NURSING
THE FIRST TWO MONTHS

Fifth Revised Edition

An excerpt from *The Nursing Mother's Companion*
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Nursing:
The First Two Months

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Off to a Good Start: The First Week

YOU MIGHT EXPECT THAT AFTER THE WORK of labor and birth, a mother and her newborn infant would be too exhausted to greet each other. But no matter how fatigued birth may have left her, the mother usually brightens with renewed energy to explore her baby. Some mothers seem to meet their infants for the first time with puzzlement, as if searching for some sign of familiarity. Others react as if they have always known this tiny being and are overjoyed to meet him at long last.

After several minutes of adjustment to breathing, the temperature change, and lights and sounds, the infant likewise becomes alert, opening his eyes and moving his mouth. Soon he is actively rooting about. With his fists to his mouth, or perhaps his lips against the blanket or his father's arm, he seeks out the comfort of the breast.

In the Beginning

Throughout the first two hours after birth, the infant is usually alert and eager to suck. At this time he is most ready for his first nursing.

Colostrum. It is not unusual to hear a first-time mother tell a nurse, "I don't think I have anything yet to feed the baby." Although small in amount, colostrum is available in the breast in quantities close to the stomach capacity of the newborn. This "liquid gold," which is often yellow but may be clear, resembles blood more than milk in that it contains protective white blood cells capable of attacking harmful bacteria. Colostrum also acts to "seal" the inside of the baby's intestines, preventing the invasion of bacteria, and provides the baby with high levels of antibodies from the mother. Not only does colostrum thus offer protection from sickness, it is the ideal food for the newborn's first few days of life. It is high in protein and low in sugar and fat, making it easy to digest. Colostrum is also beneficial in stimulating the baby's early bowel movements. The black, tarry stool, called meconium, contains bilirubin, the substance that causes newborn jaundice. Colostrum in frequent doses helps eliminate bilirubin from the body and may lessen the incidence and severity of jaundice.

In the hospital, this first nursing may take place in the delivery room, the birthing room, or the recovery area. With minimal assistance from your nurse or partner, the baby will probably latch on eagerly to the breast and suck. He will be more willing if he is

unbundled; snuggled within your arm and next to your body, he is unlikely to get too cold (unless perhaps the room is air-conditioned). The purple color of his hands and feet is normal; it is caused by changes in blood circulation that take place at delivery. If you or the nurse is concerned about the cold, place a blanket over the baby after he has begun to nurse.

Many specialists believe that when the first nursing is delayed much beyond the first two hours, the infant may be somewhat reluctant to take the breast thereafter. Most babies fall asleep about two hours after birth and become more difficult to rouse over the next few hours. Nursing without delay also boosts the confidence of the mother and stimulates the action of hormones that cause the uterus to contract and remain firm after delivery. These contractions may help speed delivery of the placenta and minimize blood loss afterward (breastfeeding alone is insufficient, however, in the case of postpartum hemorrhage, when prompt intervention by the medical staff is essential). During the first few days after birth, some mothers feel these contractions, or "afterpains," while nursing. Mothers who have had other children may be especially uncomfortable with afterpains.

Should you not have the opportunity to nurse right after delivery, or if you can't persuade your baby to take the breast, don't get discouraged. Many mothers have established successful nursing hours or days after giving birth.

Just the breast. When you have finished your first nursing in the hospital, let the nurses know (if you have not done so previously) that you prefer your baby be given no supplementary bottles of water or formula and no pacifiers. Water or formula is unnecessary, and artificial nipples may confuse your baby while he is learning to breastfeed.

Newborns do not normally require any fluids other than colostrum (the exception is the baby who has low blood sugar because her mother is diabetic, her birth weight was low, or she underwent unusual stress during labor or delivery). Supplemental feedings, moreover, can be harmful: they may cause the baby to lose interest in the breast and to nurse less frequently than needed. This is because bottle nipples may (1) lessen the baby's instinctive efforts to open her mouth wide, (2) condition her to wait to suck until she feels the firm bottle nipple in her mouth, and (3) encourage her to push her tongue forward—the opposite of what she needs to do while nursing. The baby who has sucked on bottle nipples may also become frustrated while nursing, since milk does not flow as rapidly from the breast as it does from the bottle.

Giving newborns large amounts of water is dangerous. Because young babies can't excrete water quickly, large amounts can lower sodium levels in their bodies, causing complications that include low body temperature and seizures.

A newborn trained to take a pacifier may fail to recognize her mother's soft, short nipple and, therefore, have trouble latching on to the breast. Introducing a pacifier now could lead to later problems, too. Recent studies associate the use of pacifiers with early weaning, and older babies who use pacifiers are more likely than others to have frequent ear infections.

Some hospitals now have policies against giving bottles and pacifiers to nursing newborns, but not all do. To be sure all the nurses know of your preference, ask them to place a sign on the baby's crib like this one:

To all my nurses:

While I'm here and learning to breastfeed, PLEASE, NO BOTTLES OR PACIFIERS. My mom will be happy to nurse me whenever I fuss.

Thanks!!
Baby Reynolds

Time at the breast. Many doctors and nurses tell mothers that to prevent sore nipples they should limit their nursing time during the first several days. Probably nothing else about breastfeeding is as poorly understood as the causes of sore nipples. It may be explained that keeping feedings short will prevent soreness and will help "toughen" the nipples. Actually, sore nipples usually result from improper positioning of the baby on the breast, not from long nursings. Another myth often heard by new mothers is that the breast "empties" in a prescribed number of minutes. Most newborns require 10 to 45 minutes to complete a feeding. As long as your positioning is correct and nursing is comfortable, there is no need to restrict your nursing time. Besides being unnecessary, limiting nursing time may frustrate the baby and lead to increased engorgement when milk production begins.

Positioning at the breast. A baby is correctly positioned at the breast when he has latched on to it with a wide-open mouth, so that his lower gum is well below the base of the nipple on the areola, the dark area around the nipples. In this position he will compress the sinuses located beneath the areola to draw out milk. If he instead latches on to the nipple only and starts "chewing," the nipple will probably

become sore and cracked, and perhaps even bleed. The baby will also be unable to compress the sinuses beneath the areola and may therefore get too little milk.

An infant correctly positioned while nursing.

Probably the most important skill for you to master, initially, is that of getting the baby on the breast correctly. Some mothers can do this easily, but many need practice.

The "cradle hold," or "cuddle hold," in which the baby's head is held in the crook of the mother's arm, is considered the classic breastfeeding position. I have come to believe that for most new mothers and babies, this position is neither the easiest nor the most effective

It's hard to control a newborn's head using the cradle hold.

for getting a baby well latched on to the breast. In the first few weeks after birth, a baby hasn't developed enough muscular coordination of the head and neck to easily latch on without help; she needs a good deal of direction from her mother. But it is difficult to direct a newborn's head accurately with the inside of one's forearm. Although most mothers sooner or later begin using the cradle hold for most of their daytime nursings, in the early days of breastfeeding the cross-over and football holds are generally more useful.

The cross-over hold. Take time to position yourself comfortably. If you are nursing in a hospital bed, sit up as straight as possible with a pillow behind you. As soon as you are able, sit in a chair with arms (most couches are too deep). Unwrap your baby; this will encourage his interest in latching on and make it easier for you to check his position. Place one or two pillows on your lap so that the baby is at the level of your breast. Lay him on his side with his chest and abdomen against your body.

Instead of placing the baby's head in the bend of your elbow as in the cradle hold, hold him with the opposite arm, so that your hand rests between his shoulder blades and supports the back of his neck and head. Place your thumb behind and below one ear and your other fingers behind and below the other ear. Tip his head back slightly so that, when you pull him onto the breast, his chin will reach it first. Now shift the baby, if necessary, so that his nose—not his

Cross-over hold

Hand position for the cross-over hold

mouth—is right in front of your nipple. In this position he is most likely to latch on with his lower jaw well below the base of the nipple.

If you're starting on the left breast, hold it with your left hand so that your thumb is positioned at the margin of the areola, about 1½ inches from the nipple, at the spot where the baby's nose will touch the breast (or at about two o'clock, if you imagine a clock face

Just before latch-on: Tip the baby's head back a bit, and aim your nipple at his upper lip.

Just before latch-on, from your point of view.

printed on your breast). Place your index finger the same distance from the nipple at the spot where the baby's chin will touch the breast

(or at about eight o'clock). Gently compress the breast to match the shape of your baby's open mouth.

Before you bring the baby onto the breast, you must stimulate him to "root." Touch the baby just under the nose with your nipple, and wait until he opens his mouth wide. When his lower jaw is dropped all the way down, quickly bring his shoulders and head together to the breast. With his head tipped slightly back, his chin should reach the breast first. Don't lean into the baby. Keep the areola compressed until he begins sucking. You'll know that he is well latched on if his lips are far apart and flared, if he has more of the bottom of the areola in his mouth than the top, and if you feel comfortable.

You may need to repeat this process several times before the baby latches on correctly. Common mistakes include lining up the baby's mouth rather than the nose with the nipple, pulling the baby on before his mouth is wide open, not pulling him on quick enough or far enough, and letting go of the breast before he is well latched on.

Once the baby is actively nursing, you'll probably need to support the breast for him, by gently pressing your fingers against the underside. If your breasts are small, though, you may be able to let go of the breast or even switch arms and continue nursing using the cradle hold.

Football hold. The football hold is a great position to use when—

- You have had a cesarean birth and want to avoid placing the baby against your abdomen.
- You need more visibility in getting the baby to latch on.
- Your breasts are large.
- You are nursing a small baby, especially if he is premature.
- You are nursing twins.

Sit in a comfortable armchair with a pillow at your side to help support your arm and lift the baby. Support the baby in a semisitting position facing you, with her bottom at the back of the chair. Your arm closest to your baby should support her back, with your hand holding her neck and head. Place your thumb behind and below one ear and your other fingers behind the other ear. Position the baby with her head just below the breast and her nose in front of the nipple. This way she'll latch on to the areola with her lower jaw well below the base of the nipple.

Support your breast with your free hand so that your thumb is about 1½ inches above the nipple, at twelve o'clock, and your index finger is the same distance below the nipple, at six o'clock. Compress the areola with your thumb and index finger so that your hand forms a C-shape. This will more closely match your breast to the shape of your baby's mouth, so she can take in more of the breast. As with the cross-over hold, stimulate the baby to open her mouth wide, and bring her up onto the breast.

Football hold

Hand position for the football hold

Side-lying position. The side-lying position is an especially good choice for nursing when—

- You must be flat after a cesarean birth.
- You are uncomfortable sitting up.
- You need help from someone else to get the baby latched on.
- The baby is sleepy and reluctant to begin nursing or stay awake very long.
- You are nursing during the night.

You and your baby lie on your sides, tummy to tummy, as with the cuddle hold. Place your fingers beneath the breast and lift upward, then pull the baby in close after he roots with a wide-open mouth.

Side-lying position

The side-lying position becomes much easier after four to six weeks, when the baby has better head control and can come onto the breast without much assistance.

Ending the feeding. Waiting until your baby lets go of the nipple is the ideal way to end a feeding. If the baby does not come off the breast by himself after 20 to 25 minutes on a side, and you want to switch breasts or rest awhile, you can take him off by first breaking the suction. Even if he is not actively sucking, his hold on the nipple is tremendously strong. To release the suction, insert your finger into the corner of his mouth, pushing your finger between his gums until you hear or feel the release. You can also try placing your finger on the corner of the baby's mouth and pulling the skin gently toward his ear.

After taking the baby off the breast, leave your bra flaps down so that the air can dry your nipples. Air drying helps to maintain healthy nipples.

After a cesarean birth. Whether or not your cesarean is planned, your milk will come in just as if you had delivered vaginally, and you can breastfeed your baby. Because you will be recovering from surgery, you will face some discomfort and possibly some difficulty maneuvering the baby to your breast. If you are expecting a cesarean, you may want to ask to share a hospital room with another woman who has had one. Some hospitals make such arrangements routinely.

If you are awake for your delivery, let the staff and the baby's physician know you wish to nurse as soon as possible. As long as the baby is not having any difficulties, there is no reason to delay nursing. If you can't sit up, you can nurse in the side-lying position with some help from your partner or the nurse.

If you are not fully conscious during the delivery, or if the baby is kept in the nursery by the doctor's orders, you can still begin nursing after your initial separation. Medication for pain is important for your comfort during the first few days; it will not hurt the baby. If you take the medication right after you nurse, moreover, only a minimal amount will be in your milk at the next feeding. After a couple of days you may want to keep the baby in the room with you. Remember to ask for help whenever you need it. Sometimes the staff may forget you gave birth by cesarean section.

You may prefer to nurse at first in the side-lying position. Leave the side rails of the bed up so that turning will be easier. A pillow behind your back and one between your legs may be helpful. When you begin sitting up to nurse, a pillow on your lap will make you more comfortable. The football hold works well while sitting if you want to keep the baby off your abdomen.

Ensuring Your Milk Supply

Frequent nursing. Your baby should be nursing often, at least eight times in 24 hours. Until your milk comes in your baby needs frequent feedings of colostrum. After your milk comes in, about 72 hours after the birth, a good feeding every few hours will help ensure a plentiful milk supply.

During the first few days after birth, many babies are sleepy. If your newborn has not nursed after three hours (counted from the start of the last feeding), unwrap her from her blankets, rub her back, and talk to her. She will probably then become interested in nursing.

In the hospital, keeping the baby with you in your room helps ensure frequent nursing. If you are not rooming-in with your baby, ask the nurses to bring her to you at least every three hours (more often if she fusses), including whenever she wakens in the night.

Encourage the baby to have a good feeding each time you nurse her. Until your milk is in, you can probably persuade her to take both breasts at each feeding. Listen for the sound of your baby swallowing; when you hear it you will know that she is taking colostrum or milk. When your baby has released the nipple, or when you have nursed her for 20 to 25 minutes and she is no longer swallowing, burp her. Hold her up over your shoulder and pat her back, or sit her upright, bent slightly forward with your hand supporting her lower jaw, and firmly pat her lower back. After burping, she will probably

You can burp the baby by sitting her up, one hand under her jaw. Firmly pat her lower back with the other hand.

regain interest in nursing and take the second breast. If she doesn't burp within a few minutes, just switch sides. If she refuses to nurse on the second breast or nurses only a short time, be sure to start her on that side at the next feeding.

The first days of milk production are the critical period for determining whether a mother ends up with a generous milk supply or an inadequate one. If little milk is removed from the breast, the resulting pressure causes the breast to slow down production. If no milk is

removed, milk production stops entirely. (This is how women who don't nurse stop producing milk.) So ensuring a good milk supply depends on having a vigorous nursing baby (or an effective breast pump) that drains at least one breast every few hours around the clock.

Avoiding supplements. Another way to help ensure your milk supply is to avoid supplemental feedings. Some babies become very confused when a bottle nipple is introduced during the first few days (see "Just the Breast," page 2). Glucose (sugar) water offers few calories and may discourage the baby's interest in nursing. Also, babies fed glucose water more frequently develop jaundice in the first few days after birth. After taking formula, a baby frequently will not want to nurse for four hours or longer, since formula takes longer to digest than breast milk. The decrease in breast stimulation may decrease milk production.

Putting your fears to rest. In the early days of nursing, you may be very surprised at how often your baby wants to nurse. Like many newborns, yours may seem fussy and hungry much of the time. This may make you wonder if you have enough milk, and if you should pump your milk and feed it by bottle to see how much the baby is getting. Well-meaning friends and family members may even suggest you supplement your milk with formula.

Most newborns want to nurse eight to twelve times in each 24-hour period after the first day or two post partum. This frequent nursing is normal; it seldom reflects a poor milk supply and it never reflects "weak milk." Unless you or your baby falls into one of the categories described under "Babies Who May Not Get Enough" (page 11), your baby is probably getting plenty of milk.

Without introducing a bottle, though, how can you know your baby is getting enough? You can look for these signs of adequate milk intake:

- **Your milk has come in by the third or fourth day post partum.** When milk production begins, the breasts become firmer and heavier. The firmness may be less apparent with large breasts, but the breasts should still feel heavier.
- **Your baby is nursing at least eight times in a 24-hour period.** This means your baby is nursing every two to three hours (measured from the start of one feeding to the start of the next) during the day, with a sleep stretch of up to five hours at night. If your baby isn't nursing this often, you may have to wake her for feedings.

- **Your baby is nursing 10 to 45 minutes at each feeding** and seems content after feedings. Babies vary in the length of time they nurse, but they typically need 10 to 45 minutes to complete a feeding. Although babies don't always fall asleep after nursing, they should usually seem satisfied after feedings.
- **Your baby has several periods of swallowing during each feeding.** When babies are getting milk, they take long, drawing sucks and can be heard swallowing or gulping. (When they are not swallowing milk, they take short, choppy sucks.) These long, drawing sucks usually occur in bursts of five to ten continuous sucks followed by a pause. Babies who are taking enough milk usually have several bursts of continuous sucking and swallowing during a feeding.
- **Your breasts feel softer or lighter after the baby has nursed.** You should be able to feel a difference in fullness or heaviness in your breasts before and after your baby has fed.
- **Your baby is having bowel movements every day, and by the fifth day they have turned yellow.** This is the clearest sign that a baby is getting enough colostrum first, and later, breast milk. Most newborns have at least three bowel movements each day during the first month. Only after the first month is it normal for breastfed babies to go several days without a bowel movement.
- **Your baby is wetting more diapers by the fifth day after birth.** Before your milk comes in, your baby will urinate infrequently, but by the fifth day you should notice more frequent and wetter diapers. Be aware that the more absorbent disposable diapers can make wetness difficult to detect.

If not all of the points just listed hold true for you and your baby, you should have him weighed and examined. In the first four to five days after birth, a baby loses weight. After the fifth day, a baby should gain an ounce every day. An initial loss of 10 percent or more of a baby's birth weight suggests the baby is underfed. Even if your baby has lost less than 10 percent of his birth weight, have him weighed again in a couple of days to see if he has started gaining an ounce per day.

Babies who may not get enough. Some mothers and babies at risk for underfeeding can be identified even before the milk comes in. This group includes—

- babies who are born three weeks or more before the due date;
- babies who weigh less than six pounds at birth;

- babies who may have poor muscle tone, such as those with Down syndrome;
- babies who have unusual conformations in their mouths, such as a short frenulum (the string of tissue on the underside of the tongue) near the tongue's tip, a high palate, or a cleft lip or palate;
- mothers with large nipples (as large or larger in diameter than a quarter); and
- babies who aren't yet latching on or sustaining sucking 24 hours after birth.

If you or your baby falls into one of these risk groups, a few days of sluggish nursing and limited milk removal could have a devastating effect on your milk production. Consider renting a fully automatic electric breast pump, which may be more reliable than your baby in stimulating continued milk production. Starting on the third day after birth, pump for 5 minutes on each breast right after each daytime and evening nursing. If your baby isn't able to latch on or clearly isn't sucking effectively, start pumping earlier than the third day, and pump each breast for 10 to 15 minutes. This "insurance pumping" should assure that you'll have an abundant milk supply even if your baby's sucking is on the sluggish side. You can freeze the pumped milk for later use.

Watch your baby closely for the reassuring signs of adequate milk intake listed on pages 10-11. The baby should be weighed at 10 to 12 days of age, or sooner if you suspect that he may not be taking enough milk. If he has regained his birth weight, you can gradually stop pumping over a few days (before returning the pump, though, make sure the baby has gained an ounce a day since the last weighing). But if he is still below his birth weight at 10 to 12 days of age, supplement nursings with the pumped milk (see "Treatment Measures for Underfeeding," page 44).

Other babies who may not get enough milk are those whose mothers—

- have had previous breast surgery involving an incision around the nipple or areola, such as in some breast augmentation or reduction procedures; or
- have widely spaced breasts that are rather long and thin, that did not get larger in pregnancy, and that may differ markedly from each other in size.

In the latter case, such breasts are called hypoplastic. On the third day after birth, when the breasts normally fill with milk, hypoplastic breasts may remain soft. Because of a congenital abnormality, they contain insufficient glandular tissue, and so are unable to produce very much milk.

If you have had breast surgery that may affect your ability to produce milk, or if you suspect you may have insufficient glandular tissue, observe your baby closely for signs of low milk intake. Weigh her at three to four days of age and every couple of days thereafter until she is clearly gaining an ounce a day. If she loses 10 percent or more of her birth weight or does not gain an ounce a day after five days of age, she needs your pumped breast milk or formula as a supplement. See "Underfeeding and Weight Loss," page 44.

The First Week of Nursing

Although most babies are alert and eager to nurse during the first two hours after birth, during the next few days they may sleep much of the time. The average baby, after the first couple of days, begins to wake up to nurse about every one to three hours. At night, he will sleep from one to five hours at a stretch. If your baby is not waking on his own to nurse at least eight times in each 24-hour period, including at least once in the night, awaken him for feedings.

The typical length of a feeding varies greatly from baby to baby. A baby who is "all business"—who sucks and swallows with few pauses—may complete a feeding in as little as ten minutes. At the other extreme is the "dawdler," who sucks and swallows five or six times and then pauses. This pattern of frequent pausing may extend a feeding up to 45 minutes. Most babies' feedings fall between these extremes; the average is about 20 to 30 minutes. Although your baby may not fall asleep after feeding, he should seem content.

