 6 to 8 weeks after birth to give her body time to recover. To continue making enough milk when dieting, a breastfeeding mother needs to eat at least 1,500 to 1,800 calories per day, and she should limit weight loss to less than 1.5 pounds a week. (Losing weight too quickly may have a negative effect on mother's health and possibly on milk production.) Not surprisingly, combining diet with exercise, such as taking long brisk walks with baby in a sling or stroller, is shown to result in longer-lasting weight loss.

6. FREQUENTLY ASKED QUESTIONS

Is caffeine or alcohol permitted while breastfeeding?

Most breastfeeding women can enjoy one or two cups of coffee or tea, or a soft drink or two, without the *caffeine* bothering a baby. The same is true when one has a little chocolate or another food containing a compound similar to caffeine. However, a young baby's body can't eliminate caffeine as quickly as an adult. Too much may build up in baby's system, causing her to act fussy, so moderation is advised.

Alcohol passes into mother's milk, and drinking too much or drinking too quickly can be harmful if a mother becomes intoxicated and a baby continues to breastfeed. (An intoxicated parent cannot safely care for a baby no matter how that baby is fed.) Drinking one or two alcoholic beverages over several hours is not usually a problem; however, talk to your doctor or your baby's health care provider about when it may be better to "pump and dump," and for how long to do it, if concerned about alcohol intake during breastfeeding.

What about medications?

Most *medications, over-the-counter (OTC), prescription and illegal or street drugs* enter the milk in some amount. However, the amount that passes into milk varies a lot, and its presence in the milk does not mean the baby's body will absorb it. When a health care professional recommends weaning or pumping-and-dumping because a mother needs to take a medication, weigh the baby's risks of not receiving the disease-fighting properties in mother's milk with a possible risk from the particular medication. Also, for most health conditions there are medications that can be taken while a mother continues to breastfeed or pump her milk. If you must take medication, remind your doctor that you are breastfeeding or pumping for your baby. For any questions or concerns about a medication, talk to the baby's pediatric care provider and a lactation consultant.

Most *illegal substances, or street drugs*, pass easily and quickly into mother's milk, and most are absorbed by the baby in amounts that can be harmful. These drugs should be avoided at all times. Not only can they hurt a baby through the milk, but also a mother cannot take good care of a baby or young child when taking such drugs.

What if I smoke?

Breastfeeding and mother's milk are better for a baby than formula, even if a mother smokes cigarettes or uses other forms of tobacco. Because the harmful chemicals in tobacco pass quickly into mother's milk and are at higher levels immediately after using tobacco products, a mother should breastfeed first and then go outside to smoke. This allows time for harmful chemicals to drop before the baby's next feeding.

The more a mother smokes, the more difficult it will be to keep low levels in the milk. When a mother smokes too much, it may cause a baby to become fussier, and milk production may decrease. Also, the amount of fat and certain vitamins may decrease, so a baby may not gain weight properly.

No matter how a baby is fed, exposure to *secondhand smoke* is harmful. No one should ever smoke inside the home or near a baby or child. Babies/children having one or both parents who smoke are much more likely to suffer from ear infections, colds and lung problems, are more at risk for Sudden Infant Death Syndrome (SIDS), and are more likely to become smokers as teens and adults. For help or information about smoking cessation programs, speak with a lactation consultant or your health care provider.

Do I really need a nursing bra?

A nursing bra has openings that may make it easier to breastfeed a baby, and often these bras are made of materials that stretch when milk production is higher. However, a nursing bra is not essential. If you use a nursing bra, purchase it later in pregnancy when the breasts may be closer to the size they will be when breastfeeding. A good nursing bra should fit well but also have room for expansion. Any elastic or an underwire should be back against the rib cage and not touching or putting pressure on the breast itself. Breastfeeding and Lactation Support Services at Bethesda North Hospital carries a few styles of nursing bras, and the staff includes certified bra fitters. For an appointment, call 513-862-7867 and follow the voice prompts for the Bethesda North retail.

Is it okay to give my baby a pacifier?

According to several studies of full-term babies, pacifier use can lead to early weaning from the breast. Not all babies are interested in a pacifier, and an uninterested baby should not be forced to take one. Some mothers are concerned when a baby likes to pacify at the breast, but it is fine to do so and it often increases milk production. A pacifier should *not* be used to make a baby wait a certain number of hours between breastfeedings in order to get on a schedule. It's normal for breastfed babies to sometimes feed more frequently, so breastfeed before offering a pacifier to make sure the baby gets enough to eat. Watch baby's diaper counts and weight gain. If a baby's weight gain slows or mother's nipples become sore after introducing a pacifier, stop using it for a while.

6. FREQUENTLY ASKED QUESTIONS

What about giving my baby a "relief" bottle?

As with a pacifier, supplementary feeding is linked to early weaning from the breast. Unless there's a medical reason, it is better to wait several weeks before introducing a bottle so that breastfeeding and milk production get off to a good start. Although there may be many reasons for offering an occasional *relief* feeding, there is no need to ever offer a supplementary feeding when a baby breastfeeds well. To keep the breasts and the baby in the best milk-making balance, limit the number of and amount in any relief or supplementary feedings. When possible, breastfeed the baby first and then let someone offer a small amount of mother's own milk (or formula if mom's milk is not available). To keep milk production up, express (pump) milk whenever a supplementary feeding is given instead of a breast-feeding.

Giving supplementary feedings because of a medical reason or when a mother must return to work is different than giving a relief feeding. For more information on such situations, see sections 3, 4 or 5 and read the care plans referenced in those sections.

When should I think about weaning?

Weaning is a process – not an event – and it begins the first time a baby receives something other than his mother's milk. The American Academy of Pediatrics recommends exclusive breastfeeding (human milk feeding) for a baby's first 6 months with continued breastfeeding for *at least* 1 year and longer based on what baby and mother want. (The World Health Organization recommends continued breastfeeding along with other foods for at least 2 years.)

At some point around 6 months, a baby lets his mother know that he is ready to experiment with a small amount of solid food. Mother's milk remains the baby's major source of nutrition during the first year as more foods are gradually added to the baby's diet. Breastfeeding can continue long after baby's first birthday – it can continue for as long as it is right for you, your baby and the family. Mother's milk continues to provide important nutrients and disease-fighting properties through toddler years. When weaning occurs more slowly, it is more comfortable physically and emotionally for mother and baby. The baby/toddler may set the pace of weaning, mother may do it, or it may be a bit of both. There are no rules for this process!

What if I have a breastfeeding question or concern that is not covered in this booklet?

A mother may contact a lactation consultant with TriHealth Breastfeeding and Lactation Support Services *Warmline*, 513-862-PUMP (7867) or a breastfeeding support leader for breastfeeding/lactation questions or concerns at any time during the period she breastfeeds or pumps milk for her baby. For any medical issue, also call the baby's pediatric care provider.

