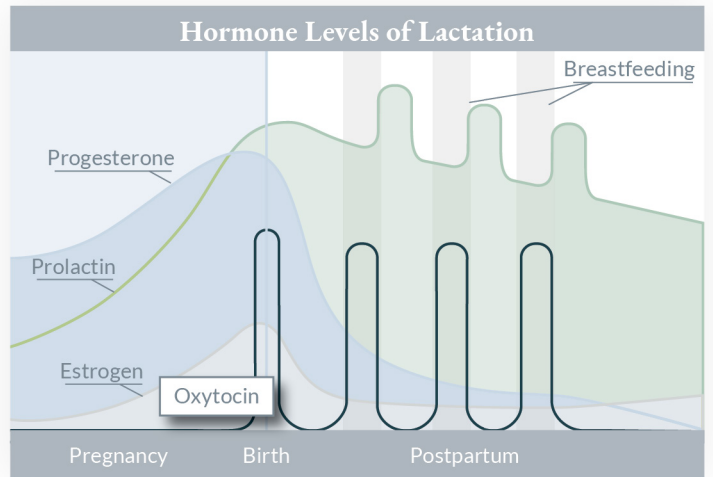


How Your Breasts Make Milk



Question: When do my breasts start making milk?

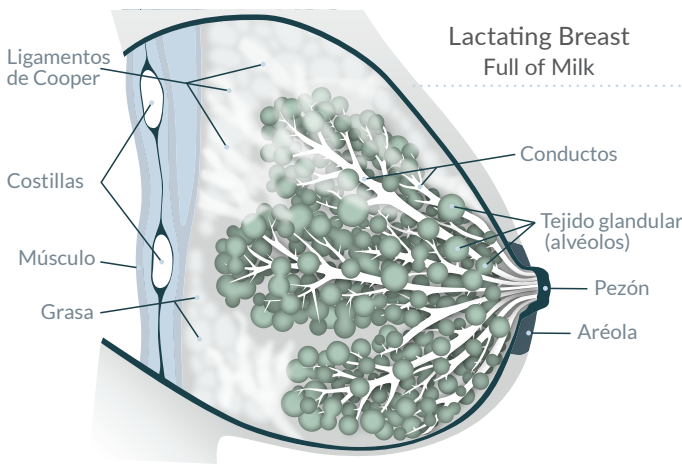
Answer: A woman's breasts start getting ready to make milk when she becomes pregnant. Breast changes are caused by four main hormones. These hormones cause the ducts and glandular tissue (alveoli) to grow and increase in size. Your breasts start to make the first milk, colostrum, in the second trimester. Colostrum is thick and clear to yellow in color. Once your baby and the placenta are delivered, your body starts to make more milk. Over the next few days, the amount of milk your breasts make will increase and the color will change to appear more watery and white.



Question: Can I help my breasts make milk?

Answer: Yes, there are four hormones that help your breasts make milk: estrogen, progesterone, prolactin and oxytocin. Your body naturally knows how to adjust the level of these hormones to help your breasts make milk, as seen in the drawing above. There are some things you can do to help your breasts make milk:

1. Breastfeed or pump within one hour of baby's birth.
2. Breastfeed or pump 8-10 times every 24 hours, about every 3 hours.
3. Massage and gently squeeze your breasts before and during breastfeeding or pumping.
4. If pumping, hand express afterwards for a few minutes to help drain your breasts of milk.