While the baby nurses, you should hear a lot of swallowing. Some babies gulp noisily, whereas others are more quiet. When babies are getting milk they take long, drawing sucks and can be heard swallowing or gulping. (They take short, choppy sucks when they are not swallowing milk.) These long, drawing sucks usually occur in bursts, that is, five to ten continuous sucks followed by a pause. Babies who are taking enough milk usually have several bursts of continuous sucking and swallowing during a feeding.

You should not hear clicking noises while your baby nurses. Clicking usually means that the baby is not sucking adequately and, therefore, may not be receiving enough milk. The baby should have such a strong hold on the breast that the nipple does not easily slip from his mouth when you pull him slightly away. His cheeks should remain smooth with each suck; dimples on the cheek while nursing

are a sign of inadequate suction and faulty sucking (see "Sucking Problems," page 40, if your baby's cheeks are dimpling).

During the first day after birth, babies sometimes spit up mucus they have swallowed during delivery. Occasionally a baby will gag on this mucus. After the first 24 hours, this is usually no longer a problem.

Some babies also spit up colostrum or milk. The amounts are usually smaller than they seem, though you may wonder if your baby is keeping anything down. Spitting up a teaspoon or two after feedings is normal for some babies in the first week.

Babies also get hiccoughs, often after a feeding. If the baby starts hiccoughing after nursing at the first breast, it may be difficult to interest him in the other. You don't need to give him water or anything else. The hiccoughs are painless for him; just wait until they go away.

The baby's first stools, called meconium, are black and sticky. Stooling every day and having yellow stools by the fifth day usually indicates an adequate intake of colostrum, first, and then breast milk. This is one of the surest signs that a newborn is getting enough to eat. Most newborns have at least three bowel movements each day during the first month. Only after the first month is it normal for breastfed babies to go several days without having a bowel movement.

The yellow stools are soft, loose, or watery, and sometimes they look seedy. Babies normally strain and grunt when passing their stools—this does not mean they are constipated.

Wet diapers are usually infrequent in the first few days, but they should be more frequent and wetter by the fifth day. Eight or more diapers wet with pale urine each day, along with daily yellow stools, are usually a sign of sufficient milk intake. (This rule may not hold true if the baby is receiving water supplements.)

All newborns lose weight after birth. Expect your baby to lose about 5 to 9 percent of his birth weight. He should begin gaining weight by the fifth day, about an ounce a day.

Caring for your breasts. Your daily bath or shower is sufficient for cleaning your breasts. Avoid getting soap or shampoo on the nipple and areola; it tends to counteract the naturally occurring oils that cleanse this area. Antiseptic applications to the nipples are also unnecessary, but do take care to wash your hands before nursing.

You will probably want to wear a nursing bra for convenience and comfort, especially after your milk comes in. Again, bras with cotton or microfiber rather than synthetic cups allow for better air circulation to the nipples.

If the baby does not come off the breast by herself when the nursing session is over, take care to release the suction with your finger. Leave your breasts exposed to the air for five or ten minutes before covering up. Air drying is soothing to the nipples.

During the past decade nursing mothers have been discouraged from using nipple creams, since some women develop sore nipples in reaction to preparations containing lanolin, vitamin E, or cocoa butter. Also, lanolin preparations were discovered to be contaminated with pesticide residues. Recently, however, a purified form of lanolin has been developed; it is nonallergenic and pesticide-free. Modified lanolin will not prevent nipple soreness, but it is very soothing to tender nipples and may promote healing.

For those women who leak milk, nursing pads are usually necessary during this time to prevent wet or spotted clothing. You can buy the pads in two varieties: reusable, washable types; and disposable types. (Remember: if you prefer disposable pads, stay away from those with plastic liners because they keep the nipple wet and may aggravate soreness.)

If you are using plastic breast shells to improve the shape of your nipples, you may find during the first few weeks that they cause your milk to leak excessively and keep your nipples damp. You might try placing the shells in your bra just 20 to 30 minutes before the feeding (milk collected this way must be discarded). Don't routinely use breast shells in place of nursing pads; this would probably cause more leakage. Breast shells should be washed after each nursing in hot, soapy water and rinsed thoroughly.

When your milk comes in. Milk production generally begins on the second or third day post partum, but occasionally not until the fourth day. At first the milk will be mixed with colostrum, and so will be pale orange in color. After a few days the milk will become whiter. This mature milk will look more watery than cow's milk; it may resemble skim milk. If your milk hasn't come in by the fourth day after birth, see "Late Onset of Milk Production," page 19.

Most women notice that their breasts become larger, fuller, and more tender as the milk comes in. Large-breasted women may notice only a change in heaviness. This change, known as engorgement, is caused by increased blood flow to the breasts as well as beginning milk production. Fullness may be more apparent if your breasts are normally small or medium-sized. They may feel lumpy, and the lumpiness may extend all the way to your armpits, since milk

glands are also located there. After nursing, your breasts should feel softer or lighter.

Engorgement normally lasts 24 to 48 hours. During this time a nursing bra will provide support and comfort. Frequent nursing, at least every two to three hours, is the best treatment. Heat treatments such as warm showers, hot packs, and heating pads may worsen the swelling. You may get relief, though, from gently massaging the breast while the baby is nursing. This will encourage more milk to let down. It is important to pay careful attention to the way the baby latches on while the breast is engorged. When latch-on is incorrect because the baby isn't positioned well or the areola is overly full, soreness often follows. If the areola is hard, you can express some milk by hand or with a pump. (For further advice on managing engorgement, see page 19.)

When you put your baby to breast you may feel any of these normal sensations: warmth, relaxation, sleepiness, thirst, and even hunger.

It is normal for milk to leak from the breasts. When the baby nurses at one breast, milk may drip from the other. This leaking may continue for several weeks, or it may never happen at all.

Once you get home. As any experienced nursing mother can tell you, the first few days at home with a baby are exhausting and, at times, emotional. These days are best spent caring only for yourself and the baby. Besides recovering from the birth, you are doing the important work of getting to know your baby and learning to breastfeed. Rest and a quiet, pleasant environment are important in preventing anxiety and "baby blues." Try to eat well, but don't worry if your appetite has lessened; this can be normal during the first couple of weeks after delivery. Ideally, you should spend the first several days nursing and resting with the baby, while a supportive partner or helper (or both) manages your home, meals, and callers.

If you have another child or children, you'll want help with them, too. Otherwise you may find yourself feeling suddenly, unexpectedly impatient or irritable with a beloved older child. When my second child was born, I found myself wishing someone could take away my nine-year-old for a while. Such feelings may arise from a natural protective urge that allows a mother to focus her total attention on the vulnerable newborn; shifting hormones and lack of sleep may contribute, too. Other species also defend their babies aggressively. For instance, picking up the new babies of a household pet may make the new mama growl, though in a few weeks she may not care at all when someone handles them.

In women, as in cats and dogs, such feelings usually lessen over time. In the meantime, they present a fine opportunity for your older child to strengthen a relationship with Dad, Grandma or Grandpa, or another adult. This is also a great chance for your older child to learn patience and responsibility. You can encourage him to accept the big-kid role by saying outright that "the baby comes first." Your child may feel proud to help by fetching a diaper or glass of water, and he may later be able to apply the baby-comes-first principle with other helpless creatures, such as pets.

It is not uncommon for things to suddenly "fall apart" shortly after a new mother comes home from the hospital. Suddenly responsible for a new baby, you may feel shaky at times and your confidence may vanish. The dramatic hormonal shift that begins immediately after birth may also affect your emotional state for a short time. You may find yourself exhausted and upset—especially if you've been taking responsibility for more than the baby and yourself.

Many new mothers have times when they feel that nursing "isn't working" and think about giving it up. Combined with the mood swings that follow birth, fears that the baby may not be getting enough milk, struggles with getting the baby to latch on, or problems like sore nipples can be overwhelming. Despite tearful moments, rest assured that most early nursing difficulties can be overcome with patience and help. Don't hesitate to track down assistance. Just a phone conversation with a knowledgeable person may be enough to get you and your baby back on track.

The postpartum period is a time of physical and emotional adjustment. As with most of life's great transitions, this one is usually accompanied by some turmoil. It will take several weeks, and most of your time and energy, to get to know your baby and learn how to care for her. So don't do more than you must, and accept offers for help. Adjusting to motherhood is always easier when you are supported and cared for by others.

Survival Guide for the First Week
Concerns About Yourself

Engorged Breasts

At two or three days post partum the breasts usually become engorged, or temporarily swollen. This is caused by the increased flow of blood to the breasts and the start of milk production. For some women the breasts become only slightly full, but for others they feel very swollen, tender, throbbing, and lumpy. Sometimes the swelling extends all the way to the armpit. Engorgement may cause the nipple to flatten, making it difficult for the baby to latch on. The problem usually lessens within 24 to 48 hours, but the swelling and discomfort may worsen if nursing is too brief or infrequent or if the baby sucks ineffectively. If engorgement is unrelieved by nursing or pumping, milk production declines and ultimately stops altogether.

The breasts may grow astonishingly big and hard as milk production begins.

Although many health care providers recommend applying direct heat (warm washcloths, heating pads, hot water bottles, or hot showers) to engorged breasts, this may actually aggravate engorgement.

Treatment Measures for Engorged Breasts

1. Wear a supportive nursing bra, even during the night. Be sure your bra is not too tight.
2. Nurse frequently, every one to three hours. This may mean waking the baby (see "Sleepy Baby," page 32).
3. Avoid having the baby latch on when the areola is very firm. To reduce the possibility of damage to your nipples, manually express or pump milk until the areola softens. Wearing plastic breast shells for half an hour before nursing also helps to soften the areola.
4. Encourage the baby to nurse at least 10 minutes or longer at each breast. It is preferable to nurse on just one side until the breast is soft, even if the baby then goes to sleep, than to limit the baby's nursing time on the first side so you can nurse from both sides in one feeding.
5. Gently massage the breast at which the baby is nursing. This will encourage the milk to flow and will help relieve some of the tightness and discomfort you feel.
6. To soothe the pain and help relieve swelling, apply a cold pack to the breast for a short period **after** nursing. You can use ice in a plastic bag or, better, soak a disposable diaper in water, shape it, and then freeze it. Lay a thin cloth over your breast before applying the cold diaper.
7. If you need to, take acetaminophen tablets (such as Tylenol), ibuprofen (such as Advil or Motrin), or another mild pain reliever.
8. If 48 hours after your milk has come in you still find yourself overly full right after nursing, use a pump to drain both breasts as completely as possible. In this first week, habitual pumping along with nursing is generally discouraged, as it can lead to more engorgement and chronic overproduction. But pumping after nursing once every 24 hours or so should relieve your engorgement, not prolong it.
9. If the baby is not nursing well enough to soften at least one breast every few hours, use an electric breast pump as necessary. Unrelieved engorgement causes milk production to stop.

Late Onset of Milk Production

Within 72 hours after birth, the production of mature milk normally begins. The breasts typically feel heavier and fuller, although large-breasted women may notice little change.

Occasionally milk production is delayed beyond 72 hours; sometimes it begins only days later. In the meantime, the breasts remain soft, and the baby sucks but gets little milk. In these circumstances, some babies seem sleepy and content, but most act hungry and dissatisfied. They have infrequent bowel movements and lose more weight than normally expected.

I suspect that events during labor and birth may influence the onset of milk production. Overhydration with intravenous fluids during a long or induced labor, or after a postpartum hemorrhage, may perhaps cause a delay in mature milk production.

If your milk is late in coming in, you may need to supplement with formula until it does. But you should continue to nurse frequently in the meantime.

Treatment Measures for Late Onset of Milk Production

1. If after 72 hours post partum you suspect that your milk is not in, have your baby weighed. If he has lost less than 10 percent of his birth weight, continue to nurse frequently, every one to three hours, and monitor his weight daily.
2. If the baby has lost 10 percent or more of his birth weight, use an electric breast pump after each nursing. Feed your baby the colostrum you collect and any necessary formula.
3. When your milk comes in, refer to "Underfeeding and Weight Loss," page 44, to estimate your production and wean your baby off formula and pumped milk.

Sore Nipples

There is no doubt about it: sore nipples can make a trial of what ought to be a joyous experience. For a few days after giving birth, you may feel slight tenderness during the first minute of nursing, when the baby latches on and the nipple stretches into her mouth. Such tenderness is normal at this time. (See "General Comfort Measures for Sore Nipples" below.)

If your nipples become really sore, however, they are probably damaged or irritated and require treatment beyond simple comfort measures. It is important for you to identify the cause of the problem so that you can help your nipples heal. At any time that you are unable to tolerate the pain, and the position changes recommended in the following pages do not help, consult a lactation professional. If none is available, you may want to stop nursing; pump your milk with a fully automatic electric pump for 24 to 72 hours, or until the nipples heal.

There are two basic types of sore nipples: the traumatized nipple and the irritated nipple. The traumatized nipple may be blistered, scabbed, or cracked. The irritated nipple is very pink and often burns. Occasionally a mother may have both types of soreness at once.

In addition to the specific treatments listed for each category of sore nipples, the "General Comfort Measures for Sore Nipples" below will speed healing and provide comfort.

General Comfort Measures for Sore Nipples

1. Take acetaminophen tablets (such as Tylenol), ibuprofen (such as Advil or Motrin), or a pain reliever prescribed by your doctor, a half hour before nursing.
2. Begin nursing on the least sore side (if there is one).
3. Avoid nipple shields for nursing. These often make the soreness worse, and they may decrease your milk supply. If nursing is too painful, rent a fully automatic electric pump.
4. Massage your breasts while nursing to encourage the milk to flow and to speed emptying.
5. Restrict nursing time to about ten to fifteen minutes per side if you are sore during the entire feeding. This will probably mean nursing more often (every hour or two).
6. Release the baby's suction hold carefully before removing the baby from the breast.
7. Air-dry the nipples after each feeding. Leave the nipples exposed to the air as much as possible between nursings. A cotton T-shirt worn without a bra, or with your bra flaps down, will provide good air circulation to the nipples.
8. Change nursing pads after each nursing and when they become wet. Make sure there are no plastic liners hidden in the pads; cut them open and check if you are not absolutely sure.
9. Wear cotton or microfiber bras. Other fabrics do not allow adequate air circulation.
10. Wash plastic breast shells daily, if you use them at all. Shells may prevent the nipples from rubbing against your bra, but unless they are vented they may also encourage dripping, keep the nipples moist, and delay healing.
11. Avoid excessive washing of your nipples. Rinse them in your daily bath or shower, but avoid getting soap on them. Do take care to wash your hands before handling your breasts.
12. Leave scabs and blisters alone.
13. Do not delay nursings. Shorter, more frequent nursings (every hour to three hours) are easier on the nipples.
14. If you are using a breast pump during a period of soreness, pump your milk often—at least eight times a day—to keep up your supply. Again, anything other than a fully automatic pump (a rental pump) may not be effective enough to maintain your milk supply. Be sure to use the correct size shield for your nipple, and carefully center it before starting to pump.

Traumatized nipples. Cracks, blisters, and abrasions usually result because a baby is improperly positioned for nursing; her gums close on the nipple instead of the areola. Trauma can also occur when a baby fails to open her mouth wide enough or when her gums slide off the areola onto the nipple, commonly when the breast is engorged or not supported.

Babies who have a faulty suck or who are "tongue-tied" can also make nipples sore as they nurse (see the section on "tongue-tied" babies on page 38). Cracking may also occur with irritated nipples and thrush nipples (see the sections on both on page 23).

Treatment Measures for Traumatized Nipples

1. Carefully review "Positioning at the Breast," pages 3-7, so that you clearly understand the details of correct latch-on technique. The football or the cross-over hold is highly recommended.
2. If your breast is so full that the areola cannot be easily compressed, manually express or pump enough milk to soften the areola. This will allow the baby to get more of the areola into her mouth and will help to stimulate let-down.
3. Use the football or the cross-over hold to control the position of the baby's head through the entire feeding. This will allow you to prevent her gums from sliding down onto the nipple after she has latched on.
4. If your baby is reluctant to open her mouth wide, don't let her chew her way onto the breast. Patiently wait until she opens her mouth wide. Letting the baby suck on your finger for a few seconds may stimulate her sucking response and encourage her to open more enthusiastically.
5. Do not hesitate to take the baby off the breast as soon as you realize that she is not in the right position. You may need to help her latch on several times before you succeed at getting her far enough onto the breast. Ask your partner, helper, or lactation professional to observe your latch-on technique. A helper can also guide your arm when the baby opens wide so that she is pulled in as close as possible.
6. After nursing, apply a thin coating of modified lanolin to your nipples to soothe them and promote healing. You might also wear vented, hard plastic breast shells between nursings to keep your bra off your sensitive nipples. Review "General Comfort Measures for Sore Nipples," pages 20-21.
7. Try wearing hydrogel dressings between nursings. These cool, soothing pads, made of fluid-absorbing gel granules, may speed healing by keeping injured nipples moist enough to prevent scab formation but not excessively damp. Similar pads made with glycerin promote healing in the same fashion.
8. If you have a wound on your nipple that hasn't closed in five days, ask your midwife or doctor for oral antibiotics. The wound may be infected, and such an infection not only slows healing of the nipple but also puts a woman at high risk for developing mastitis in the coming weeks. Take the antibiotic for 10 to 14 days, or longer if healing isn't complete.

Irritated nipples. Irritated nipples are reddened and sometimes slightly swollen, and **generally they burn**. Some mothers may feel burning between as well as during feedings. In severe cases, the nipples may be cracked, peeling, or oozing. Irritated nipples may be caused by thrush or yeast, dermatitis, or an underlying skin condition such as eczema or impetigo.

Thrush nipples. This problem occurs when a yeast (*monilia*) infection in the baby's mouth spreads to the mother's nipples. The nipples become shiny, reddened, swollen, tender, and sometimes cracked. Occasionally peeling or a red, dotty rash can be seen on the nipples. Some mothers complain of itching and flaking; others complain of burning.

When a mother's nipples become sore after weeks or months of comfortable nursing, thrush is the usual cause. But a thrush infection may also occur in the first weeks after delivery, and when it does it may be overlooked as the cause of the nipple soreness. A newborn with thrush may have picked up a yeast infection in the birth canal during delivery; this often happens if the mother is diabetic. A thrush infection may also result if a mother or her baby is given antibiotics (after a cesarean, antibiotics are often given in intravenous fluids).

Thrush often appears as white, cheesy patches on the insides of the cheeks and lips.

If you suspect a case of thrush, carefully inspect the baby's mouth. You may see white patches on the inside of the cheeks, inside the lips, and possibly on the tongue. Sometimes a baby will have no symptoms in the mouth but will have a diaper rash caused by yeast. This rash, usually in the genital area, often resembles a mild burn; it may peel and does not respond to ordinary measures. Sometimes the rash looks like just a patch of red dots.

Treatment Measures for Thrush Nipples

1. Both the mother and the baby must be treated in order to prevent reinfection. The treatment usually recommended is 1 milliliter of nystatin suspension (Mycostatin) by dropper into the baby's mouth after every other nursing, or four times daily, for 14 days. Half the dose should be dropped into each side of the mouth. For the nipples, nystatin cream or ointment is recommended; the baby's medicine can also be used, but it is often less effective. The medication should be applied after each nursing. In either form, nystatin must be prescribed by a physician. Even though the symptoms may be gone after a few days, continue the treatment for the full 14 days.

   Another medication that is sometimes recommended is a 1-percent solution of gentian violet, which can be purchased at most drugstores without a prescription. Thoroughly swab the affected areas in the baby's mouth with a cotton-tipped applicator once or twice a day for three days. The solution will stain the baby's mouth purple; take care in applying so that nothing else turns purple. Some lactation professionals recommend painting the mother's nipples with gentian violet, too, but I don't recommend this treatment for tender nipples. If you cannot get your baby's doctor to prescribe nystatin cream for your nipples (and your baby's diaper rash, if present), call your obstetrician for a prescription, or use an over-the-counter antifungal cream such as Lotrimin AF, Micatin, or Monistat 7.
2. If you are using nystatin, it is best to wait for a few minutes after nursing before giving it to the baby so that it isn't washed out of his system with the milk. Some lactation professionals also recommend rinsing your nipples after each nursing the first few days with water or a mild solution of vinegar (one tablespoon vinegar to one cup water) before applying the cream or drops.
3. In addition to medication, brief exposure to the sun two or three times daily may hasten the healing of the nipples.
4. Changing the nursing pads at each feeding is a must to prevent reinfection.
5. Pacifiers, bottle nipples, and plastic breast shells must be boiled for 5 minutes every day during treatment. If you are using nystatin, these nipples should be replaced at the end of the first week.
6. If you are using a pump, it is important to wash all pump parts thoroughly after each use. In addition, the parts that come in contact with the breast or the milk should be boiled for 5 minutes daily.
7. If nystatin suspension has not cleared thrush from your baby's mouth after five to six days of treatment, consider that this medication inhibits yeast growth for only about two hours after you swab the baby's mouth. Ask your doctor about more frequent dosing, or try using gentian violet (as described in item 1) in addition to the nystatin.
8. Also consider trying fluconazole (Diflucan), an oral antifungal agent. The dosage usually prescribed is 200 milligrams on the first day followed by 100 milligrams for the next 13 days. This medication is terribly expensive, though, and I find most mothers can overcome yeast infections by using antifungal cream on the nipples and frequently treating the baby's mouth.
9. If your nipples aren't significantly better after several days of the treatment just described, see a dermatologist for additional treatment. In the absence of visible thrush, pink, burning nipples may indicate nipple dermatitis, a bacterial infection of the nipples, or both.