If a baby is in the NICU or SCN or was recently discharged from either of those units, call the baby's pediatric care provider and a lactation consultant with breastfeeding/lactation questions or concerns. The number for Good Samaritan NICU Breastfeeding and Lactation Support staff is 513-862-7710, and the number for Bethesda North Special Care Nursery Breastfeeding and Lactation Support staff is 513-865-1476. The NICU/SCN lactation consultant will let you know when to use the general TriHealth Breastfeeding and Lactation Support Services *Warmline*, 513-862-PUMP (7867).



Individualized Care Plans

The following pages include individualized care plans related to breastfeeding, milk production or breast care. Your lactation consultant or nurse will review the appropriate plan with you. **Once you are home with your infant, you may need to make a change in your care plan. To stay in touch with a TriHealth lactation consultant after you/your baby leave the hospital, call 513-862-PUMP (7867), press 3 and leave a message.**

Breastfeeding-Related (Mother-Baby) Care Plans

1. Breastfeeding the Healthy, Full-Term Newborn
2. The Full-Term Baby Who is Not Yet Breastfeeding Well
3. Breastfeeding the Late Preterm Baby (34 to 37 weeks)
4. Breastfeeding the Tongue-Tied Infant
5. Breastfeeding with a Nipple Shield
6. *Baby's Intake and Output Record of Feedings and Diaper Changes*

Milk Production/Lactation-Related Care Plans

7. Manual (Hand) Expression of Milk
8. Establishing Milk Production with a Hospital-Grade Electric Breast Pump
9. Storing Breast Milk for a Baby in the NICU/SCN
10. Breast Pump Issues
11. Supporting Breastfeeding if a Newborn is Supplemented by Bottle
12. Weaning from a Breast Pump
13. *Pumping Record*

Breast-Related Care Plans

14. Breast Engorgement
15. Sore or Damaged Nipples
16. Flat or Inverted Nipples
17. Plugged Milk Ducts and Mastitis
18. Overproduction and Overactive Letdown

1. Breastfeeding the Healthy, Full-Term Newborn

Care plan goals

- Know when the baby is breastfeeding well.
- Establish good milk production.

Signs that breastfeeding is going well are when a baby

- Wakes up on his own to feed *at least* 8 to 12 times in 24 hours
- Latches deeply onto the breast without discomfort or pain for you
- Spends *at least* 10 to 20 minutes actively sucking at the first breast
- Moves his jaw down and up with each suck
- Swallows so that it can be seen and heard once the volume of milk “comes in”
- Wets *at least* 6 diapers
- Passes *at least* 4 stools in 24 hours by the end of the first week
- Gains *at least* 2/3 ounce (20 gm) in 24 hours by the end of the first week
- Continues this pattern for at least the first 4 to 6 weeks after birth.

Suggestions for effective breastfeeding with the healthy, full-term newborn

- Offer the breast whenever the baby shows feeding cues.
- Position yourself and the baby comfortably for feeding.
- Obtain an immediate, deep latch when the baby opens his mouth wide.
- Use *breast compressions* when the baby has a long pause without sucking. (Move downward on the breast with your thumb to move milk into the baby's mouth.)
- Let the baby decide when to let go of the breast (usually takes 10 to 30 minutes).
- Avoid using a pacifier or giving a bottle for *at least* 2 to 3 weeks after birth (and longer) if possible.

After the first week

Speak with your doctor or your baby's doctor and a lactation consultant if in 24 hours:

- Your baby is not breastfeeding 8 or more times and for more than 10 minutes.
- Your baby is not having enough wet or stool diapers.
- You still have nipple/breast pain or skin damage related to breastfeeding.
- You feel discomfort with any aspect of breastfeeding your baby.

For more detailed information, see *The Basics of Breastfeeding* on page 3.

2. The Full-Term Baby Who is Not Yet Breastfeeding Well

Care plan goals

- Support and encourage baby to breastfeed.
- Supplement with expressed breast milk (or formula when needed) until the baby wakes more and breastfeeds well.
- Build and maintain milk production (supply) if baby is not yet able.

Suggestions for feeding the sleepy baby

- Use *Ideas for waking a sleepy baby* on page 9.
- Place the baby skin-to-skin between your breasts about 15 to 30 minutes before an expected feeding time. (Pull a sheet or blanket over both of you.)
- Spend 10 to 15 minutes trying to breastfeed. You may need to rub the baby's arm or move the baby a little every few minutes to help keep him awake and feeding.
- If the baby often pauses during breastfeeding, compress or move your thumb downward on the breast to move milk into the baby's mouth and remind him to suck again.

If baby does not breastfeed well for at least 10 to 15 minutes

- Offer a supplement of 1/2 to 1 ounce (15 to 30 ml) of expressed breast milk (EBM) or formula. (You may have to increase the amount after the first few days.)
- Use a hospital-grade, rental breast pump to express milk after breastfeeding if the baby did not suck well for at least 10 to 15 minutes.
- Follow the suggestions in care plan 8 on page 36.

Between feedings or pumping sessions

- Place your baby skin-to-skin between your breasts whenever possible. This increases milk production and encourages a baby to breastfeed. You may be surprised how much this can help!
 - Place baby, wearing only a diaper, on your naked chest.
 - Pull a blanket/sheet over both of you, and you may wear an opened button-down shirt.

Signs that your baby has begun to breastfeed well

- Baby wakes on his own to feed at least 8 and up to 12 times in 24 hours.
- Baby latches deeply onto the breast without discomfort or pain for you.
- Baby spends *at least* 10 to 20 minutes actively sucking.
- Baby's jaw moves down and up with each suck.
- You can see and hear the baby swallowing (after the milk has "come in").
- Baby wets *at least* 6 diapers and passes *at least* 4 stools in 24 hours.

Talk to the baby's doctor and a lactation consultant about discontinuing this care plan and using care plan 1 on page 29, once baby is waking and breastfeeding well.

3. Breastfeeding the Late Preterm Baby (34 to 37 Weeks)

Care plan goals

- Give expressed breast milk or formula for baby's growth until the baby is more mature and breastfeeds well.
- Build and keep good milk production by pumping milk until the baby breastfeeds well.

Typical breastfeeding behaviors for the "late preterm" baby

- Baby is too sleepy to wake often enough and latch on and breastfeed.
- Baby latches on but falls asleep in less than 5 minutes at breast.
- Baby stops sucking and needs frequent reminders to start again.

Suggestions for breastfeeding the late preterm baby

- Use *Ideas for waking a sleepy baby*, listed on page 9.
- Spend 5 to 15 minutes trying to breastfeed.
- Supplement with your expressed breast milk (EBM) and/or formula if there is not enough EBM. (The baby's doctor will let you know how much to use.)
- Follow the suggestions in care plan 8 on page 36.