Nipple dermatitis. A slight reddening and a burning feeling in the nipples, in the absence of thrush (yeast) or another underlying skin condition, usually indicates dermatitis. Nipple dermatitis can result from bacterial growth on the nipples or an allergic response to a nipple cream, oil, or to laundry detergents.

Common offenders are vitamin E preparations—oils, creams, or capsules. Mothers allergic to chocolate may develop an allergic reaction to preparations with cocoa butter, such as Balm Barr. Unmodified lanolin may also cause an allergic response, usually in a mother who is allergic to wool (from which lanolin comes) or very sensitive to it. Lanolin is found in pure hydrous and anhydrous forms and in many commercial creams, such as Masse Cream, Mammol Ointment, Eucerin, and A & D Ointment. Modified lanolin, which has had the allergenic component removed, seldom causes allergic reactions.

Simply discontinuing use of the cream or oil, or switching to hypoallergenic detergents (free of perfumes and dyes) may bring some relief, but usually additional measures are necessary.

Treatment Measures for Nipple Dermatitis

1. The ideal doctor to diagnose and treat this type of nipple soreness is a dermatologist. Usually, a moderate-strength or high-potency anti-inflammatory cream and an antibiotic cream are prescribed. Your obstetrician may give you a prescription, but if he is reluctant or his remedy is ineffective, see a dermatologist.
2. Place cool, wet compresses on the nipples after nursing.

3. Apply the medication to the irritated areas after every other nursing, making sure your nipples are completely dry first. The cream should be applied sparingly so that all of it is absorbed. If you see traces on your nipples when you are ready to nurse again, you are using too much. Dab the area with a tissue to absorb the excess.
4. Use the medication for as long as advised by your doctor. Although the pain may be gone in a day or two, the dermatitis may take from one to two weeks to completely heal.
5. Should you find that the medication aggravates your soreness, stop using it immediately. This may indicate that yeast is present and should be treated. (See "Thrush Nipples," page 23.)
6. Review "General Comfort Measures for Sore Nipples," pages 20-21.

Eczema and impetigo. Eczema can appear on the nipple and areola, making the area burn, itch, flake, ooze, or crust. Women with a history or current outbreak of eczema elsewhere on the body are most often affected. Treatment from a dermatologist should be sought.

Impetigo is a severe infection that causes continual sloughing off of the skin. Impetigo on the nipples can be quickly cured with a prescription antibiotic cream.

Breast Pain

You may feel pain in your breasts if you become engorged, which usually happens two to four days after delivery (see "Engorged Breasts," page 18). Occasionally mothers complain of breast pain while nursing. If you feel a burning pain and your nipples are pinker than normal, see "Irritated Nipples," page 23. If you feel a mild aching at the start of nursing, it is probably related to the beginning of let-down.

A deep pain sometimes described as "shooting," that occurs soon after nursing, is believed to be related to the sudden refilling of the breast. This discomfort is usually temporary and disappears after the first weeks of nursing.

Leaking Milk

During the early weeks of nursing, milk may drip, leak, or spray from the breasts. This is a normal sign of let-down. While the baby nurses at one breast, milk often drips or sprays from the other. Let-down and leaking may occur frequently and unexpectedly between nursings as well. Milk may leak during sleep. It may be stimulated by the baby's sounds, by thoughts about nursing, or by any routines associated with feeding time. A shower may stimulate let-down. Dripping, leaking, and spraying usually lessen considerably after a few weeks of nursing.

Some mothers' breasts do not leak. Women who have nursed previously may notice that their breasts leak less with subsequent children. Both of these situations are usually normal.

Coping Measures for Leaking Milk

1. Open both bra flaps while nursing and let the milk drip onto a small towel or diaper.
2. Change cloth or disposable nursing pads as soon as they become wet. Avoid those with plastic liners.
3. Try silicone nursing pads, which don't absorb milk but instead apply a gentle pressure on the nipple to prevent leakage.
4. Avoid routine use of plastic breast shells if you do not need them to improve the shape of your nipples. They may keep your clothes dry, but they can cause excessive leaking and keep your nipples moist. Milk collected in the shells between nursings is unsafe for feeding. Only if the shells are boiled just prior to nursing and put in place during nursing can the milk be stored for later feedings.
5. Don't try to control leaking by habitually pumping your breasts. Pumping actually stimulates greater milk production and could make your breasts fuller and more prone to leaking.
6. If your breasts leak during the night, place extra cloth or disposable pads in your bra or use LilyPadz, which adhere to the skin and don't require a bra to hold them in place. Or spread a bath towel over the bed sheet to keep it and your mattress dry.

Let-down Difficulty

During the early weeks of breastfeeding, the let-down response is developing. Sometimes mothers are told that they must be happy, relaxed, and carefree for the let-down of milk to occur. If this were the case, few women would ever succeed at nursing. Although many mothers worry that their milk won't be available as needed, let-down failure is extremely rare among women who nurse regularly and often.

For the establishment and maximal functioning of the let-down reflex, nurse the baby every two to three hours around the clock during the first week. Make sure that she is positioned correctly and is compressing the sinuses beneath the areola, and that her feeding time is not limited. Ideally, the baby should be allowed—encouraged, if necessary—to drain one or both breasts well at each feeding.

It is also important that you are as comfortable as possible. The milk may not release completely if you are experiencing much pain—whether from sore nipples or from the trauma of delivery.

The signs of milk release during the first week will vary for each woman. They **may** include—

- mild uterine cramping during nursing;
- increased vaginal flow during nursing;
- dripping, leaking, or spraying of milk, especially during nursing;
- occasional sensations in the breast during nursing (usually not felt during the first week); and
- softening of the breasts after nursing.

The most reliable indicator of milk let-down is the sound of the baby swallowing. As the milk releases, the baby will swallow after every one or two sucks. Most women, particularly first-time mothers, do not feel the let-down reflex during the first few weeks after birth.

Usually when a mother believes she is experiencing a let-down difficulty, the problem is actually with the baby's latch-on or sucking, or a low milk supply. See "Difficult Latch-on: Refusal to Nurse," page 37; "Sucking Problems," page 40; and "Underfeeding and Weight Loss," page 44, for more information on adequate milk supply.

Milk Appearance

Whereas colostrum is usually clear, yellow, or orange, mature breast milk is white, sometimes with a bluish tint. If it resembles skim milk from the dairy, this does not mean your milk is "weak"; breast milk normally looks thin. Occasionally a mother discovers that her milk is green, blue, or pink. Such coloring is due to her intake of vegetables, fruits, food dyes, or dietary supplements and is not harmful to the baby.

Blood in the milk can usually be traced to a bleeding nipple. Occasionally, bleeding from the breast occurs during pregnancy or when breastfeeding begins. Frequently, a benign papilloma is the cause, and the bleeding generally stops within several days. Blood in the milk will not hurt the baby, though substantial amounts may make him vomit. If you are advised against nursing, pump for a few days. The problem will clear up on its own in a day or so.

Difficult Latch-on: Flat, Dimpled, or Inverted Nipples

Both mother and baby get frustrated when latching on to the breasts is difficult because of flat, dimpled, or inverted nipples. Typically, the problem is intensified if the breasts become engorged or overly full. When they do, even nipples that seemed normal may suddenly flatten or dimple. Frequently, one nipple proves to be more troublesome than the other. Persistence and patience help most mothers through this problem.

Mothers with problem nipples are often more prone to soreness. This is because latch-on becomes their number-one priority; they give little attention to correct positioning.

Treatment Measures for Flat, Dimpled, or Inverted Nipples

1. Put the baby to the breast within the first two hours after birth. The timing of the first nursing may be critical when the nipples are flat, dimpled, or inverted. Many babies are able to latch on easily to problem nipples during this initial period, and they continue to do well.
2. Avoid giving the baby an artificial nipple of any kind. Whether or not your baby has succeeded at latching on at first try, this is very important. An artificial nipple often makes his subsequent attempts more difficult.
3. Stimulate the nipples to help them stand out, by gently stroking or rolling them between your thumb and forefinger or by applying ice to the nipple just before the baby attempts to latch on.
4. To help the baby latch on to a flat nipple, make it stand out by pinching it between your thumb and forefinger. This won't work with a dimpled or inverted nipple, though; it may invert further when pinched. To help the baby latch on to an inverted or dimpled nipple, place your thumb about 1½ to 2 inches behind the nipple, with your fingers beneath, and pull back toward your chest. The cross-over or football hold will allow you the most visibility and control.

To help the baby latch on to an inverted nipple, place your thumb above the areola and your fingers below, and push your breast.

Don't squeeze your thumb and forefinger together, or the nipple may invert further.

5. Wear breast shells in your bra at least a half-hour before nursing if your breasts are engorged; this is often essential for dimpled or inverted nipples. Many hospital maternity units have breast shells. If yours doesn't, send your partner or friend to any maternity shop for a pair.
6. Pump your breasts just before nursing to pull the nipples out enough for the baby to latch on. Any pump can be used for this.
7. Express a few drops of colostrum or milk onto your nipple or onto the baby's lips if he is reluctant to latch on. Glucose water (available only in hospital nurseries) dripped over the nipple may also entice the baby, although it sometimes makes the nipple too slippery. At home, in a pinch, you can mix a teaspoon of refined sugar in a cup of warm, boiled water, then drip the solution over your nipple. But **never** use honey or corn syrup on your nipple as they have been associated with infant botulism.
8. Stop nursing if the baby is frantic, and calm him for a while. Dripping glucose water on his lips also helps to calm him and gain his interest in latching on.
9. If a nurse or another helper is working with you, use the side-lying position—or, if you're large-breasted, the football hold—to allow your helper maximum visibility and control. If your nipples are dimpled or inverted, ask the helper to pull back on the breast behind the nipple; pinching will usually result in further inversion. Sometimes these sessions become intense and upsetting, so let your helper know when you or your baby needs a break. If you are in the hospital, let a variety of nurses work with you; you can usually find one or two who are exceptionally skilled and sensitive.
10. Refuse any offers from nurses of rubber nipple shields or bottle nipples to place over your own nipple for nursing. Your baby will latch on and suck, but the shield may not allow for adequate stimulation of your nipple, or for the necessary compression of the sinuses beneath the areola. The shield can thus inhibit the let-down of milk and adequate emptying of the breast, possibly leading to a poor milk supply and insufficient milk intake for the baby. In addition, some babies who begin nursing with a nipple shield will refuse to ever nurse without it.

    If you want to try using a nipple shield to make your nipples stand out, wait at least 24 hours after the birth to give the baby a chance to nurse on his own. Take the shield off after the baby has sucked for one to two minutes, and try to get him to latch on without it. Pumping just before nursing may work just as well as a nipple shield in making the nipples stand out.

    Use a nipple shield throughout feedings only if (1) a lactation professional makes sure that the baby is taking enough milk while you're wearing the shield, or (2) you use a fully automatic electric pump after each nursing to guarantee that your breasts are being well emptied, and you have the baby weighed every few days to make sure he is gaining at least an ounce a day.
11. Begin bottle feedings 24 hours after birth if your baby still has not latched on. An electric pump is usually the best choice for collecting milk and improving the nipple shape. Continue putting the baby to breast.
12. Occasionally a mother and her baby are discharged from the hospital before nursing has occurred. If this happens to you, locate a fully automatic electric pump and use it at least eight times a day. Keep trying to nurse; once at home, short practice sessions at least three to four times per day, on a soft breast when the baby is not frantic, eventually pay off. In this situation you may need a great deal of support and encouragement. Finding this support will make all the difference. Seeing a lactation professional may be very helpful. It is very common for a baby to suddenly latch on one day, rewarding his mother's persistence.

Fatigue and Depression

During this first week, make your life as simple as possible. Your partner or helper is essential, of course, to your recovery and adjustment. He or she can be most helpful in assuring your rest by taking over family and household duties and limiting phone calls and visitors.

Rest is necessary to your ability to cope during the postpartum period. Make a commitment to take at least one nap a day to make up for sleep lost in labor and afterward due to frequent feeding demands. An answering machine can be very helpful in preventing disruptions while you nap. It's also handy when you are busy with nursing and baby care.

Eat a good breakfast—perhaps your partner can prepare it for you. If you lack an appetite at mealtimes, frequent snacking throughout the day on high-protein foods will assist your own physical recovery and help maintain your energy level.

If you have had tearing or an episiotomy, or you have hemorrhoids, take several baths each day. Warm water is soothing and relaxing, and it will speed the healing of your perineum.

Don't expect yourself to adjust to new parenthood on your own. Reach out for help or reassurance whenever you need it. Friends or

relatives might welcome the opportunity to come and help out for a while, and you should feel free to call the hospital staff, a public health nurse, your childbirth instructor, or a breastfeeding counselor whenever you need assistance, reassurance, or support.

If you feel tired and overwhelmed, try not to keep it to yourself. Let your partner know—a good cry on someone's shoulder may leave you feeling much better. Avoid making your partner the target of your fears and anger; instead of criticizing, let him know exactly what you need. One mother put it very well: "I just need him to give me hugs and let me know I'm doing OK." Your partner, after all, may be feeling as much stress as you are.

Feeling depressed over a birth experience is not uncommon. You may be able to resolve some of your feelings by talking to your childbirth instructor or birth attendant. In a week or two, you might try to locate a postpartum or cesarean support group.

If you are alone with your baby during this first week, make a special effort to continue limiting your activities. Perhaps you can have a friend come by to fix you lunch. Let the dishes soak all day, and pick up the house for only ten minutes at a time, if you must. Unplug the phone and place a sign on your door when it's time for your nap. Perhaps you can afford to pay for light housekeeping once or twice a week for a short period.

Concerns About the Baby

Sleepy Baby

Most babies are sleepy during the first several days after birth. They may be so sleepy that they refuse to nurse or they fall asleep after just a few minutes of nursing. Sleepiness during the first few days may be related in part to recovery following labor and delivery. Pain medications and general anesthetics given to the mother during the birth process also lessen the baby's wakefulness and interest in nursing. When newborns are wrapped snugly, too, they usually sleep for long periods of time (that's why nurses bundle them tightly). Babies may act too sleepy to nurse when they feel full from water or formula supplements—or an air bubble. The newborn with jaundice may also be somewhat sleepy.

Although it may seem unkind, the sleepy baby should be wakened and fed at least every three hours. The sleepy baby needs a "mother-led" rather than a "demand" schedule until she begins waking on her own. This is necessary not only for her nutritional well-being but to ensure milk production and supply. Frequent feedings will also help minimize jaundice.

Treatment Measures for the Sleepy Baby

1. Attempt nursing only after waking the baby. This is best accomplished by unwrapping and undressing her down to the diaper. Dim any bright lights, and sit the baby up on your lap by holding her under her chin. While talking to the baby, gently rub or pat her back (you may even get a burp).
2. Stroke the baby's forehead with a cool (not cold) washcloth to help waken the very persistent sleeper.
3. If the baby falls back asleep soon after latching on, use the side-lying position to encourage her to nurse for longer periods. You may need assistance from someone else to get the baby to latch on. The football hold may also be helpful in keeping the baby awake, though not as effective as side-lying nursing.
4. Burp the baby after nursing at one breast to encourage her to take the other. Sitting the baby up in your lap and bending her slightly forward usually works best. Change her diaper if needed.
5. Be persistent. If all else fails, which may happen, try again in a half hour.
6. Avoid supplements, pacifiers, and nipple shields. All of these may increase the baby's reluctance to nurse.
7. While in the hospital, take advantage of the baby's normal sleeping and waking cycles by keeping her with you as much as possible.
8. Alert your physician if your baby is very lethargic and cannot be roused by the preceding techniques after five to six hours.

Bowel Movements

Your baby's first few stools are called meconium. Meconium is black, greenish-black, or dark brown, and is tarry or sticky. By the second or third day, after several good colostrum feedings, the baby will have passed most of the meconium; he may have a few greenish-brown or brownish-yellow transitional stools.

Once milk production is established and the baby is nursing well, stools take on their characteristic yellow or mustard color. This usually occurs by the fifth day, unless the baby is jaundiced and is receiving phototherapy, which makes the stools dark, or he is not getting enough milk. Yellow stools by the fifth day are a sign that the baby is getting sufficient milk.

During the early days most babies have at least a few bowel movements daily. The stools of a breastfed baby are generally the consistency of yogurt. They are soft and may even be runny; they may appear curdled or seedy. This is not diarrhea. These stools have a sweet or cheesy odor.

Your baby may pass his stools easily, or he may fuss, grunt, and turn red in the face while having a bowel movement. This is not constipation. Constipation is not possible as long as your baby is totally breastfed.

If your baby doesn't have bowel movements every day, or if by the fifth day his stools are still dark, he may not be getting enough milk. See "Underfeeding and Weight Loss," page 44, for more information on how to determine if your baby is getting enough.

Jaundice

A yellowing of the skin and eyes, jaundice is caused by bilirubin, a yellow pigment that is present to some degree in all blood. The skin becomes yellowish when the amount of bilirubin is higher than normal.

Bilirubin comes from the red blood cells. These cells live only a short time; as they are destroyed, bilirubin is made. Bilirubin is then processed through the liver and finally eliminated in the stool. During pregnancy, the mother's liver processes bilirubin for the baby. After birth, the baby's liver has to learn to do the job. This usually takes a few days. Until the baby's liver is able to process bilirubin, it may increase in the baby's blood. This normal rise is referred to as physiologic jaundice. This is the most common form of jaundice, and about 40 percent of all babies develop it. It is usually noticed on the second or third day of life, and it generally disappears by one week of age.

Mild to moderate jaundice of this type will not hurt a baby, although many parents worry about it. However, the baby who nurses poorly or not at all during the first few days may become jaundiced from the lack of colostrum, which is important for the elimination of meconium. When meconium is retained in the bowel longer than usual, bilirubin cannot be eliminated as needed. The best way to treat this jaundice is to make sure the baby gets plenty of colostrum and breast milk (see "Underfeeding and Weight Loss," page 44).

Some babies develop jaundice for other reasons. One type of jaundice, ABO incompatibility, occurs when the mother's blood type is O and the baby's blood type is A, B, or AB. During pregnancy, maternal antibodies cross the placenta, break down red blood cells, and cause more bilirubin to be produced in the baby after birth. On the first or second day after delivery, the bilirubin level may rise rapidly. Other, less common blood incompatibilities also produce elevated bilirubin levels. Babies of East Asian descent typically experience higher bilirubin levels.

Babies with any bruises resulting from the birth process commonly develop jaundice. Also more prone to jaundice are babies who are sick right after birth or born prematurely, at low birth weights, or to diabetic mothers. Twins, too, are especially susceptible. Some drugs that are used during labor, including pitocin, can also cause jaundice.

Another type of jaundice, known as breast-milk jaundice, occurs in approximately one-third of all nursing babies. Breast-milk jaundice does not generally appear until the fifth day after birth. It usually lasts four to six weeks but can continue for as long as eight to ten weeks. The exact cause of this jaundice is still unknown, but it has never been known to cause any problem for a baby. When a baby's skin stays yellow beyond the first week, breast-milk jaundice is diagnosed by laboratory tests that rule out other forms of jaundice. Breastfeeding need not be interrupted to make this diagnosis.

If your baby looks jaundiced, the doctor may order tests to measure the level of bilirubin in the blood and determine whether treatment is necessary. If the baby was born at term and is otherwise healthy, many doctors will not order treatment unless the bilirubin level is over 20 milligrams per deciliter. Frequent breastfeeding may be all that is necessary.

Some babies may be treated with phototherapy. The "bili-lights," along with frequent nursing, help to destroy excess bilirubin. The baby usually lies under these lights from two to four days, her eyes covered with a protective mask. Often, the bilirubin level will stay constant for 24 hours and drop by 48 hours. The treatment is discontinued as soon as the bilirubin level has dropped to a normal level. Usually a baby is hospitalized for photo-therapy, but in some communities home phototherapy services are available.

Nurse often during phototherapy; taking the baby from under the bili-light for feedings will not slow her recovery from jaundice.

Rarely, usually in cases of blood incompatibility, the bilirubin climbs rapidly to high levels. On these occasions an exchange transfusion may be done to reduce the bilirubin. Over an hour or two, small amounts of the baby's blood are taken out and replaced with donated blood.

Some doctors ask the mother to stop breastfeeding temporarily whenever a baby becomes jaundiced. This is generally unwise, since

breastfeeding is usually one of the most effective ways of eliminating jaundice. Calling a halt to nursing is also unfortunate for the mother, who may wonder if her milk is really best for her baby.

Mothers are also commonly told that their nursing babies need water supplements to help get rid of jaundice. Water supplements do not lower the level of bilirubin in the blood. Some studies suggest that water supplements are associated with higher bilirubin levels. Moreover, babies who are routinely given water tend to be nursed less frequently, and they have a higher rate of early weaning.

Since 1994, the American Academy of Pediatrics has recommended a different approach: Healthy, full-term babies over 72 hours old with bilirubin levels below 20 milligrams per deciliter (or 340 micromoles per liter) should be nursed frequently, at least eight times every 24 hours, and should receive no water supplements.

Treatment Measures for Jaundice

1. Let the baby's physician know you prefer to continue nursing throughout the period of jaundice.
2. Nurse frequently, ideally every two to two and a half hours, and encourage the baby to suck at least 15 to 20 minutes at each breast. If your baby needs photo-therapy, taking her from under the bili-light for these feedings will not delay the effectiveness of treatment. Intermittent phototherapy is thought to be as effective as continuous exposure.
3. If your baby is sleepy, as jaundiced babies sometimes are, see "Sleepy Baby," page 32, for effective measures on how to wake her up.
4. Avoid water supplements, as these do not reduce bilirubin levels and may discourage the baby from nursing frequently.
5. To be sure your baby is getting enough milk, keep track of her bowel movements. She should have at least a few each day. She should have lost less than 10 percent of her birth weight, and she should gain an ounce a day after the fifth day. If she doesn't gain this much, refer to "Underfeeding and Weight Loss," page 44.
6. If you are still hospitalized or you are welcome to stay in a hospital room while your baby is being treated, ask the nurses if you can have the baby's crib and light set up next to your bed so you can care for the baby and nurse frequently.
7. If you cannot stay 24 hours a day with your baby, express your milk every three hours. Take your milk to the hospital for the feedings you will miss.
8. If your doctor is firm in her desire for you to temporarily stop nursing, again, express milk every three hours to keep your supply up. Freeze your milk and save it for later. In this case a fully automatic electric pump is strongly recommended.

Difficult Latch-on: Refusal to Nurse

Latch-on problems can originate with the baby or the mother. Most occur when the baby is sleepy (see "Sleepy Baby," page 32); when the breast becomes overly full or engorged (see "Engorged Breasts," page 18); when the mother and baby are not positioned well for latch-on; or when the mother has flat, dimpled, or inverted nipples (see "Difficult Latch-on: Flat, Dimpled, or Inverted Nipples," page 29). Problems other than these are as follows.

The baby who has nursed earlier. During the first week, it is not uncommon for a baby who has already nursed to suddenly refuse one or both sides. He may simply act uninterested although he is awake, or he may protest furiously when put to one or both breasts. A baby who has been given a bottle or pacifier during the first week may become "nipple-confused" and refuse to nurse thereafter. Such a baby will likely start nursing again after a few hours uncoaxed or after one or more of the following measures are taken.

Treatment Measures for the Baby Who Stops Nursing

1. Soften the areola if you are overly full or engorged by using manual expression or a pump just before putting the baby to breast.
2. Calm the frantic baby. A few drops of colostrum or glucose water (available only in hospital nurseries) on his lips or dripped over the nipple will often alert and encourage him. At home, in a pinch, you can mix a teaspoon of refined sugar in a cup of warm, boiled water to entice the baby. Occasionally a very upset baby may need to be tightly swaddled in a thin blanket.
3. Pay attention to proper positioning (see "Positioning at the Breast," page 3). When the baby turns his face from side to side with mouth wide open, pull him in closer so his tongue can feel the nipple.
4. Try letting the baby suck on your finger for a few seconds just before putting him to breast.
5. If the baby seems to spit out the nipple with his tongue, try holding some ice against the nipple for a few minutes to firm it. This can be particularly effective for the baby who acts "nipple-confused."
6. Persist. The baby who is hiccoughing, having a bowel movement, or staring at his mother or something else interesting will usually be reluctant to latch on. Try again in a half hour or so.
7. Coax the baby who is suddenly refusing one breast by using the football hold on that side.
8. If you can't get the baby latched on, express your milk until you can.

The baby who has not yet nursed. If a day or more has passed since the baby's birth and she still has not managed to latch on and suck, she probably has one of the specific problems described as follows.

Recessed jaw. Some babies are born with a very recessed lower jaw. This can best be seen by looking at the baby's face in profile. A recessed jaw is problematic because a baby can latch on only if her chin reaches the breast before her upper lip; otherwise she can't take enough breast tissue into her mouth.

When you try to get a baby like this to latch on, make sure your breast isn't overly full. Extend the baby's head slightly backward as you bring her onto the breast, so that her chin touches the breast first. Most babies overcome this problem by four to six weeks of age, when they are finally able to latch on and suck efficiently. In the meantime, you may need to pump your milk and feed it to your baby by bottle.

Tongue-tied. Some of the infants in this situation—mostly males—are tongue-tied. The frenulum, or string-like tissue that attaches to the underside of the tongue, is so short or connected so close to the tip of the tongue that the baby may not be able to extend his tongue past his bottom lip. Although he can suck on a finger or rubber nipple that extends well into his mouth, he may be unable to grasp the underside of his mother's nipple. Occasionally, a tongue-tied baby can manage to latch on to one breast but not the other.

The tongue-tied baby may not be able to extend his tongue far enough to latch on to his mother's nipple.

The solution is simple: the frenulum should be clipped to release the tongue. However, some physicians are reluctant or unwilling to perform this procedure, because studies conducted several years ago showed that tongue-tied infants rarely develop speech difficuties later in life; the studies concluded that tongue clipping was therefore unnecessary. Unfortunately, though, some tongue-tied babies are unable to breastfeed. If you cannot persuade your doctor to clip the frenulum, find another who will. An experienced surgeon or dentist may do this in his or her office. The procedure takes just a minute.

Tongue thrusting (nipple confusion). Some babies push their tongues forward while trying to latch on or suck, and by doing so they spit the nipple out. Babies may do this from birth or as a result of sucking on a rubber nipple. When a rubber nipple is to blame, the problem is referred to as nipple confusion. Tongue-thrusting babies can usually relearn to nurse, with some assistance.

Protruding tongue. A few babies have tongues that protrude. The tongue may look longer than normal; it may be visible between the lips much of the time. Some mothers have described the protruding tongue as forming a hump in the mouth that the nipple is not able to get past.

You may be able to teach the baby to nurse by encouraging her to open wide with her tongue down and pulling back behind the areola just before latch-on. The football hold is recommended for the best visibility and control. If you manage to get the baby on the breast, be sure she is sucking adequately. This means she does not come off the breast easily; is making long, drawing sucks; and is audibly swallowing. A few babies suck with the nipple in the front of the mouth; they rarely swallow and get very little milk.

Tongue sucking. Other infants who have difficulty latching on to the breast are those who suck their own tongues. These babies usually slide off the nipple after one or two sucks, and their cheeks dimple with each suck. They may also make clicking noises. When the baby opens her mouth to root or to cry, you may notice that her tongue is far back in her mouth or is curled toward the roof of her mouth.

Dimpling of the baby's cheeks during nursing may signify an inadequate suck.

Attempt to get the baby to latch on only when she opens wide with her tongue down. Stimulating the lower lip or slightly depressing the chin may help the tongue to drop. Pull the baby in very close. The cross-over or football hold is best when you are working alone, and side-lying will give more control and visibility when someone is assisting you.

When refusal persists. If you have followed the preceding suggestions and your baby still has not latched on, try the following measures.

Treatment Measures for Refusal to Nurse

1. Continue working with the baby. Short, frequent sessions may be less upsetting for both of you. If someone is working with you, the side-lying position may give her the greatest control and visibility. These sessions can become intense and sometimes upsetting, so let your helper know if you or the baby needs a break. If you are in the hospital, let several nurses work with you; you may find one or two who are exceptionally skilled and sensitive.
2. Refuse any offers from nurses of nipple shields or bottle nipples to place over your own nipple for nursing. Your baby will latch on and suck, but the shield may not allow for adequate nipple stimulation or for the necessary compression of the sinuses beneath the areola. This can seriously hamper the let-down of milk and adequate emptying of the breast, which may lead to a poor milk supply and insufficient intake for the baby. In addition, some babies will refuse ever to nurse without the shield. Use a nipple shield for entire feedings only if (1) a lactation professional is making sure that the baby is getting enough milk during feedings with the shield, or (2) you use a fully automatic electric pump after each nursing to guarantee that your breasts are being well emptied, and you have the baby weighed every few days to make sure he is gaining at least an ounce daily.
3. If after 24 hours your baby has not latched on, supplementary feedings should begin. Express your milk at least eight times a day, and feed the expressed milk to your baby.
4. If you are discharged from the hospital and your baby is still not nursing, use a fully automatic electric pump and keep giving pumped milk to the baby.
5. Continue short practice sessions several times a day. Some babies do better on a soft or empty breast.
6. Get lots of support and encouragement. If possible, see a lactation professional.
7. Be patient and persistent. Many babies with latch-on problems do overcome them sometime during the first ten days, but a significant number first latch on at about one month of age.

Sucking Problems

Some babies can latch on to the breast but have a faulty sucking pattern. With some, the suction is so poor that they easily slide off the breast or can be taken off effortlessly. When they are nursing, their cheeks dimple with each suck, and frequent clicking noises may be audible. Most of these babies are sucking not on the nipple but on their tongues, which may perhaps be a habit developed in the uterus. These babies receive only the milk that drips into their mouths.

Although most babies with this problem have it from birth, others may develop it if they lose much weight, usually close to a pound, by the end of the first week. If this happens, and the baby cannot correct her suck after several good attempts at latching on, pump your milk and bottle-feed for 24 to 72 hours, supplementing breast milk with formula as necessary. After the baby is rehydrated and has regained a few ounces, she will probably correct her suck on her own.

A baby may have difficulty sucking at one or both breasts because she is tongue-tied. No matter how hard she tries, she may fail to get milk from the breast, and the mother's nipples may hurt even when the baby is correctly positioned. Sometimes a clicking sound can be heard as the baby sucks. To correct such a problem, have your doctor or dentist clip the baby's frenulum. (See the section on tongue-tied babies on page 38.)

Another group of babies who have difficulty sucking and getting enough milk are those with very high palates. When the roof of the mouth is very high, the baby has trouble compressing the breast against the palate to express the milk into her mouth. Many babies with high, arched palates do little swallowing at the breast and fail to gain weight well. Few health professionals, including pediatricians, yet recognize high palates as a potential problem for nursing babies. If it is difficult to see the very top of a baby's palate without placing your head close to the baby's chest, or if the shape of the roof looks much deeper than the curve of a teaspoon, the palate may be too high. If you can get the baby to suck on your little finger (nail side down), and you feel a frequent loss of suction between your finger and his tongue, or your finger isn't in firm co tact with the roof of his mouth,the palate may be too high. Some babies with high palates are also tongue-tied.

In the case of a high palate, the only remedy I know of is for the mother to use an electric pump right after each nursing to bolster her milk supply. After a few days the baby will usually start to swallow more at the breast and gain weight better, but as soon as the pumping stops the baby begins to take less milk and will again fail to gain sufficient weight. Usually supplemental pumping is necessary for several weeks, until the baby has grown enough to suck more efficiently. Using the football hold may help the baby suck better.

Treatment Measures for the Baby with Poor Suction

1. Remove the baby from the breast as soon as this pattern is evident.
2. Observe the position of the tongue when the baby's mouth is wide open. If it is curled against the roof of the mouth, try to lower it with your finger. Sometimes touching the lower lip or pressing slightly on the chin will help.
3. Using the cross-over or football hold, pull the baby in as close as possible for latch-on.
4. Continue working with the baby. Short, frequent sessions may be less upsetting for both of you. If someone is working with you, the side-lying position may give her the greatest control and visibility. These sessions can become intense and upsetting, so let your helper know if you or the baby needs a break. If you are in the hospital, have several nurses work with you; you may find one or two who are exceptionally skilled and sensitive.
5. Refuse any offers from nurses of nipple shields or bottle nipples to place over your own nipple for nursing. Your baby will latch on and suck, but the shield may not allow for adequate nipple stimulation or for the necessary compression of the sinuses beneath the areola. This can seriously hamper the let-down of milk and adequate emptying of the breast, which may lead to a poor milk supply and insufficient intake for the baby. In addition, some babies will refuse ever to nurse without the shield. Use a nipple shield for entire feedings only if (1) a lactation professional makes sure that the baby is getting enough milk while you're wearing the shield, or (2) you use a fully automatic electric pump after each nursing to guarantee that your breasts are being well emptied, and you have the baby weighed every few days to make sure he is gaining at least an ounce a day.
6. If after 24 hours your baby still has not latched on with strong suction, supplementary feedings should begin. Express your milk at least eight times a day, and feed the baby the expressed milk.
7. If you are discharged from the hospital and your baby still is not nursing, use a fully automatic electric pump and keep giving your milk to the baby.
8. Continue short practice sessions several times a day. Some babies do better on a soft or empty breast.
9. Get lots of support and encouragement. If possible, see a lactation professional.
10. Be patient and persist. Many babies with sucking problems do overcome them sometime during the first ten days, but a significant number improve at about one month of age.

Fussiness and Excessive Night Waking

It can come as a surprise when your baby suddenly becomes fussy after spending most of his first few days sleeping. It is difficult to listen to your baby's cry; it may feel like an alarm going off in your body. Sometimes parents are told it is healthy for babies to cry, or that they will become spoiled if tended to every time they fuss. Comforting your infant and responding to her needs is very important to her well-being and her development of trust. Babies are really unspoilable.

Newborns cry for a variety of reasons. Often they are fussy their first night home from the hospital. They may be hungry as often as every hour, especially when the milk is just starting to come in, or when feedings have been limited because of their sleepiness or for other reasons. Some babies seem to need more sucking time than others. Some seem to pass a lot of gas, which causes them discomfort. Many newborns become upset when they are not kept snugly wrapped. Perhaps they miss the close, secure feeling of the womb.

Then there are the babies who sleep most of the day and wake frequently during the night. These babies are said to have their days and nights mixed up.

Coping Measures for Fussiness

1. Nurse your baby on demand, or at least every two to three hours for at least 15 to 20 minutes at each breast.
2. Massage your breasts while you nurse to encourage the milk to let down.
3. Burp the baby after he finishes at each breast. This will help prevent swallowed air from passing through the intestines and encourage him to nurse longer. If your baby is passing a lot of gas, you may need to burp him a few times during each feeding. See page 9 if you are having difficulty burping the baby.
4. Burp your baby after he uses a pacifier. Avoid using stuffed bottle nipples as pacifiers as these cause excessive air swallowing.
5. Wrap the baby snugly in a light blanket after feeding.
6. Avoid water or formula supplements. Perhaps you have nursed your baby but he acts as if he is still hungry. You can, certainly, offer him the breast again. But sometimes newborn babies will stay awake after a feeding and behave as if they need to suck longer even though their bellies are full. If the baby frequently seems unsatisfied, refer to "Underfeeding and Weight Loss," page 44. Most young infants will take water or formula if it is offered, even when they have had enough breast milk, but supplementing often leads to problems.

If your baby does not seem content after nursing, feel free to nurse him some more, or try comforting him next to your body. Rocking or walking with the baby for a while will probably keep him content. In an hour or two, nurse him again.

Coping Measures for Excessive Night Waking

Nurse your baby every two to two and a half hours during the daytime and evening. If the baby is sleeping through feeding times, see "Sleepy Baby," page 32.

Underfeeding and Weight Loss

During the first week, you may wonder if your baby is getting enough to eat. You may worry about whether the milk is adequate—especially if the baby seems to be nursing all the time or is fussy after feedings. Some mothers wonder if their milk has dried up when they observe the normal softening of the breast that occurs as the initial engorgement recedes.

Seeing if the baby will take a bottle of water or formula after nursing is not a reliable method of determining if he is getting enough breast milk. Most babies will take a couple of ounces of water or formula if it is offered, even when they have had enough milk from the breast.

A baby can lose too much weight, though, when the milk doesn't come in by the third or fourth day, when nursing is infrequent, or when he has had trouble latching on and nursing well during the period of initial engorgement. Excessive weight loss can also occur when a mother uses a nipple shield over her nipple for nursing, when a newborn has a faulty suck, and, certainly, when a baby is sick. Sometimes laxatives the mother has taken can cause a baby to have excessive bowel movements and to lose weight or gain too slowly.

Signs of adequate milk intake are listed on pages 10-11. If you and your baby don't show all these signs, have him weighed. If you find that your baby has lost 10 percent or more of his birth weight within the first five days after birth, or if he isn't gaining an ounce per day after the fifth day, take the following measures.

Treatment Measures for Underfeeding

1. If possible, see a lactation professional.
2. To estimate the amount of milk you are producing and to increase your milk supply, obtain a fully automatic electric breast pump. Any other pump would be inadequate for accurately estimating milkproduction and would be less helpful in increasing a low milk supply.
3. Estimate your milk production by pumping your breasts instead of nursing. If you are pumping one breast at a time, pump each breast twice, for a total pumping time of 20 to 25 minutes. If you have a double-pump collection kit, use it for a total of 12 to 15 minutes. Feed this milk and any necessary formula to your baby. Exactly two hours after the completion of this pumping, pump again. You may very well get less milk at this second pumping than at the first. Multiply the number of ounces collected at the **second** pumping by 12. This will give you an estimate of how much milk you are producing over a 24-hour period; if you collect 1½ ounces, for example, you are producing about 18 ounces per day.
4. If you determine that you have enough milk for your baby and yet she has not been gaining well, it may be that she is not taking all of the milk available at some or many of her feedings. This can happen with newborns who were born prematurely, who tend to drift off to sleep while nursing, or who have sucking difficulties.
5. After you have estimated your milk production, go back to nursing your baby. Be sure to nurse her at least eight times in every 24 hours. This may mean waking her for feedings. Wake a sleepy baby every two and a half hours (measured from the start of one nursing to the start of the next) during the day and evening, and every three to four hours in the night. Nurse your baby for 10 to 15 minutes at each breast. Frequent nursings of moderate duration are more effective in increasing milk production than lengthy but infrequent nursings.
6. Pump your breasts right after each nursing to stimulate further milk production. Unless you have a double-pump kit, pump each breast for five minutes, then return to each breast a second time for a few more minutes. Pumping both breasts at the same time is more effective in stimulating increased milk production and also takes less time. Use a double-pump kit for 5 to 10 minutes after nursing.
7. After pumping, feed the baby whatever breast milk you've collected along with any necessary formula. If the baby needs supplemental formula, divide the amount of supplement needed daily by the number of feedings the baby is getting each day (usually eight). A baby who needs 3½ ounces of formula, for example, should get about ½ ounce after each of her eight daily nursings. The goal is to offer about the same amount of breast milk and formula at each feeding so that the baby wants to nurse at regular intervals.
8. Consider using fenugreek to stimulate greater milk production. Fenugreek is a fragrant seed that is used as the flavoring

ingredient in artificial maple syrup. You can make a tea from the seeds, but more convenient and effective is the capsule form, which is available in most health-food stores. Mothers who take two to three capsules three times a day typically notice an increase in the milk supply within one to three days. Although fenugreek capsules are usually used for just several days, some mothers have continued to use them for weeks or months without any difficulties. Fenugreek capsules cost about seven dollars for a bottle of 100.

Fenugreek is generally harmless, although you will probably notice that your sweat and urine take on a distinct odor of maple. Rarely, mothers taking fenugreek report having diarrhea, but it quickly subsides when the fenugreek is stopped. There have also been reports of some asthmatic women developing symptoms while taking fenugreek.

Blessed thistle is also helpful in stimulating milk production. Like fenugreek, this herb is available in capsule form. The typical dosage is three capsules (390 milligrams per capsule) three times a day. Blessed thistle and fenugreek can be safely used together.

9. Consider using a pharmaceutical drug to augment your milk production. Metoclopramide (Reglan) is available in the United States primarily for gastric reflux. Although the U.S. Food and Drug Administration has not approved it for the purpose of stimulating milk production, several studies have shown the drug to be effective and safe for increasing milk supplies. The typical dosage is 10 milligrams every 6 to 8 hours for 14 days. Metoclopramide has not been shown to cause any problems for a nursing baby—in fact, it is occasionally prescribed for infants. It may, however, make the mother sleepy. More worrisome side effects, such as agitation, are uncommon; when they occur, the drug should be discontinued. If taken longer than a few weeks, metoclopramid can lead to depression that may not resolve by simply discontinuing the medication. It should therefore not be taken for more than two courses.

   Another drug that has come into favor for increasing milk production is domperidone (Motilium). It apparently works by stimulating the pituitary gland to produce more prolactin, the hormone that stimulates the breast to produce milk. The typical dosage is 20 milligrams four times per day, although some professionals recommend starting with 10 milligrams four times per day for the first week.

Although domperidone is marketed only as a treatment for disorders of the gastrointestinal tract, several studies show that it safely increases milk production, and the American Academy of Pediatrics has approved the drug (as well as metoclopramide) as safe to take while nursing. Because domperidone does not enter the brain tissue in significant amounts, it has far less frequent side effects than metoclopramide. Possible side effects in the mother—headache, abdominal cramps, and dry mouth—are extremely uncommon. Very little of the medication enters the breast milk—less, in fact, than the amount babies are given directly as treatment for gastric reflux. (At this writing, the U.S. Food and Drug Administration has just issued a warning about domperidone because of several reports of sickness after the drug was administered in high intravenous doses as treatment for gastrointestinal disturbances. According to Thomas Hale, a professor of pediatrics and pharmacology at Texas Tech University School of Medicine, this use of the drug caused blood levels 80 to 150 times higher than that of nursing women who take domperidone orally in normal doses.)

Domperidone is available in most countries of the world. Although it is not manufactured in the United States, it can be made here by special compounding pharmacies. But it is much less expensive, and available without a prescription, through Vanuatu in New Zealand.