Between breastfeeding and pumping sessions

- Place your baby skin-to-skin on your chest. This helps to increase milk production and encourages baby to breastfeed.
 - Place baby, wearing only a diaper, on your bare chest.
 - Cover with a blanket to keep warm, and you may wear an opened button-down shirt.

Signs that your baby has begun to breastfeed well

- Baby wakes on his own to feed *at least* 8 and up to 12 times in 24 hours.
- Baby latches deeply onto the breast without discomfort or pain for you.
- Baby spends *at least* 10 to 20 minutes actively sucking.
- Baby's jaw moves down and up with each suck.
- You can see and hear the baby swallowing (after the milk has "come in").
- Baby wets *at least* 6 diapers and passes *at least* 4 stools in 24 hours.

Talk to the baby's doctor and a lactation consultant about discontinuing this care plan and using care plan 1 on page 29, as the baby gets closer to full-term gestational age and is waking and breastfeeding well.

4. Breastfeeding the *Tongue-Tied* Infant

Care plan goals

- Breastfeeding leads to adequate weight gain for the baby.
- Breastfeeding feels comfortable for mother so she can start and build good milk production.

Signs of a baby with a tight or short frenulum (tongue-tie)

- A band of skin under the tongue (frenulum), which attaches to the floor of the mouth, may be short or tight so it acts as if it’s “tied” to the floor of the mouth.
- The tip of the tongue looks heart-shaped or notched when baby cries or sticks her tongue out.
- Baby may not be able to stick her tongue out over the lower gum and bottom lip.
- Baby is fussy and wants to eat frequently, or feedings often last more than 45 minutes.
- Baby does not have enough wet or stool diapers, or has poor weight gain.

If you, or a lactation consultant, think your baby may be tongue-tied, ask her pediatric care provider to look at the baby or make a referral to a specialist familiar with tongue-tie.

Baby’s breastfeeding behaviors with a tight frenulum (tongue-tie)

- Baby has trouble staying on the breast – baby latches on, comes off, on, off, etc.
- Baby’s mouth makes a clicking sound during breastfeeding.
- Baby bites down or clenches her jaw throughout the feeding.

How a tight frenulum (tongue-tie) may affect mother

- You may feel nipple pain when the baby latches on or during breastfeeding, or nipple or breast pain after breastfeeding.
- You may feel a sensation that your baby is biting during the feeding.
- The nipple may have a crease across it or look flat at the top, similar to a new lipstick, when it comes out of baby’s mouth.

If baby has difficulty breastfeeding, or breastfeeding causes sore or damaged nipples

- Reread *The Basics of Breastfeeding* on page 3, for tips on helping the baby get an immediate, deep latch.
- Ask a lactation consultant to look in your baby’s mouth and also watch the baby breastfeed.
- Follow care plan 15 on page 43 if you have nipple pain. Ask a lactation consultant to look at any nipple skin damage.

Treating a tight frenulum (tongue-tie)

- Discuss frenotomy (tongue clip) with the baby’s pediatric care provider. Frenotomy is a simple clipping of the band of tissue under the tongue, which frees its movements. A lactation consultant has research studies about frenotomy that may be shared with the doctor.
- After frenotomy, a baby may need time to learn to use the tongue correctly for breastfeeding.
- Stay in contact with a lactation consultant until the baby breastfeeds well and nipples heal.

5. Breastfeeding with a Nipple Shield

Care plan goals

- Help a baby latch on well and maintain sucking at the breast.
- Effectively remove milk from the breasts and achieve adequate weight gain for the baby.

Signs that a nipple shield may help

- Baby cannot latch onto or stay on the breast, or keep her mouth sealed on the breast.
- Baby cannot keep sucking for 10 to 15 minutes.
- Mother’s nipples are flat or inverted, or sore with skin damage.

Suggestions for using a nipple shield

- Let a lactation consultant choose the nipple shield size that will work best for your baby.
- Use water or mother’s milk to circle the outside edge of the shield, the area that will be against your breast, to help hold it in place.
- Turn the shield’s outer edge almost inside out, center it over the nipple tip, and then smooth the edge back over your breast. This draws the nipple tip more deeply into the shield.
- Your baby should latch deeply onto the shield – not just on the tip.
- If you have difficulty following these suggestions, ask a lactation consultant or your nurse to show you how to use the nipple shield properly.

When using a nipple shield for breastfeeding

- Your baby should actively suck for *more than* 10 minutes and you should see milk in the end of the shield after she breastfeeds.
- Use a breast pump after each breastfeeding *at least* until the volume of milk “comes in.” Give the pumped milk to your baby after breastfeedings.
- Discuss with a lactation consultant and the baby’s pediatric care provider whether your baby should be supplemented and whether you need to continue to pump after breastfeeding. See care plan 8 on page 36.

Weaning from the nipple shield

Some babies may use a nipple shield for several weeks or months. If the nipple shield is helping, there is no hurry to wean a baby from it. Be patient and stay in touch with a lactation consultant. She will encourage and help you change the care plan as the baby breastfeeds better (with or without the shield) and more milk comes in.

Suggestions for weaning from a nipple shield

- As the baby’s breastfeeding ability improves, remove the shield during a feeding. Try using the shield for several minutes at the first breast and then stop the feeding to take it off or wait to try without it when feeding on the second breast.
- A preterm baby may not be ready to wean from a shield until after the full-term due date.
- Occasionally a baby needs to use a nipple shield for several months. Although some mothers find it less convenient, it still allows for effective breastfeeding.
- Keep practicing and watch your baby’s responses at breast. Your baby will let you know when she is ready to give up the shield!

8. Establishing Milk Production with a Hospital-Grade Electric Breast Pump

Care plan goals

- Bring in and then maintain adequate milk production (supply) for baby's needs.
- Feel physically comfortable when using the breast pump.

Getting ready to pump

- Wash your hands thoroughly with soap and water.
- Put the breast pump collection kit together and attach it to the breast pump.
- Massage your breasts from your rib cage to the areola/nipple area.
- Center the flanges (breast shields) over your nipples and pump both breasts at the same time.
- Begin pumping on the lowest suction setting and increase to as high as comfortable.

How often to pump

- Pump *at least* 8, and up to 10 times, in 24 hours, or every 2 to 3 hours. (Pumping more often during the day lets you sleep for one 4- to 5-hour period at night.)

How long to pump

First 3 to 7 days (before the milk comes in and flows easily)

- Use the highest suction setting that feels comfortable for you.
- Pump for about 15 minutes.
- You may get a few drops to almost an ounce of colostrum from each breast. (Regular, frequent pumping is important during the first week even if a mother gets little milk during sessions.)

After days 3 to 7 (once the milk has come in and flows more easily)

- Use the highest suction setting that feels comfortable for you.
- Pump for 2 minutes after the last drops stop coming out (about 15 to 30 minutes) to thoroughly remove milk. If milk is still dripping at 30 minutes, end the pumping session.
- You may get more than an ounce from each breast. (By 10 to 14 days, most women obtain a total of at least 20 oz, or 600 ml, in 24 hours.)
- To make sure you are pumping 8 or more times in 24 hours, keep a daily chart or diary to write down when you pump, such as the *Pumping Record* on page 52.

Individual differences

Mothers make more milk when they have a regular routine for pumping sessions. If the pumping routine is not working for you or it does not fit with your personal routine, contact a lactation consultant for ideas that may help with your situation.

Pumping should not hurt. You may feel a gentle pull and tug, but talk to a lactation consultant if you feel pain during pumping sessions.

Storing breast milk

Refer to the section *Expressing and Storing Mother's Milk*, page 14, for guidelines about storing milk for a healthy full-term baby. If your baby has been in the NICU/SCN, use the information given to you by a lactation consultant on that unit.

9. Storing Breast Milk for a Baby in the NICU/SCN

Care plan goals

- Store mother's milk properly for a baby in the Neonatal Intensive Care Unit/Special Care Nursery (NICU/SCN).
- Keep the milk clean and reduce the spread of disease.

Milk storage for babies under 32 weeks' gestational age and/or under 1,500 grams

Very low birth weight (VLBW) babies and those who are less than 32 weeks gestation are at more risk for infections. Freezing milk for 24 hours in a hospital-grade freezer kills certain viruses. The NICU/SCN staff places pink stickers on breast milk containers that have been frozen for 24 hours.

- As soon as a pumping session is complete, pour the milk from the collection bottles into containers provided by the NICU/SCN. New containers should be used for each pumping session.
- Place one of the white labels provided by the NICU/SCN on each container of milk and write the date and time of the pumping session. You will be given pink stickers when you are discharged from the hospital. Place the pink sticker on the bottle lid but do *not* fill it out. (The NICU/SCN staff will fill it out later.)
- Write the name of any new medication you are taking on the labels, and also tell your baby's nurse.
- Ask your baby's nurse how much milk you should bring each day to the NICU/SCN. The NICU/SCN has limited freezer space, although there is enough space to ensure that your baby always has your milk.

Milk storage for babies older than 32 weeks' gestational age

- As soon as a pumping session is complete, pour the milk from the collection bottles into containers provided by the NICU/SCN. New containers should be used for each pumping session.
- Label each container with the date and the time of the pumping session. Use labels provided by the NICU/SCN. Be sure your first and last names are on the label. Write the name of any new medication you are taking on the labels, and also tell your baby's nurse.
- Give the containers of milk to your baby's nurse.
- Store fresh breast milk in the refrigerator if it will be used within 48 hours. If the milk will not be used in that time, place it in the freezer toward the back (not near the door) or in a deep freezer. Frozen breast milk is usually considered safe to use for at least 3 to 4 months when kept in the freezer compartment of a refrigerator, and it lasts up to 12 months in a deep freezer.
- Bring your breast milk to the NICU/SCN in a small, insulated cooler. Use a frozen freezer pack to keep milk cool on the way to the hospital.

10. Breast Pump Issues

Cleaning the breast pump collection kit

Washing by hand (after each pumping session)

- Use hot, soapy water to wash the pieces of the collection kit that come into contact with milk. Rinse with hot water.
- Shake off excess water and lay the kit pieces on a clean towel to air dry. Cover the parts with a clean paper or cloth towel between pumping sessions.
- Dry with a clean paper or cloth towel before pumping again if pieces are still wet.
- **Do not wash the tubing and filter(s) that attach to the pump**, as these pieces do not come into contact with milk. (A Medela® Classic breast pump may lose suction if a filter becomes wet.)

Other ways to clean the collection kit pieces

- At least once a day, do *one* of the following in addition to washing by hand:
 1. Wash the pieces that come into contact with milk on the top rack of a dishwasher.
 2. Boil these kit pieces once a day for 20 minutes if you don't have a dishwasher.
 3. Use a steam-clean bag in a microwave oven according to the directions that come with the bag.
- Remove, shake off excess water and lay the kit pieces on a clean towel to air dry. Cover the parts with a clean paper or cloth towel between pumping sessions.

For detailed instructions, check the written information that came with the breast pump collection kit.

Pain or discomfort when pumping

- Pumping should not hurt. Some mothers report a small amount of discomfort when they begin pumping, which goes away after pumping for a minute or two.
- Check to make sure the flanges (breast shields) are centered over the nipples.
- Discomfort or pain may mean you need a larger size of flanges (breast shields).
- Pump at the highest suction level that feels comfortable. Turn the setting a little lower if pumping causes discomfort or pain.
- Talk to a lactation consultant if you often feel pain or discomfort with pumping, or if your nipples become sore or cracked.

The pump is “not working right,” has no power or too little suction

If you do not feel any suction with pumping or it is too weak, *make sure:*

- You have the correct collection kit for the particular pump.
- All parts are properly and securely connected.
- The collection bottle is screwed tightly onto each flange.
- The flanges (breast shields) stay in contact with your skin all around the breasts when pumping.
- The tubing is dry.
 - If water is in the tubing, run the pump with only the tubing attached for a few minutes.
 - If milk gets in the tubing, stop the pump, wash tubing in sudsy water and rinse with hot water. Shake it out; then air dry or attach the tubing and run the pump for a few minutes, or use an eyedropper to pour a small amount of isopropyl alcohol through the tubing.
- Collection bottles are kept upright and emptied before overfilling occurs.
- The filter barrier is dry if using a Medela® Classic breast pump. If it gets wet, rinse it with warm water (no soap) and air dry it or use a blow dryer over it.

11. Supporting Breastfeeding if a Newborn is Supplemented by Bottle

Care plan goals

- Allow the baby to use his mouth in a way that is more like breastfeeding if an infant-feeding bottle is used.
- Protect the baby's breathing/airway if receiving liquid from an infant-feeding bottle.

How to bottle feed

- Hold the baby in a vertical position, so he is upright or in a seated to semi-seated position.
 - Baby's head should be higher than his bottom and hips.
 - If seated, a baby should be bent at the hips – not hunched over or bent at the waist.
- Encourage the baby to root and open his mouth wide.
 - Gently touch the baby's nose with the tip of the bottle nipple (as with breast nipple) and rest the nipple just above the baby's upper lip.
 - Use the fingers of the hand holding the bottle to make skin contact with the baby's lower lip and chin.
- Wait for the baby to open wide (when possible) before letting baby take the bottle nipple, so latching onto the bottle nipple is more like latching onto the breast.
- Let the baby pause during the feeding as needed.
 - Feeding is a new skill for a newborn and pauses are normal.
 - Wait 30 to 60 seconds for the baby to start feeding again or stroke the bottle nipple on the roof of the baby's mouth. (Don't jiggle the bottle nipple.)
- A true slow-flow bottle nipple allows a baby to control the flow of milk better as it comes into the mouth, and such nipples are more compatible with breastfeeding behaviors.