10. Find a supplemental feeding method that suits you. Many lactation professionals, fearing bottle feeding would interfere with the baby's ability at the breast, suggest using a nursing supplementer, a cup, a soft tube, a finger, or an eye dropper. If one of these methods is recommended to you and it works well, terrific. But if you find it too frustrating or time consuming, use a bottle. After the first few days of breastfeeding, supplementing by bottle rarely causes "nipple confusion."
11. Weigh your baby every few days to make sure that she is gaining well. After each weighing, re-estimate her milk needs, because as she gains weight her milk needs will increase. Two hours after your last pumping, express your milk instead of nursing, then re-estimate your milk production. Hopefully it will also have increased so that you can decrease or even eliminate any formula supplementation.
12. Once your baby is gaining well, her nursing seems more vigorous, and you are supplementing nursings only with your breast milk, you might try eliminating some of the supplement. For a few days,

offer the baby only half of the milk that you are expressing, and freeze the rest. If the baby gains well over these few days, continue pumping, but don't offer her any of the expressed milk. If the baby continues to gain an ounce a day without any supplement, gradually stop pumping. Continue to have your baby weighed weekly.

If treatment fails. Although the technique just outlined will normally reverse a case of underfeeding right away, sometimes, when breast engorgement has been severe and little milk has been removed during this critical period, the decline in milk production can be difficult to reverse. In unusual instances, a mother fails to produce enough milk. This sometimes happens to women who have had breast surgery, particularly if the surgical incision was made around the areola. Other women who cannot produce milk are those with insufficient glandular (milk-producing) tissue, or "hypoplastic" breasts (see page 12).

In any of these situations, lack of support from family, friends, and health professionals can only make matters worse. But even with all of the best information and support, things sometimes don't turn out as we hope. If after giving breastfeeding your best effort you end up having to bottle-feed, you have not failed as a mother. Be proud of your efforts to nurse, and concentrate on providing your baby with all of the cuddling and loving that you can. Detailed information about formula and bottle feeding can be found in *The Nursing Mother's Guide to Weaning*.

Some mothers with insufficient milk production have found that continuing to nurse with a nursing supplementer has been a rewarding experience. Others have found nursing supplementers to be cumbersome and frustrating. Another option, particularly if the baby has become frustrated at the breast, is to bottle-feed and then nurse. "Comfort nursing"—nursing just after bottle feedings, in between bottle feedings, or during the night—may be a pleasant experience for both mother and baby.

The Learning Period: The First Two Months

AFTER THE FIRST WEEK, YOU MAY ALREADY BE feeling energetic and confident in your abilities as a new mother—or you may be exhausted, overwhelmed, and perhaps troubled with some aspect of breastfeeding. In any case, it is important to realize that the first two months after giving birth are a time for adjustment and learning. Mothers normally have questions and concerns about themselves, their babies, and nursing during this period.

Now That You Are Post Partum

Caring for Yourself

The postpartum period is the six weeks after birth in which all of the many changes of pregnancy are reversed. Virtually every system in your body will go through some readjustment. As your uterus shrinks in size and the inner lining is shed, a new layer is formed. The vaginal flow, or lochia, decreases in amount and progresses to pink or brown and then to white. Many women continue bleeding throughout the first month. Intermittent spotting is common. Too much activity may cause the lochia to become heavier and turn red again—a signal that you should slow down.

If you have had a vaginal birth, your vagina, perineum, urethra, and rectum have undergone considerable stress. Frequent warm baths will speed healing and help relieve discomfort—unless you have hemorrhoids, in which case ice packs may be preferable. Menstrual pads soaked with witch hazel and then frozen are very soothing for hemorrhoids.

Kegel's exercises will help this area return to normal by strengthening the entire pelvic floor. These exercises are simple and can be done anytime, anywhere. Several times a day, tightly squeeze the muscles around your anus, then around your vagina and urethra. Gradually work up to 100 "kegels" a day.

If you have had a cesarean birth, keep in mind you are recovering from major abdominal surgery. Most likely, you will need to take pain medication during the first week or so at home. You may perhaps be bothered by an uncomfortable feeling that your abdomen may fall out. A lightweight girdle can provide some welcome support.

Constipation is a common complaint after giving birth. It can best be prevented by drinking plenty of fluids, adding fiber to your diet, and getting regular exercise. Be aware that some laxatives could

affect the baby through your milk, causing cramping, excessive stools, and even weight loss.

Night sweats are very common in the first few days after birth, and they sometimes continue for several weeks.

Most women experience emotional changes during the postpartum period. Anxiety, moodiness, and irritability are common responses to the hormonal changes that occur after giving birth, as well as to the tremendous responsibility of caring for a new baby. Some mothers notice other postpartum "symptoms" such as forgetfulness, inability to concentrate, and difficulty expressing thoughts. These problems seem to pass with time. If you fall prey, though, to exhaustion, poor nutrition, and isolation from other adults, depression may be the result.

Starting at approximately six to twelve weeks after birth, some women experience generalized hair loss (*telogeneffluvium*). Because of the hormonal changes following birth, hair follicles simultaneously move from the growing phase (which they were in during pregnancy) to the resting phase of their development. Postpartum hair loss is seldom severe, and women never go bald because of it. The period of hair loss lasts about three to six months. It has no relationship to breastfeeding.

Because of the rapid physical changes of the post-partum period and the tremendous amount of time and energy needed to care for and nurse a baby, rest should continue to take high priority for all new mothers. Lack of rest can slow your recovery from the birth and may lead to tension, inability to cope, poor appetite, and depression. Be sure to take at least one nap every day during these important first weeks. Do essential household chores and activities while the baby is awake so that you can nap together. Getting plenty of rest now will contribute greatly to your sense of well-being and your breastfeeding success.

After a couple of weeks some light exercise can do much to renew your energy. A brisk twenty-minute walk with the baby can be invigorating; the fresh air will do you both good. Many community centers offer exercise programs for new mothers. Often the babies are included in the exercises, and sometimes infant care is provided. Despite recent claims that exercise causes lactic acid to build up in breast milk, and babies therefore to refuse to nurse, moderate exercise has little or no effect on the composition or volume of breast milk. With whatever activity you choose, however, you will want to start out slowly.

You may feel isolated as a new mother, especially if you have left work or school—and most of your friends—to care for the baby. You need adult companionship. Check with your childbirth educator or public-health nurse about groups for new mothers. Attending La Leche League meetings, taking a mother-baby exercise class, or socializing with women from your childbirth class are excellent ways of getting out with the baby and getting to know other new mothers.

New mothers' groups provide opportunities for socializing as well as learning about infant development.

Your Nutritional Needs

Drinking enough. Maintaining an adequate intake of fluids is usually not a problem for the nursing mother. Most women are naturally more thirsty while they are breastfeeding. Contrary to popular belief, forcing fluids beyond satisfying natural thirst does not increase milk production. But when a nursing mother does not drink at least six to eight glasses of fluids every day, dark, concentrated urine and constipation usually result. She may need to make a conscious effort to increase her fluid intake.

Eating well. Provided you established good eating habits during pregnancy and gained an adequate amount of weight, you probably won't need to change your diet much at all. Nursing mothers are often told to add about five hundred calories, including 65 grams of protein, to their pre-pregnancy diets. Recent research, however, indicates that many mothers may not need this much food, so don't feel you must eat more than you want. You can get extra nutrients in between-meal snacks, perhaps during nursings: half a sandwich and a glass of milk, three glasses of juice, or one-half cup of shelled peanuts will supply about five hundred calories. Some mothers experience a temporary loss of appetite during the first couple of weeks after delivery. Eating smaller, more frequent meals or snacks may be more appealing than three big meals each day.

You may feel discouraged that your shape is not back to normal. The clothes in your closet may seem as if they belonged to someone else. Although you lost some weight when you delivered, you are probably still pounds away from your usual weight. During the early months of breastfeeding, this extra fat is a useful energy store. If you let your appetite guide you as you continue nursing, you will probably lose the excess weight gradually and feel good while doing it. Dieting during the early weeks is not a good idea.

If you like, you can estimate your daily caloric needs by multiplying your current weight by 15. Add 500 to your total to meet the caloric needs of nursing (if you are nursing twins, add 1,000 calories).

Example:

135 pounds
x 15
2,025 calories
+ 500 calories
2,525 calories

Don't expect to be able to get into your jeans for several weeks, at least.

If you are a moderately active woman, you can expect to lose a pound every two to three weeks on this diet. If you are very active and have no problem controlling your weight, or if you burn calories slowly, you will need to adjust the figures somewhat: multiply your weight by 17 (high activity) or 13 (low activity). The minimal safe food intake for a nursing mother of average size is about 1,800 calories per day.

Low-carbohydrate diets are not recommended while nursing. Whole grains and other high-carbohydrate foods supply nursing mothers with vitamins, minerals, and energy. Low-carbohydrate diets are dehydrating, and they often cause constipation, fatigue, and sleeping problems.

Milk production is largely independent of nutritional intake during the first few months of breastfeeding. This is partly because the fat accumulated in pregnancy is available as a ready supply of calories. When a mother's diet is inadequate, however, milk production usually continues at her expense—leading to fatigue, listlessness, and rapid weight loss.

Some women have trouble finding time to fix nutritious meals for themselves when they are at home alone with the baby. If you find yourself in this situation, start the day with a good breakfast, and then snack throughout the day on nutritious foods such as hard-boiled eggs, leftover chicken or beef, cheese, peanut butter, yogurt, seeds, and nuts. Don't forget the fiber: whole-wheat bread, whole-grain crackers, and fruits and raw vegetables will provide it. Some mothers have developed their own favorite recipes for high-energy blender drinks using ingredients such as milk, yogurt, nuts, and bananas or other fruits.

Avoid snacking on foods or drinks that are high in sugar. Refined sugar provides only "empty" calories—empty, that is, of vitamins and minerals. Soda, cookies, and candy will not provide sustaining energy and may diminish your desire for more nutritious foods.

Mothers who are vegetarians can certainly maintain a diet to support their nutritional needs. But since vitamin B_{12} is found only in the animal kingdom, deficiencies may occur when a mother maintains a "vegan" diet, excluding eggs and milk products as well as meat. Supplementation with up to 4 milligrams of vitamin B_{12} per day is recommended.

Although most nutritionists recommend that a nursing mother drink three 8-ounce glasses of milk a day, there is no need to drink milk if you don't like it or can't tolerate it. A woman's bone density tends to decrease somewhat during lactation even when her calcium intake is relatively high. This causes no long-term harm. The bones grow denser again after weaning, and some studies suggest that women who breastfeed actually reduce their risk of developing osteoporosis later in life.

Still, nutritionists recommend that breastfeeding women consume 1,000 milligrams of calcium per day. If you don't drink milk, make sure you're getting enough calcium from other sources, such as those listed in the table below.

Serving	Milligrams calcium
yogurt (8 oz.)	288
cheeses (1 oz. cheddar or swiss)	222
cottage cheese (½ cup)	110
tofu (½ cup)	68
corn tortilla (1)	42

Although dark green vegetables in general are rich in calcium (100 milligrams per half cup), the calcium they provide is poorly absorbed by the body. Broccoli is the one exception to this rule. If you do not use dairy products at all, then calcium supplements may be necessary. The least expensive supplement, with the highest concentration of calcium, is calcium carbonate. Avoid bone meal and dolomite, as some types have been found to be contaminated with lead.

Dietary supplements. If you are well nourished, vitamin supplements are unnecessary while you are nursing, although you may need iron supplements if you are anemic after birth. Also, some nursing mothers develop vitamin B deficiencies, experiencing depression, irritability, impaired concentration, loss of appetite, and tingling or burning feet. A daily B-complex supplement is often prescribed to reverse these symptoms.

Sometimes nursing mothers are advised to take brewer's yeast, a natural source of B vitamins, iron, and protein. Some mothers feel it improves their milk supply or increases their overall energy level. Health-food stores carry brewer's yeast in a powdered form that can be mixed with juice or milk.

If you decide to take vitamin supplements or brewer's yeast, remember that they are no substitute for a varied diet of nutritious foods, and in large quantities they can sometimes be dangerous. There have been reports of fussiness in babies whose mothers take brewer's yeast or large doses of vitamin C. Vitamin B_6 supplements in large doses have been reported to reduce milk production.

Foods and other substances you may be wondering about. There are no foods that should be routinely avoided by nursing mothers, but occasionally a baby will be bothered by something the mother has eaten. Some babies fuss for up to 24 hours after their mothers have eaten garlic, onions, cabbage, broccoli, brussels sprouts, cauliflower, chiles, or beans. Citrus fruits and their juices, chocolate, and spices such as chili powder, curry powder, and cinnamon can also bother young nursing babies. If your baby has unusual and persistent symptoms such as sudden refusal to nurse, vomiting, diarrhea or green stools, gassiness, redness around the anus, fussiness at the breast, or colic symptoms, see "Concerns about the Baby," page 74.

Caffeine taken by the mother has been known to cause irritability and colic symptoms in some babies. Caffeine is present in coffee, tea, and many soft drinks. You may want to limit your intake of these beverages.

An occasional glass of wine or beer is not believed to harm a nursing infant. Because alcohol passes through the breast milk, however, moderation is essential.

Mothers who smoke have lower levels of vitamin C in their milk than nonsmokers. Breathing cigarette fumes increases a baby's risk of contracting bronchitis and pneumonia, and perhaps of succumbing to crib death. If you smoke, try to limit the amount, and don't do it around the baby.

Nursing Your Baby

Your Nursing Style

During the early weeks, each mother develops her own style of nursing. Many women feel comfortable putting their babies to breast whenever they signal the desire to nurse. Others expect their babies to fall into a predictable feeding schedule. They may be troubled when their babies nurse irregularly or want to nurse again soon after being fed. These mothers may worry that perhaps they have too little milk or that it is somehow inadequate. Sometimes they feel they must hold the baby off until a certain number of hours have passed since the last feeding. But the breasts do not need to rest for any period of time to build up a supply for the next feeding; they produce milk constantly. The expectation that a baby should nurse on some type of a schedule usually leads to frustration for both mother and baby—and not uncommonly to breastfeeding failure.

The typical newborn infant nurses between eight and twelve times in a 24-hour period, or about every one to three hours. Because of the ease with which breast milk is digested, nursing infants have been described as continuous feeders. Not only must a baby nurse often to satisfy her hunger and stimulate an adequate milk supply, but she also seeks out the breast to satisfy her needs for sucking, security, and comforting.

It is a common misconception that the breast empties in a certain number of minutes, and that a baby should be taken from the breast after those minutes have elapsed. In fact, most mothers experience the release of milk several times during a feeding. The length of time required to complete a feeding varies from baby to baby. The "all-business" nurser, who swallows continuously with few pauses, may be done in ten minutes, whereas the "dawdler" may take up to 45 minutes. The length of nursing time may vary in the same baby from feeding to feeding. Before long, most mothers can tell when their babies have had enough.

Some babies nurse from only one breast at a feeding some or most of the time. This is fine so long as the baby seems satisfied and is gaining weight adequately. You may prefer to offer only one breast per feeding, in fact, if you have an abundant milk supply. Your baby is more likely to drain the breast completely this way, and complete drainage helps prevent plugged milk ducts and breast infections. Your baby will also be sure to get the rich hind milk, which is produced only as a feeding comes to a close.

I strongly recommend that your baby be weighed at 10 to 14 days of age. Although many infants are not scheduled for a routine well-baby exam until three to four weeks of age, a weight check at two weeks can be very beneficial. If the baby is back to her birth weight or beyond, you can be reassured early on that your nursing relationship is progressing well. On the contrary, if the baby has not yet regained her birth weight, you can usually correct this quite easily. When a poor weight gain is not discovered until three or four weeks, it is more likely to upset everyone and may be harder to correct than it would have been at two weeks.

You may find that nursing is the most enjoyable part of your day—a time to sit back, relax, and simply enjoy being with your baby. But it may be difficult at times for you to break away from what you are doing or sit still long enough for the baby to have a leisurely nursing. It may help to make a special little nursing area for yourself—or two or three nooks in different parts of the house. You might want to include a book, some magazines, or a note pad within reach. Having the phone nearby may also be handy. Some mothers make a point of getting a snack or something to drink just before sitting down to nurse.

Many babies seem to get hungry whenever food is served. If you usually find yourself nursing while trying to eat dinner, you may find a baby swing handy. Some parents have found that taking the baby for a walk just before dinner lulls her to sleep so that they can eat without interruption.

Your Milk Supply

During these early weeks your milk production may seem somewhat erratic. At times your breasts may feel as if they are bursting with milk. At other times you may worry that there is not enough milk, especially if your breasts seem empty and your baby wants to nurse all the time. Many mothers notice this happening around two to three weeks and then again at six weeks, when a baby normally experiences appetite spurts and nurses more often to stimulate increased milk production. You can expect fluctuations in your milk supply as production becomes regulated according to the baby's demands.

By six to eight weeks after birth, many mothers notice that their breasts seem smaller or feel less full. This does not usually mean that less milk is being produced, but only that the breasts are adjusting to the large amount of milk within and the baby's feeding pattern.

Some mothers misinterpret their babies' increased demands and their own softer breasts, and begin offering supplemental bottles. For most mothers and babies, this marks the beginning of the end of breastfeeding. The mother begins to assume that she cannot make enough milk for her baby, and she offers more and more formula instead of allowing the baby to increase her own supply of milk. After receiving formula the baby sleeps longer and nurses less often. He becomes increasingly frustrated at the breast as his mother's milk supply dwindles. For these mothers and babies, breastfeeding is soon over.

Some mothers try to satisfy their babies' hunger with solid foods. Introducing solids during these early weeks is also inappropriate, since young infants are both physiologically and developmentally unable to manage them. Their digestive systems and kidneys are not mature enough to handle cereals and other baby foods. Infants may develop allergies to solid foods given during this period because their immune systems are still immature.

Fluctuations in the fullness of your breasts and in your milk supply will probably pass by the end of the second month. In the meantime, you can be reassured that your milk supply is probably fine if you are nursing at least eight times in each 24-hour period and letting the baby suck for as long as he wants. If you are worried about your milk supply, though, have your baby weighed. A weight gain of at least an ounce a day will tell you that your baby is getting plenty to eat. If you have additional concerns about your milk supply, see "Underfeeding," page 87.

Scheduled Feedings

In recent years, some parenting books and classes have promoted a philosophy of scheduled breastfeeding. Called "Parent Directed Feeding," the program teaches parents to feed babies on a rigid three- to four-hour schedule and to eliminate nighttime feedings at an early age. The purpose is to relieve parental anxiety and instill a sense of order and discipline in the infant. Although most parents like the idea of predictable, widely spaced nursings and full nights of sleep from the early weeks on, these practices are often associated with low milk production, poor weight gain in the baby, and early weaning. Some babies subjected to this method have become dangerously thin and dehydrated.

Babies do best if they are nursed when they seem hungry. Parent Directed Feeding fails to take into account two important facts about breast milk and breastfeeding. First, nature has designed breast milk to be taken frequently. Low in protein, it is easily and quickly digested. Second, a mother's milk supply depends on frequent, complete drainage of the breasts. If she nurses fewer than seven times in a 24-hour period, her milk production generally declines. Although some mothers can meet their babies' needs with fewer than seven daily feedings, most cannot.

The American Academy of Pediatrics, and every other organization that supports breastfeeding, recommends that babies be fed whenever they show signs of hunger.

Infant Dietary Supplements

Vitamins. Because of recent reports of rickets among American infants, the American Academy of Pediatrics (AAP) now recommends that all children, including babies who are exclusively breastfed, consume at least 200 International Units of vitamin D per day beginning no later than two months after birth and continuing through childhood and adolescence. Since all infant formulas, like commercially produced cow's milk, are fortified with vitamin D, babies fed at least 500 milliliters (17.6 ounces) of formula daily get as much vitamin D as the AAP recommends. For exclusively breastfed babies, vitamin D is available in an over-the-counter liquid supplement, Tri-Vi-Sol, which also contains vitamins A and C. Cod liver oil, a supplement much hated by children of generations past, also contains vitamins A and D.

Rickets is a bone-softening disease most commonly caused by insufficient exposure to sunlight. Sunlight, not food additives or supplements, is "the biologically normal and most common way for humans of all ages to develop adequate levels of the hormone 'vitamin D,'" according to Cynthia Good Mojab, a research associate at La Leche League International. The amount of sunlight exposure needed to prevent vitamin D deficiency depends on such factors as latitude, season, altitude, weather, time of day, and air pollution. It also depends on how much skin is exposed, whether sunscreen is applied (since sunscreen prevents vitamin D production), and skin pigmentation. Virtually all recent cases of rickets have occurred in dark-skinned babies.

These cases of rickets are probably due in part to parents' overreaction to warnings about skin cancer. All humans, babies and adults alike, need to spend time in the sun. The question of how much time was explored in a study of white, exclusively breastfed babies under six months of age in Cincinnati, Ohio. The babies achieved adequate vitamin D levels when exposed to sunlight for 30 minutes per week while wearing only a diaper (or four to five minutes a day, on average) or for two hours per week while fully clothed without a hat (or about 17 minutes a day, on average). Infants living further north than Cincinnati, which is situated at latitude 39° N, may need more sun exposure than this; infants living closer to the equator may need less. Dark-skinned infants may need more sun exposure than light-skinned infants, but researchers have yet to ascertain this. For all babies, the sun exposure must be direct; sunlight that has passed through windowpane glass, Plexiglas, or almost any other plastic does not allow the body to produce vitamin D because these materials absorb ultraviolet B radiation.