Signs that an infant-feeding bottle nipple flow is too fast for a baby

- Choking
- Gagging
- Coughing
- Sputtering
- Biting down/clenching nipple
- Drooling a lot during feeding.

Infant-Feeding Bottle Nipples

TriHealth lactation consultants tested many infant-feeding bottle nipples to find those that let a baby use his mouth more like he does when breastfeeding, and to protect the baby's breathing.

- Ask a TriHealth lactation consultant or call TriHealth Breastfeeding and Lactation Support Services for more information.
- The feeding nipples provided in the hospital tend to flow too fast and are *not* the better ones to use after a baby goes home from the hospital.

This care plan should be used with one of the individualized mother-baby care plans on pages 29 to 33. A lactation consultant will discuss the care plan with you and how to move toward direct breastfeeding. Once a baby is able to breastfeed well, exclusive breastfeeding with the baby directly at breast is always better than bottle feeding.

12. Weaning from a Breast Pump

Care plan goals (based on individual mother's goals)

- Decrease milk production to fit baby's developmental needs.
- End milk production for this childbearing cycle (if desired).

Suggestions for weaning from a breast pump

- *Days 1 to 3:* Pump 1 hour later than usual, about every 4 to 5 hours, and pump for 5 to 10 minutes less than usual. Expect some breast engorgement, but pump before the breasts become too tight and painful. Do *not* move to the next step of this plan until engorgement no longer occurs.
- *Days 4 to 6:* Push pumping back another hour, about every 6 hours, and pump for 5 to 10 minutes less. Wait until engorgement no longer occurs before moving to the next step.
- *Days 7 to 10:* Push pumping back another 1 to 2 hours, about every 7 to 8 hours, for 5 to 10 minutes (as above). Wait until engorgement no longer occurs before moving to the next step.
- *Days 10 to 14:* Pump if needed but do *not* pump to empty the breasts. Pump just to the point that relieves discomfort. Or pump just until milk letdown and immediately turn off the pump. Simply let the milk flow into the collection bottles without the help of the pump.
- Speed or slow this pump-weaning schedule based on your comfort, but do *not* stop suddenly, as it may lead to plugged ducts or mastitis (breast infection).

Suggestions for relieving discomfort when you are weaning from the breast pump

- If your breasts are engorged, apply cold packs to both breasts to relieve the swelling and pressure. (See care plan 14 on page 42.)
- Express a little milk with the pump if breasts become engorged, but pump just enough to relieve pressure and tightness. Do not empty the breasts completely.
- Watch for signs of plugged ducts or mastitis, which are listed on care plan 17 on page 45.
- Drink plenty of good fluids, such as water and 100% juices. Avoid foods and beverages that are high in sodium (salt), such as processed meats, canned foods, dairy, etc. that may add to swelling.

13. Pumping Record

Baby's name (*first and last*) if baby is still in the NICU/SCN
 See page 52 for an extra copy of this form.

WEEK 1 — Write in the amount of milk you pump each time.

	DAY 1	DAY 2	DAY 3	DAY 4	DAY 5	DAY 6	DAY 7
#	Date	Date	Date	Date	Date	Date	Date
	Time/Amt	Time/Amt	Time/Amt	Time/Amt	Time/Amt	Time/Amt	Time/Amt
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Totals:							

WEEK 2 — Write in the amount of milk you pump each time.

	DAY 1	DAY 2	DAY 3	DAY 4	DAY 5	DAY 6	DAY 7
#	Date	Date	Date	Date	Date	Date	Date
	Time/Amt	Time/Amt	Time/Amt	Time/Amt	Time/Amt	Time/Amt	Time/Amt
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Totals:							

14. Breast Engorgement

Care plan goals

- Remove milk from the breasts.
- Decrease breast swelling.

Remove milk

- Breastfeed or pump breasts every 1-1/2 to 3 hours to prevent or minimize engorgement.
- Use breast massage and then *Reverse Pressure Softening* (RPS) just before breastfeeding or pumping. (See a description and illustrations of RPS under *Relieving Engorgement* on page 12.)
- Use *breast compression* while breastfeeding or pumping. (Move downward on the breast with your thumb to move milk into the baby's mouth or into the breast pump collection piece.)
- If your baby is having difficulty latching on, use a hospital-grade breast pump to remove milk.

Decrease swelling

- When breasts become tight or hard, there is swelling in the breast outside of the milk-making area. Tight, hard breasts often feel tender.
- Use cold packs on your breasts for 20 minutes before breastfeeding or pumping. (Place a towel between skin and cold pack.) Also use cold packs for 20 minutes on and 40 minutes off between breastfeedings or pumping sessions as needed until the milk begins to flow well.
- Do *not* use heat when there is swelling.
- Crushed ice or small cubes placed in a freezer bag, or bags of frozen vegetables make good cold packs to wrap around swollen breasts. (Do not eat the vegetables after using as cold packs, especially if refrozen and used more than once.)
- Some have found using a compress of *green* cabbage leaves on the breasts helps decrease swelling. Do not heat cabbage leaves before using – rinse in cool water and apply cool or cold leaves directly on the breast, except for the nipple-areola area. Remove (and throw away) when wilted. Stop using cabbage leaves when the swelling goes down.
- Lie down or sit back in a recliner position while cold packs are on your breasts. Elevating the breasts this way can help to relieve swelling.
- Wear a supportive, well-fitting bra but avoid a tight bra or clothing that may put pressure against the milk-making breast tissue.
- Ask your doctor about using a non-steroidal, anti-inflammatory medication, such as ibuprofen, to reduce inflammation.
- Drink plenty of fluids, but avoid liquids and foods high in sodium (salt), as they may make the swelling worse.

Engorgement should respond to this treatment within 12 to 24 hours. Call a lactation consultant or breastfeeding support leader if engorgement continues, as prolonged severe engorgement may hurt milk production.

15. Sore or Damaged Nipples

Care plan goals

- Find the cause of nipple damage.
- Heal the damaged nipple tissue (skin).