Experts agree that vitamin D supplementation is important for infants at risk of a deficiency—because they are rarely taken outdoors, because they are kept covered with clothing or sunscreen, or because they live at high latitudes. But the idea of giving supplemental vitamin D to all breastfed babies is quite controversial. According to Cynthia Good Mojab, no one has investigated the potential risks of vitamin D supplementation, such as aspiration of the supplement, harmful changes in the baby's gut, or increased susceptibility to infection. Since vitamin D is available in the United States only in combination with other vitamins, studies must include the risks of supplementing those vitamins, too.

If you want to avoid giving your baby vitamin D supplementation, you have several choices. While you're pregnant, you can get plenty of sunshine yourself; this will ensure that your baby is born with enough vitamin D stores to last two months even if she is never exposed to the sun. You can supplement the vitamin D your body makes with that available in a few foods naturally (salmon, sardines, herring, and eggs) and in others through "fortification" (especially milk). After your baby is two months old, you can maintain her vitamin D level by giving her some time in the sun most days. If you're not sure she is getting enough exposure to sunlight, you can ask your doctor to measure the level of vitamin D in her blood to determine whether supplementation is warranted.

Iron. The full-term newborn has sufficient stores of iron for the first six months after birth. The small amounts of iron in breast milk are very well utilized by the nursing infant, so iron supplementation is unnecessary. Furthermore, iron supplements can interfere with the protective properties of breast milk. The premature infant, however, is likely to use up her iron stores earlier than the full-term infant.

Supplemental iron is recommended for the premature infant beginning at two months of age or earlier.

Fluoride. Fluoride given from infancy is believed to reduce cavities 50 to 65 percent during childhood. Even though a mother may drink fluoridated water, little fluoride reaches the baby through the breast milk. The American Academy of Pediatrics therefore recommends that a baby receive fluoride supplements of 0.25 milligram per day, unless she is being fed formula mixed with fluoridated water.

Some authorities, however, believe fluoride supplementation is unnecessary for the breastfed infant and point out that too much fluoride can cause spotting of the tooth enamel. Additionally, some infants are reported to become fussy and irritable and to have gastrointestinal upsets after being given fluoride.

For these reasons, the American Academy of Pediatrics now recommends delaying fluoride supplements until a baby is six months old. Fluoride is available by prescription, either alone or in combination with vitamins A, C, and D (which most breastfed infants do not require).

Life With Your Baby

Illnesses: Yours and the Baby's

When you come down with a minor illness such as a cold or flu, you need not interrupt breastfeeding. Most likely your baby will have already been exposed to the virus that caused you to get sick. In fact, the antibodies you produce against the illness will reach the baby through the milk and may protect him from getting the same sickness. Even though you may not feel much like eating, try to drink extra fluids to keep from getting dehydrated. Should you need to take a medication, even an over-the-counter drug, be sure to check on its safety for the baby.

Temporary weaning is also unnecessary if you suspect you have a case of food poisoning, provided your only symptoms are vomiting, diarrhea, or both.

Your milk supply may seem low during or just after an illness, but a few days of frequent nursing will usually bring milk production back to normal.

Should you require hospitalization or surgery, you can continue breastfeeding. If you know ahead of time that you'll need a hospital stay, you can pump and save milk for any time that you may be unavailable to your baby. You may be able to arrange that your baby stay with you, although the hospital will probably require that another adult be there to care for the baby. Ask if the hospital has a fully automatic breast pump for you to use when you cannot nurse; if not, arrange to bring one along, with a double-pump kit. The hospital may even have a lactation professional on staff who can assist with any breast-feeding problems that arise during your hospitalization.

You won't need to express and throw out milk contaminated by an anesthetic or pain medication. By the time you awaken from anesthesia, there will not be enough of the drug in your body to be a problem for your baby. Pain medications are also safe. If you take *The Nursing Mother's Companion* to the hospital with you, you can refer it for information on other medications.

When you are not able to nurse your baby, express your milk every two to three hours during the day and evening and as often during the night as you usually feed the baby. Ask the nurses to wake you as often as you need to pump. They should be able to refrigerate your milk in clean containers that you can take home to your baby.

Should your baby become ill, nursing should certainly continue. Breast milk is the best source of fluids and nourishment for recovery and nursing the best source of comfort. But sickness often changes a baby's nursing pattern. He may nurse more than usual, or he may lose interest in feeding.

Ear infections, sore throats, and fever blisters may make nursing painful for the baby. As long as he is nursing infrequently or is refusing to nurse, be sure to express your milk every couple of hours to keep up your supply. Colds and stuffy noses may make nursing difficult for him. Holding him upright while feeding, using a humidifier in the room, or administering saline nose drops and using a bulb syringe may make nursing more comfortable.

Fever is a sign of infection. During the first four months, a temperature above 99°F, if taken in the armpit, or 101°F, if taken rectally, should be reported to the baby's doctor. If, besides having an elevated temperature, the baby doesn't act like his usual self or he nurses poorly, he should be checked by your doctor. The severity of a fever does not always correspond with the seriousness of an illness; a high fever may appear with a minor infection and a low fever may accompany a serious infection. Because a fever may lead to dehydration, frequent nursing is very important.

Diarrhea in the breastfed baby, although less common and usually less severe than in the formula-fed baby, is characterized by frequent (12 or more per day), extremely loose or watery bowel movements. Often the stools are foul-smelling, and they may contain mucus or blood. Since babies lose a great deal of fluid with diarrhea, they can easily become dehydrated, making frequent nursing important. With

its high water content, breast milk helps replace the lost fluids. Diarrhea generally improves within three to five days. Fever, infrequent feedings, or signs of dehydration (dry mouth, few wet diapers, listlessness) are signs to notify your doctor. In cases of severe diarrhea, doctors occasionally recommend supplements of an electrolyte solution, such as Pedialyte, in conjunction with nursing.

The First Two Months: What's Normal?

During the first two months you can expect your baby will nurse between 8 and 12 times a day, including at least once at night. If your baby sleeps four to six hours at a stretch at night or takes a three- to four-hour nap during the day, she will probably want to nurse often during the next few hours to make up for the meal she missed. The baby who is nursing less than eight times in a 24-hour period or who is sleeping longer than six hours at a stretch at night is typically the infant who fails to gain enough weight during the early weeks of nursing.

Generally, eight or more wet diapers a day are a sign the baby is getting enough milk. By two weeks, most nursing infants have regained their birth weight. A gain of at least an ounce a day is normal.

The breastfed baby typically has loose, watery, or seedy stools. During the first month most infants have at least one bowel movement daily. After the first month it is not uncommon for a baby to go several days without a bowel movement. As long as the baby seems comfortable there is probably no need for concern; your baby is unlikely to be constipated or underfed. The baby who is not getting enough to eat typically has small, and usually infrequent, brown or greenish stools and is gaining less than an ounce a day.

Many mothers continue to experience dripping or spraying milk during or between nursings. But some women stop leaking altogether after the first several weeks, and most gradually notice less leakage.

At some point during the first two months you will probably start to experience the sensations of milk let-down. You may notice this tingling, pins-and-needles feeling in your breasts just before or during a feeding or at any time your baby signals you with his cry.

Occasionally babies spit up after a feeding. Some babies spit up after every nursing. This is usually due to an immature digestive system; what comes up is normally just a few teaspoons. If your baby spits up more, the cause may be certain foods or beverages in your diet (see "Spitting Up and Vomiting," page 74, and "Fussiness, Colic, and Reflux," page 76). In any case, spitting up passes with time; until it does, keep a diaper or small towel handy.

A baby cries for any of a number of reasons. She may be hungry or tired, or she may just want to suck and be held. Sucking at the breast is soothing and comforting for her. Babies usually have a fussy period in the evening. Although many theories have been suggested to explain why this is, most babies are comforted by extra nursing. Try not to assume your milk is somehow lacking. Many mothers who interpret their babies' cries this way begin supplementing with formula and soon find the babies weaned. See "Fussiness, Colic, and Reflux," page 76, for more on why babies cry and how to cope with crying.

During the appetite spurts at about two to three weeks and six weeks of age, your baby may act more fussy than usual and want to nurse more often. After a few days of frequent nursing, your milk supply will increase to meet her needs and she will return to her usual nursing pattern.

Some babies cry hard, as if they were in pain, for prolonged periods every day. They are said to have *colic*, which is just a name for extreme irritability that continues day after day—for any of a number of reasons. Some cry at the breast or refuse nursing entirely. If your baby has colic symptoms, see "Fussiness, Colic, and Reflux," page 76.

You may have heard that tending to your baby each time she cries will spoil her or will reinforce her behavior and cause her to cry more often. Nothing could be further from the truth. Babies do not cry to exercise their lungs, but because they are in need of something. If your baby's needs are met in infancy she will develop a sense of security, and she will grow to trust in you and others as well.

During these early weeks, while you are learning about your baby, caring for his needs, and learning to breastfeed, you are apt to experience some feelings of concern, confusion, and perhaps even inadequacy regarding your mothering abilities. Motherhood and breastfeeding may not be exactly what you expected. Your baby's crying and the unpredictability of his sleeping and wakeful periods may be upsetting. The baby's nursing schedule (or lack thereof) and his many needs may make it impossible to feel organized or productive. Perhaps you are disappointed by the lack of help from your health care providers. Early motherhood may also bring feelings of loneliness and isolation.

It is normal to have mixed feelings about nursing. Try to keep in mind that new motherhood brings a period of uncertainty and adjustment and that nursing, and mothering, gets easier with time.

Survival Guide for the First Two Months
Concerns About Yourself

Sore Nipples

It can certainly be discouraging when sore nipples persist beyond the first week. If this happens to you, review the information on sore nipples (page 20) in "Survival Guide: The First Week." It may be helpful to have your partner, friend, or lactation professional observe your latch-on technique and compare it with the descriptions of latch-on in "Positioning at the Breast," page 3. Don't discount the possibility that your nipples are irritated due to thrush or another dermatologic condition, as these are frequent causes of sore nipples.

If you have suddenly developed sore nipples after a period of comfortable nursing, the most likely cause is thrush. See "Thrush Nipples," page 23.

Painful, blanched nipples. Some women notice that their nipples become painful and blanched at the end of nursing sessions. Often this pain and blanching results from poor positioning of the baby at the breast. The compression of the nipples probably causes a vasospasm—a spasm in the blood vessels—preventing blood from getting to the nipples. You may be able to solve this problem by correcting your latch-on technique (review "Positioning at the Breast," page 3) and by applying warm compresses to the nipples right after nursing.

Sometimes vasospasm in the nipples results from Raynaud's phenomenon (formerly called Raynaud's syndrome), in which blood-vessel spasms, brought on by a drop in temperature, prevent blood from getting to a particular area of the body. Most commonly, Raynaud's phenomenon occurs in the fingers, typically when a person goes outdoors from a warm building on a cool day. In this case, the fingers turn white and the tips hurt. Raynaud's phenomenon affects as many as 22 percent of 21- to 50-year-old women and may be associated with illnesses such as rheumatoid arthritis.

When Raynaud's affects the nipples, it causes nipple blanching just after a feeding, probably because the ambient air is cooler than the inside of the baby's mouth. When the baby comes off the breast, the nipple is its usual color, but it very quickly turns white. This blanching is accompanied by burning pain. Then the nipple turns blue; this is caused by deoxygenation of the blood. As the blood starts flowing back to the nipple, the nipple returns to its normal color, and the mother may experience a throbbing pain. The nipple colors and types of pain may alternate for several minutes to an hour or more. The three-phase color change—from white to red to blue—suggests a diagnosis of Raynaud's phenomenon rather than poor positioning.

If you have Raynaud's phenomenon, avoiding cold is important. Your entire body needs to be kept warm. Breastfeed in a warm place, wear warm clothing, and avoid exposure to cold at all times. If you experience a painful vasospasm, applying warm, moist cloths to your nipples may help. Avoid smoking and caffeine.

Dietary supplements may help alleviate vasospasms caused by Raynaud's phenomenon. Some women have used a combination of calcium (2,000 milligrams per day) and magnesium (1,000 milligrams per day). So far, however, no studies have tested the effectiveness of this remedy. Jack Newman, a pediatrician, reports that vitamin B_6 often helps with Raynaud's phenomenon and is safe to use. He suggests a dosage of 150 to 200 milligrams once a day for four days. If the symptoms don't lessen in this much time, vitamin B_6 probably won't help at all, Newman says. But if the pain resolves, he suggests taking a reduced dose of 25 milligrams once a day until you are pain-free for a few weeks. If the pain returns with the smaller dose, you can return to the higher dose.

Various drugs have been investigated for the treatment of Raynaud's phenomenon. The most effective among them is nifedipine, which is primarily used to treat hypertension. Nifedipine is probably safe to use, since very little of the drug (less than 5 percent of the total dose) appears in the breast milk, and side effects in the mother are uncommon (the most frequent side effect is a headache). The usual dosage of nifedipine is one 30-milligram, slow-release tablet per day for two weeks. If the nipple pain returns, as it does in about 10 percent of mothers, a second course can be taken. Women rarely require more than two or three courses.

Breast Pain

For a variety of reasons, your breasts may begin to hurt during nursing or become perpetually tender or sore. If this happens, it is important to identify the cause so that any necessary action can be taken.

Engorgement can occur any time the breasts become overly full—when the baby misses a feeding, for example, or when he begins to sleep longer at night.

Most mothers begin noticing normal let-down sensations during these early weeks. Let-down may be experienced as a mild ache at the start of nursing or a tingling, pins-and-needles' sensation.

A deep pain, often described as "shooting," that occurs just after nursing is thought to be related to the sudden refilling of the breast. These pains disappear after the first few weeks of nursing. Blocked nipple pores can also cause stabbing pains.

Pain during nursing, often described as burning or stinging, is usually associated with thrush. The nipples may be pinker than usual. Sometimes a rash may be visible. See "Thrush Nipples," page 23, for additional information on causes and treatment.

Plugged Ducts

If you can feel a tender area or painful lump in your breast, the cause is probably a plugged milk duct. A plugged duct may be small or it may involve a large area of the breast that feels overly full and does not soften with nursing. The skin over the area may be reddened.

Occasionally a plug in one of the nipple openings blocks the milk flow and causes a backup of milk in the breast. If the nipple looks normal in color but you can see a white pimple ("bleb") on the face of the nipple, particularly right after the baby comes off the breast, the problem may be a plugged nipple pore. Plugged nipple pores are often associated with stabbing breast pain, especially right after nursing.

Plugged ducts are most common during the early weeks of nursing, but they can occur at any time during breastfeeding. They occur for a variety of reasons. During the early weeks and months of nursing, they frequently seem due to incomplete drainage of the breast. Mothers with high milk production, including those nursing twins, tend to be more prone to plugged ducts. Interrupting the baby's nursing to switch to the other breast before the baby signals that he is finished may lead to a plugged duct. A plugged duct may follow a missed feeding or a long stretch at night without nursing. Overly tight bras, especially underwire types, may obstruct milk flow and lead to plugged ducts. Baby carriers with tight straps can also cause this to happen.

For unknown reasons, plugged ducts seem to be more common during the winter months. Some breastfeeding specialists feel that mothers who drink an insufficient amount of fluids, who become slightly dehydrated due to a cold or flu, or who are overly fatigued may also be more susceptible to developing plugged milk ducts.

Any breast lump that does not get significantly smaller within a week should be examined by a doctor.

Treatment Measures for Plugged Ducts

1. Remove your bra if there is any question that it may be too tight or may be pressing into part of your breast.
2. Apply moist heat to the breast for 15 to 20 minutes before nursing.
3. Nurse frequently, at least every two hours. Begin each nursing on the affected breast.
4. Gently massage the breast just behind the sore area while nursing.
5. If you are following the preceding recommendations but notice no change in your breast after a feeding or two, try positioning the baby with his chin close to the plugged duct, if possible, to promote better drainage. If this doesn't work, get into the shower. With your breast well soaped, apply steady but gentle pressure behind the plugged area, pressing toward the nipple.
6. Increase your fluid intake so that you urinate more frequently.
7. When the blockage seems to be in the nipple, look for dried milk secretions or a clogged nipple pore, which may resemble a whitehead. If necessary, you can gently remove a visible plug from a nipple opening with a sterile needle. This may cause a little bleeding, but you probably won't feel any pain.
8. Be alert for signs of a developing breast infection—fever, chills, and achiness—so you can treat it promptly.

Breast Infection (Mastitis)

Up to 30 percent of all nursing women develop mastitis, or infection of the breast. It occurs most often in the first three months after birth and, interestingly, it is more common during the winter months.

A breast infection is caused by bacteria, often the same ones normally present on the nipples and in the baby's mouth. A breast infection often follows an untreated cracked nipple or a plugged milk duct. It is more likely to occur when the baby (or a pump) is ineffective at draining the breasts. Other possible causes include poor-fitting bras, skipped feedings, infrequent changing of wet breast pads, anemia, stress, and fatigue.

Since mastitis causes flu-like symptoms, women sometimes mistake it for the flu. Headache, general achiness, and a reddened area of the breast are the early symptoms; they are usually followed with fever, typically over 101°F, chills, and weakness. Usually only one breast is affected; it becomes quite tender in the infected area.

Women who promptly apply moist heat to the breast and work on getting it as empty as possible may recover quickly without antibiotics, usually in two days. In one study of women with mastitis, half used no antibiotics, and none of them suffered complications (Riordan and Nichols, 1990). I have come to believe, however, that prompt treatment with antibiotics is indicated whenever a nursing mother has flu-like symptoms and a reddened breast, especially if she has a fever. Some women have permanently lost their milk production from the

affected breast following a breast infection, usually when treatment has been delayed. Late treatment can also result in a breast abscess that may require surgical drainage. This risk is much greater if you are anemic.

Effective treatment with an antibiotic requires the right choice of antibiotic for the bacteria. The type of bacteria involved in mastitis is usually *staphylococcus aureus*, which is resistant to amoxicillin, penicillins G and V, and many other antibiotics. The two most effective classes of antibiotics against this organism are penicillins such as cloxacillin and dicloxacillin, which resist the enzyme that bacteria produce to inactivate other penicillins, and the cephalosporins, such as Keflex. Another frequently prescribed penicillin is Augmentin, an improved form of amoxicillin. Erythromycin, clarithromycin, azithromycin, and clindamycin are used in women allergic to penicillin. All of these antibiotics are safe to take while breastfeeding unless the baby is allergic to them (the allergy causes a rash).

With prompt and proper treatment, the symptoms usually subside within 24 hours. It is most important to continue nursing frequently during this period; discontinuing nursing would slow healing and might lead to the development of a breast abscess. You don't need to worry that the baby will get ill, since the infection involves only the breast tissue, not the milk. Try to identify the probable cause of the infection so you can prevent a recurrence in the future.

Mastitis in both breasts, though rare, is sometimes a sign of B-streptococcal infection, which is transmitted by the infant to the breasts. When both breasts are affected, the baby's doctor should be promptly notified so that any necessary treatment of the infant can begin.

Treatment Measures for Mastitis

1. Go to bed, if you haven't already.
2. Remove your bra if you are more comfortable without it or if there is any question that it may be too tight or pressing into part of your breast.
3. Nurse frequently, at least every two hours, and begin each nursing on the affected breast. Giving up nursing could slow healing and lead to a breast abscess.
4. If nursing is too painful or if you suspect the baby isn't draining the affected breast well, begin pumping your breasts after or instead of nursing. Use a fully automatic pump and a double-pump kit, and pump approximately every two hours.
5. Call your doctor, who will probably prescribe antibiotics. Antibiotics should be taken for the entire time they are prescribed, even though the symptoms may disappear.
6. Increase your fluid intake so you notice an increase in urination.
7. Apply moist heat to the breast for 15 to 20 minutes before nursing and intermittently between feedings.
8. Monitor your temperature. Acetaminophen tablets (such as Tylenol) or ibuprofen (such as Advil or Motrin) may help reduce your fever and discomfort.
9. Consider taking vitamin C. Some women report that a dosage of 1,000 milligrams four times a day speeds healing and recovery.
10. After you have completed a course of antibiotics, watch for symptoms of yeast growth—thrush (see page 23) or diaper rash (see page 78).

Breast Abscess

On very rare occasions, a breast infection may develop into an abscess. A breast abscess is an accumulation of pus walled off within the breast. It may occur when a mother stops nursing during a breast infection, when treatment for mastitis is delayed, or when a mother has trouble fighting off a breast infection because she is severely anemic.

A breast abscess should be suspected whenever mastitis symptoms are prolonged beyond a couple of days and a lump persists. The lump may be hard or soft but does not change with nursing. An abscess must usually be drained by a physician, either in an office or a hospital. After it is drained, recovery is rapid.

Some doctors are willing to avoid surgical drainage by performing a series of needle aspirations. This is much less invasive than opening the abscess to drain over a period of a couple of weeks.

The development and treatment of an abscess is usually a rather traumatic experience. You may be advised to stop nursing entirely, or you may doubt yourself whether you should continue. Although you need not abandon nursing completely, it may be suggested that you not nurse on the affected breast for the first few days after it is drained. In the meantime, you can use an electric pump to maintain your milk flow until the baby resumes nursing on both sides. The incision may leak milk for a short while, but it will heal and close over. I developed an abscess at six weeks after birth and went on to nurse successfully without any further difficulties.

Breast Lumps

Lumps in the breast are very common during the early weeks and are usually related to lactation.

The breast may feel generally lumpy when it is overly full or engorged. A sudden tender lump is usually a sign of a plugged milk duct or, when accompanied with fever and flu-like symptoms, a breast infection. A lump that appears just before nursing and seems to get smaller or disappear afterward is probably a small cyst that fills with milk.

Whenever a lump shows no change in size for longer than a week, it should be examined by a doctor. It is probably a harmless cyst or benign tumor; cancer is rarely the cause. But breastfeeding women with persistent lumps have been found to have breast cancer, so see your doctor for a thorough breast exam as soon as possible. If further diagnosis is recommended, you don't need to wean your baby, although a doctor unfamiliar with the lactating breast may recommend weaning. Many women have undergone mammography, ultrasound, breast biopsy, and lump removal without any interruption of nursing. Feel free to get a second opinion whenever drastic measures are recommended.

Leaking Milk

See "Survival Guide for the First Week," page 26, for basic information on leaking, dripping, and spraying milk.

After a few weeks of nursing you may notice that leaking diminishes or stops entirely. This need not be a cause for concern so long as the baby is continuing to nurse frequently and is gaining weight.

If continuing leakage is becoming bothersome, you might want to try stopping it by pressing your wrist or the heel of your hand against your nipples whenever they start to drip. You might also try LilyPadz, tacky silicone pads that can be worn without a bra.

If leaking at night continues to be troublesome, you might try nursing the baby just before you go to sleep.

Overabundant Milk

Some mothers seem to produce too much milk. Besides feeling weary of the jokes about being able to nurse twins, you may feel uncomfortably engorged much of the time. Leaking and spraying may be bothersome. Your baby may gasp and choke as the milk lets down.

Most women find this less of a problem after the first two months of breastfeeding. In the meantime, nursing your baby on just one side at each feeding should make your breasts feel more comfortable. When your baby is draining your breasts more completely they will feel less engorged, even though each is nursed on less often. Decreasing your fluid intake is not recommended. Nor is wearing plastic breast shells or pumping after or between feedings, either of which would probably increase, not decrease, milk production.

If your baby has difficulty nursing because the milk lets down forcefully, see "Pulling Away from the Breast," page 75.

Lopsided Breasts

When one breast receives more stimulation than the other, milk production in that breast increases, commonly resulting in a lopsided appearance.

Providing more stimulation to the smaller breast will usually even out the size difference between the two. Start each feeding on the smaller side for a day or so. If your baby nurses there only a few minutes, encourage her to take the smaller breast again after she has nursed at the fuller one. As soon as your breasts become closer in size, you can begin alternating the breast at which the baby begins each feeding.

Nausea or Headache

Rarely, a new mother experiences nausea when nursing her newborn. This is a biological phenomenon, not a psychological one; it is thought to be a gastric hormonal response to suckling. Eating something before nursing may help. Fortunately, nausea generally decreases in severity and frequency as nursing is established, and the problem usually disappears completely by six to eight weeks post partum.

Headaches in a new mother can have many causes: a drop in hormones in the first week post partum; low blood sugar; eye, dental, or sinus problems; allergies; or migraine. Several case reports in medical literature, however, have concerned "lactational headaches." These occur during feedings as the milk lets down and may be related to the hormone oxytocin. Some writers have said that pain relievers such as acetominophen (Tylenol) and ibuprofen (Motrin, Advil) are helpful, and that these headaches gradually become less severe and stop by two months post partum. But other writers have described cases in which relief came only with weaning.

Another type of headache associated with lactation occurs when one or both breasts are overfull. This type of headache may be a sign of an impending breast infection. Relief comes from draining the breasts well and heading off mastitis.

Regardless of the suspected cause of your headaches, you may want to consult with your doctor or a neurologist if they are frequent or severe. Keeping a headache log can be helpful in determining a diagnosis.

Depression and Anxiety

Most women go through emotional changes after giving birth. Many new mothers experience moodiness, mild anxiety, or an occasional "blue" day during the first two weeks after delivery. These feelings are due to the sudden hormonal changes that follow birth, fatigue from labor and lost sleep, and stress that becoming a mother entails. But when emotional symptoms are severe, when they

continue beyond the first two weeks after birth, or when they start later and last more than two weeks, they may indicate postpartum depression or anxiety. Many new mothers who complain that they are depressed or anxious are told that their feelings are normal and to be expected. This is not true. Post-partum emotional disorders are often misunderstood or unrecognized by family, friends, and health professionals.

As many as one out of every nine or ten new mothers experiences postpartum depression, postpartum anxiety, or both. Much rarer is postpartum psychosis, characterized by delusions, hallucinations, or extreme mental confusion. Postpartum emotional disorders are more common in women who have had a stressful pregnancy or difficult birth, previous psychological problems, or relationship difficulties. Occasionally, a thyroid disorder may mimic postpartum depression.

Symptoms of postpartum depression or anxiety usually include several of the following:

- Change in eating habits (poor appetite or overeating);
- Change in sleep pattern (difficulty falling or staying asleep, oversleeping);
- Tenseness, nervousness;
- Panic attacks with physical symptoms such as shakiness, palpitations, shortness of breath, or lightheadedness;
- Fatigue or lack of energy;
- Poor concentration, forgetfulness, or confusion;
- Crying every day;
- Feelings of hopelessness;
- Withdrawal, lack of interest in usual activities;
- Excessive worry or guilt feelings;
- Recurrent disturbing thoughts or compulsive behaviors that cause distress or take up a great deal of time; and
- Failure to keep appointments.

Symptoms that call for immediate assistance from a mental-health professional include—

- Thoughts of suicide,
- Fears of harming the baby,
- Sounds and voices heard when no one is around,
- Thoughts that seem not your own or out of your control,
- Sleeplessness lasting 48 hours or longer,
- Inability to eat, and
- Inability to care for the baby.

For any woman suffering from postpartum depression or anxiety, I strongly recommend the book *This Isn't What I Expected: Recognizing and Recovering from Depression and Anxiety after Childbirth*, by Karen Kleiman and Valerie Raskin. Many women with mild cases have helped themselves without professional assistance. Try the coping measures that follow.

Coping Measures for Depression and Anxiety

1. Tell your partner, a supportive friend, or a relative how you are feeling. Although some people may not understand, you may find valuable support close by.
2. Talk to your doctor or midwife about how you are feeling. Ask about having blood tests done to make sure something else, such as a thyroid disorder, isn't the problem.
3. Call Depression After Delivery (800-944-4PPD) to find out whether there is a postpartum support group in your area.
4. Make getting extra rest a priority; being tired makes depression and anxiety worse. Nap when your baby naps. Maximize your baby's sleep stretches at night by feeding him every two to two and a half hours during the day and evening.
5. Enlist the help of others to relieve you of some mothering and household duties. Eliminate or lessen your daily chores until you are feeling better. If you want to do some chores, set minimal goals for yourself.
6. Maintain a well-balanced diet. If you have little appetite, fix small, nutritious snacks for yourself throughout the day. Avoid all caffeine and sugary foods and beverages; these are associated with worsening symptoms. Increase your intake of foods made up of complex carbohydrates, such as whole-grain breads and cereals, potatoes, rice, and pasta. Eat more fruits and vegetables. Using powdered milk or yogurt, wheat germ, and fruit or juice concentrate, you can make nutritious blender drinks. If you find it difficult to prepare food for yourself throughout the day, your pharmacist can recommend a high-calorie nutritional supplement.
7. Take time with your appearance every day. When you get up, make a point of getting dressed, fixing your hair, and putting on a little makeup, if you like it. Pamper yourself with a facial, a new hair style, or something new to wear. Looking good helps you feel better about yourself.
8. Get some exercise every day. Many people find that exercise has an antidepressant effect. Join an exercise or dance class; many offer free child care. Take a brisk walk every day with or without the baby.

9. Nurture yourself as much as possible. Take long bubble baths, get a massage, ask your partner to hold you, or spend the afternoon watching a video or reading a light novel.
10. Make an effort to spend time with other adults. Invite friends over, join a postpartum group, or make friends with other mothers from your childbirth class. Your childbirth instructor may have additional suggestions. If you have just moved to the area, ask your pediatrician's or family practitioner's nurse for other resources.

If your distress is severe or unrelieved by these measures, consider seeking professional help. Low-cost mental-health care is available in most communities. If cost isn't an issue, ask your doctor, midwife, or childbirth educator to refer you to a therapist, ideally one who has a special interest in postpartum illness.

Depending on your symptoms, a therapist may recommend medication. Some antidepressants are safe to use during nursing; others may not be. One safe anti-depressant is sertraline, which is sold under the trade name Zoloft; when nursing mothers take this drug, it is undetectable in their babies' blood. You may be tempted to try St. John's wort, now a popular remedy for depression. This herb, however, has not yet been proven safe to use during breastfeeding.

Unfortunately, many doctors who recommend that women wean their babies before taking antidepressants do so because they don't know about recent studies on the safety of particular drugs during breastfeeding. For up-to-date information about a particular medication, you might call the University of California, San Diego, Drug Information Service at 1-800-411-8080.

Concerns about the Baby

Spitting Up and Vomiting

Spitting up small amounts of breast milk is common; some babies do this after almost every nursing. Recently, it has become common for doctors to diagnose these babies with "reflux" (see "Fussiness, Colic, and Reflux," page 76). Occasionally a baby may vomit what seems like an entire feeding. Although there may be no apparent cause, this can sometimes be traced to something the mother recently ate. Vomiting can also be a sign of infection. You will want to notify your doctor if the baby has a fever or if the vomiting continues.

When a baby continues vomiting forcefully after most feedings, you should suspect that either he is sensitive to something in your diet or he has pyloric stenosis. *Pyloric stenosis* is an obstruction of the stomach that typically develops at about two to four weeks of age. Although this condition is most common in first-born males, it can occur in females. Typically the vomiting becomes progressively worse; the baby eventually stops gaining weight, or loses weight, and may become dehydrated. In the breastfed infant the condition may go undiagnosed longer than in the bottle-fed infant, since breast milk is digested much more easily than formula. The baby's weight may not be affected until the obstruction becomes nearly complete. Frequently waves can be seen moving across the baby's lower abdomen from the left side to the right just after a feeding and prior to vomiting. X-rays confirm the diagnosis. The obstruction is corrected with a relatively simple surgical procedure.

Breastfeeding can resume within a few hours after the obstruction is removed. At this time breast milk is especially good for the baby because of its digestibility. Some mothers notice a temporary reduction in the milk supply after the baby's surgery. Rest, frequent nursing, and switching the baby from side to side during the feeding usually reverse this situation.

Pulling Away from the Breast

Babies pull off the breast while nursing for a variety of reasons. Often it is because they have had enough to eat or they need to be burped. If your baby has a cold, she may pull away because she is having trouble breathing through her nose. Try to position her so her head is elevated more during nursing. A cool-mist vaporizer may help to thin the nasal secretions so she will breathe easier.

Some babies pull away from the breast gasping and choking as the milk suddenly lets down. This is usually a temporary problem; the baby gradually learns to keep up with the rapid flow of milk. In the meantime, positioning the baby differently may help. Try sitting the baby up, using the football hold, or lying on your back with the baby's head over you. Some mothers manually express or pump milk until the initial spray has subsided. If your baby pulls away from the breast and cries or refuses to nurse, see "Refusal to Nurse" as follows.

Refusal to Nurse

If your baby pulls away from the breast crying or refuses to nurse, don't assume he is ready to wean. There are a number of possible reasons for such behavior, but when it persists it can frequently be traced to certain foods in the mother's diet to which the baby is sensitive. Typically this behavior starts when the baby is about two weeks old. He may also act fussy and have very frequent, sometimes greenish stools. Other symptoms may include gassiness, redness around the rectum, a mild rash anywhere on the body, or a stuffy nose.

Survival Guide for the First Two Months

Fussiness while nursing and refusal to nurse may occur sporadically or may increase as the day goes on. Although the baby refuses the breast, he may eagerly take breast milk from a bottle. The reasons for this are unclear.

In the past, these symptoms were generally referred to as colic. Parents were typically told simply to endure colic, since the causes were poorly understood and the symptoms were often outgrown by three to four months of age. Recently, however, the syndrome of fussiness and spitting up has been identified as gastroesophageal reflux, which is also known as GER or simply reflux. Babies with reflux cry after and in between feedings, fuss at the breast, and sometimes refuse to nurse. These reactions are most likely due to a painful irritation of the esophagus. (See "Fussiness, Colic, and Reflux" below.)

A baby who has developed a yeast infection (thrush) may also become fussy at the breast and refuse to nurse. Besides having a characteristic white coating on the insides of his lips, cheeks, or both, the baby with thrush may be gassy. There may also be a bright red, dotted or peeling rash around the baby's genitals or on your nipples. Your nipples may burn or itch.

Babies with ear infections also sometimes fuss at the breast and refuse to nurse. Although ear infections are less common in breastfed than in formula-fed babies, especially in the first two months after birth, even in this period an ear infection may accompany or follow a runny nose.

Occasionally a baby will refuse to nurse because his mother is wearing perfume or a scented deodorant.

When a baby has been fed supplemental formula and the milk supply has lessened, he may lose interest in the breast, preferring the immediate flow from the bottle.

Treatment Measures when the Baby Refuses to Nurse

1. As long as your baby refuses to nurse, express your milk every two to three hours so your supply will not be affected. Feed the baby by bottle.
2. See the next section, "Fussiness, Colic, and Reflux."
3. Check your baby's mouth and your nipples for signs of thrush. See "Thrush Nipples," page 23.
4. If you can find no reason for your baby's irritability and refusal to nurse, have a doctor examine the baby.

Fussiness, Colic, and Reflux

You may be surprised to learn how much crying a baby can do and how uncomfortable it can make you feel. The sound of a baby's cry is intended to be distressing so adults will be alerted to his needs and answer them.

Many mothers tend to blame themselves for their babies' crying, wondering if their inexperience, nervous feelings, or milk supply is somehow responsible. Keep in mind that most babies fuss and seek out the comfort of the breast when they are tired, bored, lonely, or uncomfortable as well as when they are hungry. When babies are having appetite spurts, they increase their nursing frequency for a few days to stimulate increased milk production. If you are worried that the baby is not getting enough milk, have him weighed. A weight gain of an ounce a day or more means your baby is getting enough milk (see "Underfeeding," page 87).

Some babies are extremely irritable during the early weeks, with periods of intense crying. If your baby's crying makes you feel that something is wrong, trust your instincts. By all means have your baby examined by your doctor.

Outlined below are common reasons that babies cry and suggestions for relieving their distress.

Fussiness. All babies have fussy periods during their early weeks. You will probably notice that your baby is more fussy at around two to three weeks and again at around six weeks, when most babies experience appetite spurts. Fussiness in the late afternoon or evening is typical.

Harvey Karp, a California pediatrician, theorizes that much of the fussing babies do in the early weeks results from missing the uterine environment. In *The Happiest Baby on the Block: The New Way to Calm Crying and Help Your Baby Sleep Longer*, Dr. Karp suggests that parents calm their babies through the five *S*'s:

Swaddling. Many societies have used this technique to imitate the secure feeling of the womb during late pregnancy. A baby is wrapped tightly in a thin blanket with his arms down at his sides. Keeping the arms and hands secured keeps the baby from flailing them and makes him more receptive to the other four calming techniques.

To swaddle your baby, lay the blanket out flat, turn in a corner, and place the baby's neck on the folded edge. With the baby's right arm straightened at his side, pull the right corner of the blanket tightly over his body, and tuck it under his lower back on the left side. With his left arm straight at his side, pull the bottom corner of the blanket up over the right arm and shoulder and tuck the blanket under his right side; don't worry about scrunching the baby's legs. Now wrap the left side of the blanket snugly across his body.

Side or stomach position. Although it is now known that laying a baby to sleep on his stomach raises his risk of succumbing to Sudden Infant Death Syndrome, laying a baby on his back tends to make him startle—to extend his arms and cry out as if he feels he is falling backward. To prevent startling—or the Moro reflex, as it is sometimes called—swaddle the baby and lay him down to sleep on his side, or let him rest on his stomach over your lap or shoulder.

Shushing. Loud white noise calms a baby because it sounds like the flow of blood from the placenta. The louder a baby cries, the louder the shushing he needs. Hair dryers and vacuum cleaners work as well as vocal shushing sounds.

Swinging. Swinging in rapid, small movements is also reminiscent of uterine life. The swinging should be about two to three times a second. You can swing your baby by wearing him as you walk, by rocking him, or by using a baby swing (see "Coping Measures for Fussiness, Colic, and Reflux," page 87).

Sucking. Sucking is the final technique to use in relaxing a fussy baby. You can calm a baby who is upset but not hungry either by nursing or offering a pacifier. If your baby seems to need a great deal of comfort sucking, a pacifier may be appropriate. You can introduce one when your baby is between two and six weeks old. Before two weeks a pacifier could interfere with the establishment of breastfeeding, and after six weeks your baby might be much less willing to accept it.

Diaper rash. A baby may fuss a lot if she has a diaper rash. For an entire day, apply a zinc oxide ointment (such as Desitin); expose the baby's bottom to the air as much as possible; and leave off disposable diapers or plastic pants. The rash should improve dramatically, unless it is caused by yeast. A yeast diaper rash is a dotty, red rash or a peeling rash that resembles a mild burn, typically in the genital area.

Yeast infection. Although they are common in infants, yeast infections are frequently overlooked as the cause of excessive fussiness. A baby with a yeast infection usually shows signs in his mouth—on his inner lips or cheeks and sometimes also on the tongue. This is known as thrush. The baby is typically very gassy, as the yeast is frequently present in the intestinal tract as well. The yeast may also cause a diaper rash, as described above. The mother's nipples are often reddened; they may show a rash, and they may itch or burn. One nipple may be more affected than the other.

Nystatin suspension (Mycostatin) is probably the drug of choice if your baby has a yeast infection. Because the nystatin is swallowed, the yeast in the bowel will be eliminated. Treatment with gentian violet kills only yeast in the mouth and, therefore, is not recommended for the baby who is fussy and gassy unless the nystatin seems ineffective after several days of treatment. See "Thrush Nipples," page 23, for a complete discussion of treatment measures.

Nystatin ointment can be used to treat the baby's diaper rash; it can also be used on your nipples. If your baby has no rash it would not be unusual for one to appear shortly after treatment with the oral medication. If the baby does have a rash, don't be surprised if it gets worse during the first few days of treatment.

If the baby's stools are green, he may also be reacting to certain foods in his mother's diet. See "Colic and Reflux" below.

The baby's temperament. Every baby is born with her own distinct personality. Some babies tend to be quiet, whereas others are more active. Some babies are highly sensitive to their surroundings, overreacting to any sudden stimulation. They are tense and jumpy and often fussy. They may go almost instantly from sleep to calm to full-blown crying. Once crying, they may be difficult to soothe. Although some of these babies need to be carried around or entertained continually, others may actually resist being held or cuddled.

Learning how to mother a highly sensitive baby takes time and patience. You will soon develop a sense of what your baby enjoys and what she does not, how much stimulation she can tolerate and how to help her settle down. If your baby does not enjoy touching, try not to take it personally. With time and a gradual increase in physical closeness, she will eventually be able to tolerate and enjoy being held. Most babies outgrow their early fussy months and grow to be happy children.

Colic and reflux. Colic is a catch-all term for unidentified infant discomfort characterized by periods of intense crying and apparent abdominal pain. Although the causes of colic have been much debated over the years, doctors have often dismissed it as something parents must simply endure until the baby is three to four months old, when the symptoms are expected to lessen or disappear. In the meantime, the baby is unhappy, and her mother may wonder if breastfeeding is to blame.

Recently, many babies who might in the past have been labeled colicky have been diagnosed instead with gastroesophageal reflux, which is also called simply "reflux." Reflux is the backward movement of food and acid from the stomach into the esophagus and sometimes into the mouth and out onto your shirt. Nearly all babies have episodes of reflux; most parents consider it normal for their

Survival Guide for the First Two Months

babies to "burp up" after feedings. Some babies who regurgitate frequently show no apparent discomfort. Others, however, seem to suffer painful heartburn, even if they don't spit up their milk.

The main reason babies spit up is that the lower esophageal sphincter isn't fully developed in infants. Also, babies take in a lot of milk relative to the size of their stomachs, and many also swallow a lot of air when they nurse or suck on a pacifier. When the baby burps, milk may come up with the air.

Breastfed babies generally have fewer and less severe episodes of reflux than bottle-fed babies. Sucking at the breast triggers peristaltic waves along the gastrointestinal tract; these muscular contractions help to move the milk down into the stomach and on to the small intestine. Also, human milk digests more completely and almost twice as fast as formula. The less time the milk spends in the stomach, the less opportunity there is for it to acidify before backing up into the esophagus. In addition, breastfed babies are generally fed in a more upright position than bottle-fed babies. Gravity may help to keep the milk and gastric acid in the stomach where they belong.

Still, breastfed babies can suffer painful reflux. Symptoms of this problem can include sudden or inconsolable crying, arching during feedings, refusing the breast or bottle, frequent burping or hiccoughing, bad breath, gagging or choking, frequent throat inflammation, poor sleep patterns, slow weight gain, frequent ear infections and, less commonly, respiratory problems—wheezing, labored breathing, asthma, bronchitis, pneumonia, and apnea.

Some babies with reflux want to eat all the time and therefore may grow very fast, although it may seem as if they spit up all the milk they take in. On the way down breast milk is very soothing, as is sucking itself. But if a baby overfills her stomach, her reflux symptoms can worsen. For such a baby, it may be helpful to nurse on one breast at a time; the slower flow of milk may soothe the baby's heartburn without overfilling her stomach. Some mothers have reported that pacifiers help such babies.