What a mother may feel when baby latches or breastfeeds incorrectly

- Biting (or clenching)
- Pinching
- Burning or itching
- Sharp or stabbing pain
- Bruising

What the nipple(s) may look like

- Deeper pink or red (may be dull, bright or shiny)
- Cracked, scraped or flaking
- Flattened (at top) or creased after feeding
- Blanched (very white) after feeding
- Bleeding, scabbing or oozing a white or yellow substance

Suggestions for treating sore or damaged nipples

- Sore and damaged nipples often are due to an improper latch-on at the breast. Review section 2, beginning with *Baby-Led Latch/Attachment to Breast*, on page 3.
- Use different breastfeeding positions throughout the day.
- If only pumping, it may be that the breast shield (flange) that fits over the nipple and areola is too small or too large.
- Once a day, wash the nipples with a mild soap and water to prevent infection.
- With clean hands, express a few drops of colostrum or milk and rub it into the nipple after a feeding. Then apply a small amount of a purified lanolin, such as Lansinoh®, on the nipples and areola. This *moist* wound healing is better than air-drying nipples.
- Call your doctor if a crack or scab is not healing or looks as if there is white or yellow discharge when the nipple has dried between feedings, as this may mean there is a *bacterial* infection.
- If a nipple looks red, flaking or you feel a burning pain during breastfeeding, it may be a yeast infection. Check baby's mouth for white, cheesy patches. If noticed, call your doctor.
 - Both mother's nipples *and* baby's mouth should be treated if a yeast infection is confirmed, because yeast can pass back and forth between a baby and mother with breastfeeding.
 - The anti-fungal medication used in baby's mouth is *not* in a form that should be used on a mother's nipples.
- Stay in contact with a lactation consultant until nipple soreness or damage disappears.

Breastfeeding should not hurt. If breastfeeding is not comfortable or nipple damage is seen, something is wrong. Call a lactation consultant right away.

16. Flat or Inverted Nipples

Care plan goals

- Help baby latch on and breastfeed well.
- Avoid nipple soreness and damage.

Signs of flat or inverted nipples (sometimes only one nipple is affected)

- Flat nipples do not “stand out” (evert) with stimulation, such as cold or touch, including the touch of baby’s mouth.
 - Some women experience flat nipples for several days after birth, although their nipples usually evert with stimulation. This may be due to an accumulation of fluid late in pregnancy or extra IV fluid during labor and birth.
- With inverted nipples, the nipple tip seems to turn in or is dimpled in toward the chest wall. A gentle pinch on either side of the areola, just behind the nipple tip, may cause the nipple to turn farther inward.

Ways to help your baby latch on to the breast and continue suckling

- Use *Reverse Pressure Softening* (RPS) just before breastfeeding or pumping to help baby to latch on. (See a description and illustrations of RPS under *Relieving Engorgement* on page 12.)
- Roll your nipple and areola between your fingers to make it stand out better. Pulling back on breast tissue may help your nipple protrude (stick out) better when latching the baby.
- Lie back as if in a recliner chair and use a baby-led latch technique. Review section 2, beginning with *Baby-Led Latch/Attachment to Breast*, on page 3. These techniques allow the baby to use instincts to latch more deeply on the breast.
- Try a *recliner chair* position, which uses gravity to move fluid or extra breast tissue away from the nipple area.
- Consider trying one or more of the following if a baby is still unable to latch or latch deeply:
 - Use an electric breast pump for several minutes just before feeding to draw out and help soften the nipple. (Use RPS, as explained on page 12, before pumping.)
 - Speak with a lactation consultant to discuss the use of a nipple shield to help baby latch better.
 - Use of a device such as the Lansinoh® *LatchAssist*™ to gently apply suction to a nipple just prior to latching baby on, which may be helpful for some mothers.
 - Wearing a breast shell, a hard plastic shell that fits over the nipple and exerts suction, between feedings or pumping sessions may be helpful for some mothers.

A lactation consultant or nurse will suggest an additional care plan if a baby needs more time to learn to latch onto a flat or inverted nipple to make sure the baby gets fed and you can work on milk production.

17. Plugged Milk Ducts and Mastitis

Care plan goals

- Get rid of any plugged duct and decrease breast inflammation.
- Identify the cause of the mastitis.
- Prevent mastitis from getting worse.

Signs of a plugged duct or inflammatory mastitis

- A hard, sore lump (plugged duct) in the breast
- A reddened area on the breast
- Feeling achy and run down (some women feel fine)
- A fever of *less than* 101°F (degrees Fahrenheit)

Suggestions for relieving signs of inflammatory mastitis

- Breastfeed (or pump) *more frequently* on the affected breast* – *at least* every 2 to 3 hours.
- Use cold packs for 20 minutes before breastfeeding or breast-pumping if any swelling (tight or hard area) is present. (If there is no swelling, cold or heat may be used for comfort.)
- Use a different position (hold) for each breastfeeding.
- Massage over the lump (plug), or a sore or reddened area of the breast, before and during breastfeeding or pumping.
- Rest as much as you can. Treat yourself as if you have a bad cold or flu.
- Drink plenty of good fluids and eat healthy foods.
- Do not wear a tight-fitting bra or clothing that presses against the breast tissue.
- Ask your doctor about using non-steroidal, anti-inflammatory drugs (NSAIDs), such as ibuprofen, to reduce inflammation and discomfort.

Signs of infectious mastitis

- No improvement or feeling worse after 24 hours
- More breast tenderness, redness, warmth/heat, swelling
- Flu-like symptoms, such as body aches, chills, nausea, etc.
- A fever of *more than* 101°F (degrees Fahrenheit)

Suggestions for treating infectious mastitis

- Follow the suggestions for inflammatory mastitis (above).
- Call your doctor right away.
- Take every dose of an *antibiotic* if prescribed (usually prescribed for 10 to 14 days).
- Speak with a lactation consultant.

* *It is rare to have to stop breastfeeding with mastitis. Frequent breastfeeding or pumping is usually best. If a baby is in the NICU/SCN, it may be necessary to “pump-and-dump” during the first 48 hours on antibiotics for mastitis. Be sure the NICU/SCN staff is aware if you have mastitis.*

18. Overproduction and Overactive Letdown

Care plan goals

- Achieve appropriate weight gain for baby.
- Increase baby's comfort while breastfeeding.
- Increase mother's comfort while breastfeeding.

Signs of overproduction and overactive letdown

Overproduction (oversupply) is when a mother produces a large amount of milk. Often, she also experiences a more forceful, or overactive, letdown (OALD).

Baby's cues that his mother may have overproduction or OALD

- Gulps, chokes, sputters, coughs during the first minutes of breastfeeding
- Leaks milk from the corner of the mouth during feeding
- Thrashes or pulls away from the breast
- Bites down, clenches or makes clicking noises during feedings
- Spits up after many feedings
- Is often gassy and acts uncomfortable between feedings
- Passes greenish, frothy stool and has explosive stools
- Gains too little or too much weight for his age.

A mother's signs that she may have overproduction or OALD

- Feels pain or discomfort with the force of letdown
- Notices a forceful spray or flow during letdown
- Develops sore nipples if baby pulls away or bites down
- Often feels uncomfortably full in her breasts between feedings
- Keeps having plugged ducts or mastitis.

Managing overproduction or OALD

- Offer only one breast at each feeding. If this does not help after several days, offer the same breast for two feedings or for 4 to 6 hours before switching to feed from the other breast.
- Pump the other breast if it becomes uncomfortably full, but pump only to comfort. Do not empty the breast completely.
- Speak with a lactation consultant, especially if you or your baby are uncomfortable during or between breastfeedings.