Other babies with reflux seem to find nursing painful. They not only cry after and in between feedings, but they fuss at the breast and sometimes refuse nursings altogether. Oddly enough, they may take the same milk from a bottle that they wouldn't take from the breast.

Many parents try to minimize reflux by keeping their babies upright or semi-upright for 30 to 45 minutes after feedings. Recent research has found, however, that putting a baby in an infant seat (elevated to 60 degrees) actually increases reflux. Reflux is reduced, the studies have found, when the baby is laid on her left side or on her stomach. But putting babies to sleep on their stomachs has been associated with a higher rate of Sudden Infant Death Syndrome. Perhaps the best idea is to carry the baby on her left side in a sling, both to minimize reflux and to soothe the baby with the motion of your body. You might also try laying the baby stomach-down on your forearm; parents say that the pressure on the belly seems to be soothing.

Jostling or other rough or fast movement of a baby after feeding may add to the problem of reflux. Burp the baby before switching breasts, but don't jiggle her. Just hold her over your shoulder or sit her upright, and pat her back gently. Let her suck at the second breast until she falls asleep.

Some babies seem to suffer more with lower belly discomfort than with regurgitation and heartburn. Besides crying, these babies' symptoms may include gassiness; stools that are very frequent or green, mucous, or even bloody; and redness around the rectum. A baby may have a stuffy nose or a rash on her face or upper body. She may want to nurse all the time.

Although streaks of blood in a baby's stool or diaper rarely indicate an emergency, for a parent they are alarming, and when they appear it's a good idea to call the baby's doctor. In most cases, however, blood in the stool results from either an anal fissure or a food intolerance. An anal fissure—that is, a small tear in the anus—usually results from constipation and straining during a bowel movement. Since exclusively breastfed babies cannot be constipated, anal fissures are unusual for them. A sensitivity or allergy to something in your diet is the more likely cause. Some doctors may say that a baby with bloody stools should be temporarily weaned from the breast and fed hypoallergenic formula instead of breast milk, but this is usually unnecessary. In most cases, the bleeding stops after the mother removes the offending food from her diet and the baby's gut has time to heal.

Something in your diet. Whether or not your baby has bloody stools, if she exhibits colic or severe reflux symptoms every day or nearly every day, you should try writing down everything you have eaten and drank during the past three days. Make notes, too, of any particularly fussy periods the baby has had during the past three days. If you are producing a lot of milk, also have your baby weighed to see how fast she is gaining. A baby who is gaining much more than an ounce a day may be having symptoms of what I call hyperlactation syndrome, which is described on page 84.

Most foods that bother breastfeeding babies, as either intestinal irritants or allergens, fall into one of several major food categories. When a baby has been fussy at particular times, a suspect food can often be identified by looking back one to two meal periods. If eating chocolate, say, seems to cause your baby's symptoms, you can try giving up chocolate and see if she does better. But because more than one food may be making your baby fussy, you might be wise to avoid all of the commonly offending foods for a while, then reintroduce them to your diet one by one. This way, you'll know exactly what bothers your baby.

THURSDAY

8:30 a.m. Grapefruit juice Prenatal vitamin Granola with milk Toast with butter	
12:15 p.m. Roast beef and cheese sandwich, with mayonnaise and lettuce Potato chips Milk	**10:30 a.m.-12:00 noon** Fussy, spitting up
3:00 p.m. Pineapple juice	**2:00 p.m.-5:00 p.m.** Crying
6:45 p.m. Chicken/green pepper stir-fry Spinach and mushroom salad, Italian dressing Rice Milk	
8:15 p.m. Chocolate frozen yogurt	**11:30 p.m.-2:00 a.m.** Very fussy, vomited

Sample chart of a mother's diet and her baby's reactions

Completely eliminating all of the following foods for three days may bring speedy relief to your fussy baby. Be sure to check the ingredients in any commercially processed food before eating or drinking it.

- **Chocolate and spices.** The major offender in chocolate is theobromide; even in small amounts, this ingredient is a potent irritant in the digestive tract of many infants. In the example given, the chocolate frozen yogurt was probably responsible for this baby's (and mother's) difficult night. Many spices and other strong flavorings, including cinnamon, chiles, garlic, and curry, can also bother young infants.
- **Citrus.** A frequently overlooked cause of digestive disturbances is citrus fruits and their juices. Oranges, lemons, limes, tangerines, and grapefruits can all bother a baby's intestines. Other strongly acidic fruits, such as pineapples, kiwis, and strawberries, affect many babies similarly. In the chart, the mother had grapefruit juice at breakfast and pineapple juice in the afternoon. Her baby may have been bothered by these.
- **Gas-producing vegetables.** Certain vegetables can also cause temporary digestive problems for young babies. These include onions, broccoli, cauliflower, brussels sprouts, cabbage, bell peppers, and cucumbers. Prepared mustard can cause a similar reaction. Onions, an ingredient in so many dishes, can cause gastric upset for a baby even when they are cooked, ingested in small amounts, or eaten as onion powder. The stir-fry dish in the chart contained one of these offending foods.
- **Cow's milk.** Some infants are allergic to cow's milk and cow's milk products including cheese, yogurt, sour cream, cottage cheese, and ice cream. Researchers have estimated that nearly half of all cases of severe reflux and colic are associated with an allergy to cow's milk. If a baby is truly allergic to cow's milk products, cutting back on how much you have will probably not eliminate the baby's symptoms. You must eliminate from your diet all dairy products, including those in commercially processed foods like creamed soups, certain types of salad dressings, and puddings; cow's milk may be identified as "casein" or "whey" on the label. Many infant formulas are made from cow's milk. The baby in the chart may or may not be reacting to dairy products.

If possible, do without medications and dietary supplements while you're avoiding these four food categories. Laxatives taken by a nursing mother can disturb her baby's intestinal tract. Aspirin and the chemical phenylpropanolamine, a decongestant, can make a baby fussy; both of these drugs are in many headache and cold remedies. Certain dietary supplements taken by the mother or given directly to the baby, such as Vitamin C, brewer's yeast, and fluoride,

have been known to cause colic symptoms. Fluoride is very helpful in preventing cavities but is best delayed until the baby is six months old.

During the three days of eliminating all the commonly offending foods from your diet, write down what you eat and drink along with observations of your baby. If the baby has particularly difficult times, look back one to two meal periods, or about two to eight hours before the symptoms began, and try to identify any suspect foods. You may find that you ate something forbidden without realizing it, or perhaps another food seems to be at fault. Other foods that can cause reactions include tomatoes, eggs, peanuts and peanut butter, corn and corn syrup, wheat (in breads, crackers, cookies, cakes, and noodles), soy (the basis of some infant formulas and an ingredient in many processed foods), apples, and bananas. If you decide to eliminate any one of these foods, you should continue to avoid the original four food categories, too. More than one food group may be affecting your baby.

If your baby is much better after the three days and having very few fussy periods or other symptoms, try adding milk products back into your diet. Have a lot of milk products early in the day and then watch the baby for 24 hours. If the baby reacts, avoid milk products completely for the next couple of days. After this period, you might experiment with small amounts of milk, cheese, yogurt, or ice cream to see which of these, if any, your baby can tolerate and in what quantity. Although some babies cannot tolerate any milk products, others do fine when their mothers have hard cheese, and some can tolerate small amounts of any milk products as long as their mothers take them only once every few days. (If you must cut dairy products from your diet completely, be sure you are taking sufficient calcium in another form; see pages 53-54). Every few days thereafter, add another food category to your diet, eating a lot at a time. If the fussiness recurs, eliminate the offending food category from your diet again. Continue adding food categories until you have tested all the foods that you had eliminated. Again, more than one food may be a problem for a very sensitive baby.

Hyperlactation syndrome. Recently researchers have identified a kind of colic that is characterized by gassiness, frequent stools, spitting up, and general discomfort and fussiness (Woolridge and Fisher, 1988). Although these babies may seem to be allergic to something in their mother's diet, they show little or no improvement with the elimination of common allergens. Typically these babies nurse frequently from both breasts and are gaining more than an ounce per day. Their mothers often have overabundant milk supplies.

Some lactation professionals refer to these symptoms as Overactive Let-down Syndrome. In fact, the underlying cause of the colic is thought to be the baby's disproportionate intake of the low-fat foremilk, the milk that is available early in the feeding. When a baby consumes large amounts of foremilk and little of the fatty hind milk, his stomach rapidly empties, dumping excess lactose into the bowel. This results in increased fermentation and colic symptoms.

Relief of the colic is achieved by getting the baby to empty one breast at each feeding so that he receives not only the foremilk but the fatty hind milk, too. The baby should be allowed to nurse from the first breast until he spontaneously pulls away satisfied. He should not be interrupted at any point to be switched over to the second breast. Some authorities feel that until the colic subsides, the baby should be offered just one breast per feeding and should be limited to that side for one and a half to two hours before nursing on the other side.

When nothing else works. Whether your baby has painful reflux or other colic symptoms, the extreme stress of caring for her may make you consider another feeding method in hopes that the symptoms will lessen. Keep in mind that these conditions usually improve without any such change. Switching to formula, in fact, might well make the problem worse instead of better. Continuing to breastfeed will provide important health benefits for both you and your baby and, most important, a strong bond that can help you both get through this difficult time.

Some doctors recommend thickening milk with cereal for babies who suffer with reflux or colic, on the theory that heavier food stays down better. But there is no proof that this helps; in fact, adding cereal to a baby's milk may slow the emptying of her stomach, increase episodes of reflux, and possibly cause choking. Regurgitated solids are more irritating than regurgitated human milk, and if bits of cereal are aspirated into a baby's lungs they can cause pneumonia. Besides, cereal replaces rather than supplements breast milk in a baby's diet, and it can thus cause a decrease in the milk supply. Since many babies with severe reflux or colic have allergies, introducing cereal to them early can lead to fussing at the breast, refusal to nurse, and early weaning.

Medical tests for reflux and other digestive disorders are rarely advised unless the baby shows signs of poor growth, severe choking,

or lung disease. The best test for severe reflux is the pH probe, in which a tube is put down the baby's throat to measure the acid level at the bottom of the esophagus. Less invasive is the barium swallow, in which the baby drinks a barium mixture, an X-ray is taken, and then the X-ray is examined for any blockage or narrowing of the stomach valves that may be causing or aggravating the condition. The X-ray, however, will not identify whether a baby's stomach contents are more acidic than normal or if the esophagus has been damaged by reflux. Damage to the esophagus is determined through a more invasive procedure, endoscopy with biopsy. All of these tests should be used cautiously; they do not always provide conclusive results, and they are stressful for both the baby and her parents.

Many doctors try medication, without doing any of these tests, to see if the medication will lessen the baby's symptoms. There are three kinds of medication for reflux. First are the calcium-based antacids, which neutralize stomach acid without known side effects. Among these, Mylanta Supreme is available over the counter (so are Mylicon drops, but they don't seem to help). These medications are given right after feedings.

Second are medications that suppress acid production in the stomach. These include cimetidine (Tagamet), famotidine (Pepcid), ranitidine (Zantac), and "acid blockers," which prevent all acid production. Among acid blockers, omeprazole (Prilosec) and lanseprazole (Prevacid) are approved for use in children. Since not all children react the same way to these drugs, you may have to try two or more before you find one that works well. It may take about two weeks before you can tell whether a particular drug works.

The third group of medications for reflux increases motility—that is, they improve the muscle tone of the digestive tract to keep the food moving through it. Metoclopramide (Reglan) is the motility drug currently used in the United States. It can cause gastric cramping and diarrhea. The long-term use of this drug in children (that is, over a period of weeks) hasn't been well studied; in fact, there are concerns about its long-term use in adults.

Needless to say, a baby with colic or severe reflux may sleep poorly and fuss a great deal. She may need to be held upright most of the time. She may deprive her mother of sleep and, by refusing the breast, make her feel rejected. The risks of postpartum depression and even child abuse are higher when a baby has severe reflux or colic. Since this can be a very challenging period even for the most stable family, it is important that you get emotional support, find practical help, and limit your commitments until the problem passes.

Coping Measures for Fussiness, Colic, and Reflux

1. Offer your breast—it is a source of comfort as well as nourishment for your baby.
2. Try a pacifier. Pacifiers are soothing to many babies who need a lot of extra sucking, who are fussy, or who have difficulty calming themselves. If your baby won't take a pacifier at first, try different kinds.
3. Be sure to burp your baby frequently while he nurses or sucks on a pacifier.
4. Try swaddling your baby tightly in a light blanket.
5. Soothe both yourself and the baby with a warm bath.
6. Most babies love motion. Try walking, using a baby pack, sling, or stroller. Rocking can also be comforting—borrow a rocking chair if you don't already have one. You can put a small baby in a baby swing if you bolster him with towels or blankets. Most babies are lulled to sleep by car rides.
7. White noise may calm a crying baby. Try helping him sleep by turning on a radio or a tape recording of a humming car or vacuum cleaner, or by placing an aquarium near the baby's bed.
8. Take a short break from the baby each day. Your partner might play with him while you take a bath, go for a walk, or visit a friend.
9. Find another mother who has a fussy baby. There's nothing like a friend who really understands.

Underfeeding

For any number of reasons, you may wonder if your baby is getting enough to eat. It may be that he seems to be nursing all the time or is especially fussy. Most young infants want to nurse eight to twelve times in each 24-hour period. Nursing this often is normal and seldom reflects a poor milk supply. You can't tell whether your baby is getting enough breast milk by offering him a supplemental bottle of water or formula after nursing. Most babies will take one to two ounces if it is offered, even when they have had enough milk from the breasts. The baby is probably getting enough milk if—

- he is nursing at least eight times in a 24-hour period,
- he is nursing 10 to 45 minutes at each feeding and seems content after feedings,
- he has several periods of swallowing during each feeding,
- your breasts feel softer or lighter after the baby has nursed, and
- your baby is having bowel movements every day during the first month.

If any of these statements is false, have your baby weighed. Even if all are true, have your baby weighed if you need the reassurance. The nurse in your baby's doctor's office should be happy to do this for you.

Between the fifth day and the end of the third or fourth month after birth, a baby should gain an ounce every day. A weight gain of an ounce a day reflects an adequate milk intake. If your baby was weighed at any time after the fifth day, you can see whether he has gained enough by weighing him again now. If he hasn't been weighed since the fifth day, consider that by 10 to 14 days of age most babies have regained their birth weight. If your baby is two weeks old and weighs less than his birth weight, he probably needs more milk. If your baby is two weeks old and weighs more than his birth weight, he is probably getting plenty of milk. If you have any doubt about how much the baby is gaining, weigh him again in a couple of days.

Inadequate weight gain usually occurs when a baby has had trouble latching on or nursing vigorously during the period of initial engorgement in the first week or when nursing has been infrequent. Underfeeding often occurs to the group of mothers and babies listed in "Babies Who May Not Get Enough," page 11. This problem can also occur when a newborn has a faulty suck, when a mother has used a nipple shield over her nipple for nursing and, certainly, when a baby is sick. Some laxatives, when taken by the mother, can cause a baby to have excessive bowel movements and to lose weight or gain too slowly even if he is taking enough milk. A baby who gains weight slowly or not at all after gaining well at first may be suffering with painful reflux. Some babies with reflux limit their milk intake because of the discomfort of heartburn (see "Fussiness, Colic, and Reflux," page 76).

Usually a baby's failure to latch on or suck well during the early weeks quickly leads to low milk production. The solution is to build the milk supply by pumping after nursing and to feed the baby the expressed milk along with any necessary formula.

Treatment Measures for Underfeeding

1. If possible, see a lactation professional.
2. To estimate the amount of milk you are producing and to increase your milk supply, rent a fully automatic electric breast pump. Any other pump would be inadequate for accurately estimating milk production and would be less helpful in increasing your milk supply.
3. Estimate your milk production by pumping your breasts instead of nursing. If you are pumping one breast at a time, pump each twice, for a total pumping time of 20 to 25 minutes. If you have a double-pump kit, use it for a total of 12 to 15 minutes. Feed this milk and any necessary formula to your baby.

   Exactly two hours after completing the first pumping, pump again. This time you may get less milk than in the first pumping. Multiply the number of ounces collected at this **second** pumping by 12. This will give you an estimate of how much milk you are producing over a 24-hour period; if you collected 1½ ounces, for example, you are producing about 18 ounces per day.

   Now you can compare the baby's daily milk requirement with your milk production. For example, if you estimate that your baby needs 21.4 ounces per day and your milk production is 18 ounces per day, the baby needs about 3½ ounces of formula per day until your milk production increases.

   If you determine that you have enough milk for your baby and yet he has not been gaining well, it may be that he is not taking all of the milk available at some or many of his feedings. This can happen with newborns who were born prematurely, who tend to drift off to sleep while nursing, who have sucking difficulties, or who suffer with painful reflux. In such a case, you'll still want to take the steps that follow, feeding your baby expressed breast milk (rather than formula) after nursing until his feeding skill improves.
4. After you have estimated your milk production, go back to nursing your baby at least eight times in every 24 hours. This may mean waking him for feedings. Nurse him every two and a half hours during the day and evening (counting from the start of one nursing to the start of the next) and every three to four hours in the night, for 10 to 15 minutes on each breast. (I suggest limiting the nursing to this amount of time so that the entire nursing-pumping-supplementing session can be completed in 40 to 50 minutes.) Frequent short nursings are more effective in increasing milk production than infrequent lengthy ones.
5. Pump your breasts right after each nursing to stimulate further milk production. If you're pumping one breast at a time, pump for five minutes on each side, and then pump each breast a second time for a few minutes. Pumping both breasts at once not only takes less time but increases milk production faster. Use a double-pump kit for 5 to 10 minutes after nursing.
6. Right after pumping, offer the baby whatever breast milk you've collected along with any necessary formula. If the baby needs supplemental formula, divide the total amount needed by the

number of feedings the baby is getting each day (usually eight). For example, the baby needing 3½ ounces of formula could take about ½ ounce after each of his eight daily nursings. The goal is to offer about the same amount of milk and formula at each feeding so that he wants to nurse at regular intervals.

Many lactation consultants, fearing the bottle would interfere with the baby's ability at the breast, suggest that a baby be supplemented with a nursing supplementer, cup, eye dropper, or soft tube taped onto the feeder's finger. If one of these methods is recommended to you and it works well, then continue with it. But if you find it too frustrating or time-consuming, use a bottle. After the first few days of nursing, using a bottle for supplemental feedings rarely causes latch-on or sucking problems.

7. To stimulate even greater milk production, try fenugreek. Take fenugreek capsules, which are sold in health-food stores, two or three at a time, three times a day. See "Treatment Measures for Underfeeding," page 44.
8. Weigh your baby every few days to be sure that he is gaining well. After each weighing, re-estimate his milk needs, since as he gains weight his milk needs will increase. Re-estimate your milk production, too. Two hours after your last pumping, use the breast pump instead of nursing, and figure your milk production as explained in item 3. Hopefully your milk production will have increased enough that you can decrease or even eliminate any formula supplementation.
9. Consider taking a pharmaceutical drug—metoclopramide (Reglan) or domperidone (Motilium)—to stimulate milk production.
10. Once your baby is gaining well, his nursing seems more vigorous, and he is receiving supplements only of your breast milk, try eliminating some of the supplement. For a few days, offer half of the milk that you are expressing to the baby, and freeze the rest. If the baby continues to gain well, keep pumping, but don't offer the baby any of the pumped milk. Once the baby is gaining an ounce a day without any supplement, you can gradually stop pumping. Continue to have your baby weighed weekly.

If treatment fails. It is frightening to realize that your baby is not getting enough to eat. Although the technique just described usually ensures a weight-gaining baby and higher milk production within several days, occasionally these measures won't work. Sometimes, when breast engorgement has been severe and little milk has been removed during the first week, the decline in milk production is difficult to reverse.

In unusual instances, a mother fails to produce milk. This sometimes happens to women who have had breast surgery, particularly when the surgical incision is around the areola, or who have insufficient glandular (milk-producing) tissue, or "hypoplastic" breasts.

In any of these situations, lack of support from family, friends, and health professionals can only make matters worse. But even with all of the best information and support, things sometimes don't turn out as we hope. If you have given nursing your best, but finally end up having to bottle-feed, you have not failed as a mother. Be proud of your efforts to nurse, and concentrate on providing your baby with all of the cuddling and loving that you can. Detailed information about formula and bottle feeding can be found in *The Nursing Mother's Guide to Weaning*.

Some mothers who can't produce enough milk have found that continuing to nurse with a nursing supplementer has been a rewarding, worthwhile experience. Others have found nursing supplementers to be cumbersome and frustrating. Another option, particularly if the baby has become frustrated at the breast, is to first bottle-feed and then nurse. "Comfort nursing"—nursing after or between bottle feedings or during the night—may be a pleasant experience for both mother and baby.

What Happens After The First Weeks of Breastfeeding?

The Nursing Mother's Companion, 5th edition, provides information and support for a variety of issues that nursing mothers may face in later months, such as:

- Traveling with a Nursing Baby
- Being Apart (including returning to work)
- Nursing the Older Baby and Toddler
- Weaning
- The Safety of Medications During Breastfeeding

It also provides helpful references and resources for new parents.

You can buy the complete edition of *The Nursing Mother's Companion* wherever books are sold, or contact The Harvard Common Press, 535 Albany Street, Boston, MA 02118, 617-423-5803, www.harvardcommonpress.com.

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