Helping the baby manage the milk flow with OALD or overproduction

- Position the baby so that his hips are much lower than his head. The football (clutch) hold or having baby seated and straddling your leg and facing the breast are positions that may help.
- At the beginning of a feeding, express milk or pump the milk just until letdown. Then stop (or turn the pump off) and wait until the initial spray of milk slows before breastfeeding.
- Break the baby's latch if he begins to choke or cough. Wait until the flow of milk slows before bringing baby to breast again.
- Burp the baby as often as needed if gulping means the baby is taking in a lot of air during feeding.

Other suggestions

- Take a deep breath and slowly let it out if the milk letdown feels painful. Discomfort usually goes away as the flow of milk slows down.
- If baby has not been gaining weight well, watch his diaper counts and take the baby for regular weight checks.
- If you have been pumping a lot in addition to breastfeeding and think pumping may play a role in overproduction, talk to a lactation consultant about your feeding and pumping plan.



Resources

Breastfeeding Support: Groups and Phone Information

TriHealth Breastfeeding/Lactation Support Services

513-862-PUMP (7867);

http://www.trihealth.com/whe/mat/mat_breastfeeding.aspx?id=0
1.00.03 and

http://www.trihealth.com/whe/mat/Docs/MRG_BF%20web.pdf

La Leche League of Greater Cincinnati and Northern Kentucky

513-357-MILK (6455);

<http://www.lloho.org/groups/cincinnati.html>

Medela® Breast Pump Rental & Sales in Greater Cincinnati

Rental stations and nursing bra dealers are subject to change.

Call first to verify availability of products or services.

If applicable, call to ask if a medical card is accepted. For updated information about where to rent or purchase Medela® products, go to <http://www.medelabreastfeedingus.com/> or call their customer service number at 800-435-8316. For the Medela statement on pre-owned personal breast pumps, see <http://www.medelabreastfeedingus.com/tips-and-solutions/14/can-i-buy-or-borrow-a-pre-owned-breastpump>.

OHIO

Bethesda North (TriHealth)

10500 Montgomery Rd., Cincinnati 45242

513-862-PUMP (7867)

Good Samaritan Hospital (TriHealth)

375 Dixmyth Ave., Cincinnati 45220

513-862-PUMP (7867)

Mullaney Medical

Cincinnati

Pleasant Ridge: 6096 Montgomery Rd. 45213, 513-731-1400

Blue Ash: 9300 Kenwood Rd. 45242, 513-793-6898

West Chester

7846 Cincinnati-Dayton Rd. 45069, 513-779-9808

Queen City Med Mart

Evendale 10780 Reading Rd., Cincinnati 45241

513-733-8100

The Christ Hospital

Expressions & More 2139 Auburn Ave., Cincinnati 45219

513-585-0597

Kunkel Pharmacy

Home Health Care 7717 Beechmont Ave., Cincinnati 45255

513-231-1943

Mercy Hospitals

Babykind Lactation Services

7500 State Rd., Cincinnati 45255

513-624-3275

and

3000 Mack Rd., Fairfield 45014

513-870-7721

Walgreens Drug Stores

Cincinnati

1 W. Corry Street 45219, 513-751-3444

3084 W. Galbraith Rd. 45239, 513-521-4531

2320 Boudinot Ave. 45238, 513-347-3359

2203 Beechmont Ave. 45230, 513-232-7200

West Chester

7804 Cincinnati-Dayton Rd. 45069, 513-779-8302

Yost Pharmacy

120 W. Main St., Mason 45040, 513-398-5010

Lactation Success

2971 Weeping Willow Dr., Hamilton 45011, 513-650-9630

McCullough Hyde Memorial Hospital

110 N. Poplar St., Oxford 45056

513-524-5477

The Medicine Shoppe

1971 Central Ave., Middletown 45044

513-424-8180

KENTUCKY

Motherhood Express

7000 Houston Rd., Florence 41042

859-746-2460

Crestville Drugs, Inc.

2446 Anderson Rd., Crescent Springs 41017

859-341-1660

Walgreens

606 Buttermilk Pike, Crescent Springs 41017

859-344-1824

RESOURCES

Babies “R” Us

4999 Houston Rd., Florence 41042
859-282-8921

INDIANA

Samaritan Home Care/Health Center South

424 3rd St., Aurora 47001
812-926-1582

Nolte’s Pharmacy

1 E. George St., Batesville 47006
812-934-2414

Medela® Maternity/Nursing Bra Dealers

TriHealth

Cincinnati, 513-862-PUMP (7867)

Destination Maternity

(Kenwood) Cincinnati 45236
513-793-1648

Gap Maternity Cincinnati

(Kenwood Mall) 513-984-5300
(Rookwood Commons) 513-531-2427

Motherhood Express

Florence, Ky. 41042
859-746-2460

Women’s Wellness Boutique

St. Elizabeth Medical Center
Edgewood, Ky. 41017
859-301-6200

Selected Reading

Basic How-to of Breastfeeding

Mohrbacher, Nancy & Kendall-Tackett, Kathleen (2010). *Breastfeeding Made Simple: Seven Natural Laws for Nursing Mothers* (2nd ed.). Oakland, CA: New Harbinger Publications. (Author site: <http://www.breastfeedingmadesimple.com/>)

Renfrew, Mary, Fisher, Chloe & Arms, Suzanne (2004). *Bestfeeding: How to Breastfeed Your Baby*. Berkeley, CA: Ten Speed Press. (Author sites: <https://hsciweb.york.ac.uk/research/public/Staff.aspx?ID=1261>; <http://www.suzannearms.com/>)

Spangler, Amy (2010). *Breastfeeding: A Parent’s Guide* (9th ed.). Cincinnati, OH: Author. (Author site: <http://www.babygooroo.com/>)

General Breastfeeding

Barber, Katherine (2005). *The Black Woman’s Guide to Breastfeeding: The Definitive Guide to Nursing for African American Mothers*. Naperville, IL: Sourcebooks, Inc.

Behrman, Barbara (2005). *The Breastfeeding Café: Mothers Share the Joys, Challenges, and Secrets of Nursing*. Ann Arbor, MI: University of Michigan Press.

Carnesecca Michele Leigh (2009). *Mommy’s Little Breastfeeding Book: 101 Tips Your Baby Wants You to Know About Breastfeeding* (2nd ed.). Orem, UT: Bennett Communications. (Publisher site: <http://www.uvmag.com/littlebreastfeedingbook/index.html>)

Huggins, Kathleen (2010). *The Nursing Mother’s Companion* (6th ed.). Boston: Harvard Commons Press. (Publisher site: <http://www.harvardcommonpress.com/the-nursing-mothers-companion/>)

La Leche League International (2010). *The Womanly Art of Breastfeeding* (8th ed.). Schaumburg, IL: Author. (Organization site: <http://www.llli.org/>)

Newman, Dr. Jack & Pitman Teresa (2006). *The Ultimate Breastfeeding Book of Answers* (rev. ed.). NYC: Three Rivers Press. (Author site: <http://www.drjacknewman.com/>)

Pryor, Karen & Pryor, Gail (2005). *Nursing Your Baby* (4th ed.). NYC: Harper Collins. (Author site: <http://www.penandpress.com/about.gale.php>)

Sears, Martha & Sears, William (2000). *The Breastfeeding Book: Everything You Need to Know About Breastfeeding Your Child from Birth to Weaning*. Boston: Little, Brown & Company. (Author site: <http://www.askdrsears.com/>)

Silverman, Andi (2007). *Mama Knows Breast: A Beginner’s Guide to Breastfeeding*. Philadelphia: Quirk Books. (Author site: <http://mamaknowsbreast.com/>)

Tamaro, Janet (2005). *So That’s What They’re For! The Definitive Breastfeeding Guide* (3rd ed.). Cincinnati, OH: Adams Media.

Return to Work or School

Berggren, Kirsten (2006). *Working Without Weaning: A Working Mother’s Guide to Breastfeeding*. Amarillo, TX: Hale Publishing. (Author site: <http://www.workandpump.com/>)

Colburn-Smith, Cate & Serrette, Andrea (2007). *The Milk Memos: How Real Moms Learned to Mix Business with Babies and How You Can, Too*. NYC: Tarcher/Penguin. (Author site: <http://www.milkmemos.com/>)

RESOURCES

Hicks, Jennifer (Ed) (2005). *Hirkani’s Daughters: Women Who Scale Modern Mountains to Combine Breastfeeding and Working*. Schaumburg, IL: La Leche League International. (Organization site: <http://www.llli.org/>)

Pryor, Gale & Huggins, Kathleen (2007). *Nursing Mother, Working Mother* (2nd ed.). Boston: Harvard Common Press. (Publisher site: <http://www.penandpress.com/about.gale.php>)

Extended Breastfeeding & Weaning

Bengson, Diane (2000). *How Weaning Happens*. Schaumburg, IL: La Leche League International.

Bumgarner Norma Jane (2000). *Mothering Your Nursing Toddler* (rev. ed.). Schaumburg, IL: La Leche League International. (Author site: <http://www.myntoddler.com/>)

Huggins Kathleen & Ziedrich Linda (2007). *The Nursing Mother’s Guide to Weaning* (rev. ed.). Boston: Harvard Commons Press. (Publisher site: <http://harvardcommonpress.com/content/books/details/the-nursing-mothers-guide-to-weaning-revised-edition>)

Special Breastfeeding Situations

Breast Surgery

West, Diana (2001). *Defining Your Own Success: Breastfeeding After Breast Reduction Surgery*. Schaumburg, IL: La Leche League International. (Author site [breast/nipple surgery: http://www.bfar.org/](http://www.bfar.org/))

Milk Production, Low

West, Diana & Marasco, Lisa (2008). *The Breastfeeding Mother’s Guide to Making More Milk*. NYC: McGraw-Hill. (Author site: <http://www.lowmilksupply.org/>)

Multiples Twins, Triplets, Etc.

Gromada, Karen (2007). *Mothering Multiples: Breastfeeding and Caring for Twins or More* (3rd ed.). Schaumburg, IL: La Leche League International. (Author site: <http://www.karengromada.com/karengromada/index.htm>)

Rudat, April (2007). *Oh Yes You Can Breastfeed Twins!* PA: Author. (Author site: <http://www.ohyesyoucanbreastfeedtwins.com/>)

Nutrition During Lactation

Behan, Eileen (2007). *Eat Well, Lose Weight, While Breastfeeding: The Complete Nutrition Guide for Nursing Mothers*. NYC: Ballantine Books. (Author site: <http://www.eileenbehan.com/>)

Preterm Infants

Ludington-Hoe, Susan (1993). *Kangaroo Care – The Best You Can Do to Help Your Preterm Infant*. NYC: Random House. (Author site: <http://fpb.case.edu/KangarooCare/index.shtml>)

Gotsch, Gwen (1999). *Breastfeeding Your Premature Baby*. Schaumburg, IL: La Leche League International.

Madden Susan L. (2000). *The Premie Parents Companion: The Essential Guide to Caring for Your Premature Baby in the Hospital, at Home and Through the First Years*. Boston, MA: Harvard Common Press.

Tandem Breastfeeding Breastfeeding Two (or More) of Different Ages

Flower, Hilary (2003). *Adventures in Tandem Nursing: Breastfeeding During Pregnancy and Beyond*. Schaumburg, IL: La Leche League International. (Author site: <http://www.kelly-mom.net/nursingtwo/>)

Parenting

General Parenting

Karp, Harvey (2003). *The Happiest Baby on the Block: The New Way to Calm Crying and Help Your Newborn Baby Sleep Longer*. NYC: Bantam. (Author site: <http://www.thehappiestbaby.com/>)

Sears, William & Sears, Martha (2003). *The Baby Book: Everything You Need to Know About Your Baby from Birth to Age Two* (rev. ed.). Boston: Little, Brown & Company. (Author site: <http://www.askdrsears.com/>)

Infant Sleep

Pantley, Elizabeth (2002). *The No-Cry Sleep Solution* NYC: McGraw-Hill. (Author site: <http://www.pantley.com/elizabeth/>)

Internet Breastfeeding Help

(Author sites are listed with *Selected Reading* titles)

Breastfeeding “How-to” Video Clips

Ameda (latch): <http://www.ameda.com/resources/video>

Biological Nurturing (positioning/latch): <http://www.biologicalnurturing.com/video/bn3clip.html#>

Jack Newman, MD (latch, other techniques): <http://www.drjacknewman.com/video-clips.asp>

Getting Started with Breastfeeding (menu includes general “how to” plus milk expression/breast pumping): <http://newborns.stanford.edu/Breastfeeding/>

Pumping Record

Baby's name *(first and last)* if baby is still in the NICU/SCN

WEEK 1 — Write in the amount of milk you pump each time.

	DAY 1	DAY 2	DAY 3	DAY 4	DAY 5	DAY 6	DAY 7
#	Date	Date	Date	Date	Date	Date	Date
	Time/Amt	Time/Amt	Time/Amt	Time/Amt	Time/Amt	Time/Amt	Time/Amt
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Totals:							

WEEK 2 — Write in the amount of milk you pump each time.

	DAY 1	DAY 2	DAY 3	DAY 4	DAY 5	DAY 6	DAY 7
#	Date	Date	Date	Date	Date	Date	Date
	Time/Amt	Time/Amt	Time/Amt	Time/Amt	Time/Amt	Time/Amt	Time/Amt
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Totals:							