Colostrum & Milk Production (approximate times)

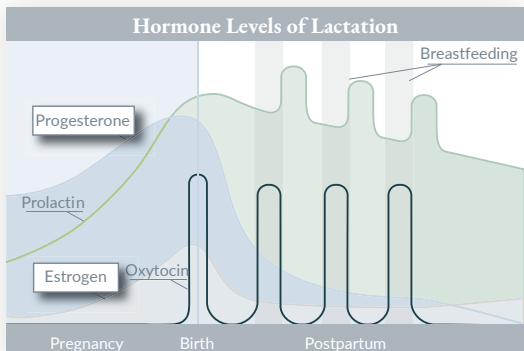
| | Pregnancy | | Birth | Postpartum | | |
|-------------------|---------------|---------------|-------|---------------------|----------------------|--------------------|
| | 2nd trimester | 3rd trimester | Birth | Postpartum days 2-4 | Postpartum days 5-14 | Postpartum day 14+ |
| Colostrum | X | X | X | X | | |
| Transitional Milk | | | | X | X | |
| Mature Milk | | | | | | X |



The four hormones that help your breasts make milk are: estrogen, progesterone, prolactin and oxytocin.

Question: What do estrogen and progesterone do?

Answer: Estrogen and progesterone prepare your breasts to make milk. These hormones are released by the placenta during pregnancy. They have two major roles. They increase the size and number of milk ducts in your breasts. They also keep your body from making large amounts of breast milk until after your baby is born. Once your baby is born and the

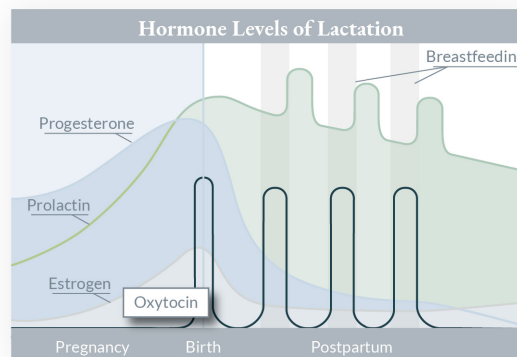


Adapted from Love, 1990

placenta is delivered, these hormones decrease. This decrease signals your body that it is time to make milk.

Question: What does oxytocin do?

Answer: Oxytocin releases milk from your breasts. When your baby (or breast pump) begins to suck and draw your nipple into her mouth, this hormone is released. This release causes milk to be squeezed out of the alveoli, into the ducts

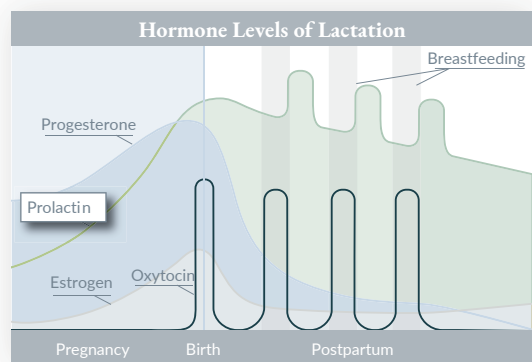


Adapted from Love, 1990

and out of your nipple, into your baby's mouth. This process is called letdown or milk ejection reflex (MER).

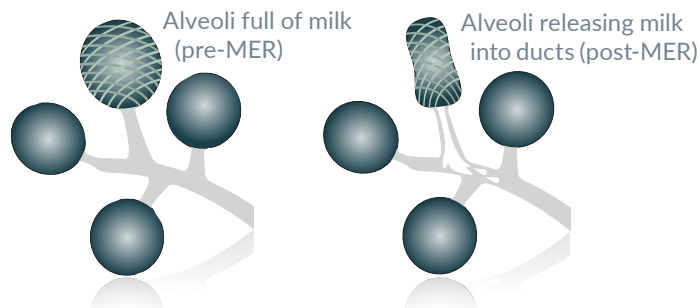
Question: What does prolactin do?

Answer: Prolactin helps your breasts make milk. After the birth of your baby, prolactin levels increase. Every time you breastfeed or pump, your body releases prolactin. With each release, your body makes and stores more milk in the breast alveoli. If the level of this hormone gets too low, your milk supply will decrease. This is why it is important to breastfeed or pump right after delivery and then at regular time frames.



Adapted from Love, 1990

Milk Ejection Reflex (MER)



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This is general information and does not replace the advice your healthcare provider. If you have a problem you cannot solve quickly, seek help right away. Every baby is different. If in doubt, contact your physician or other healthcare provider.

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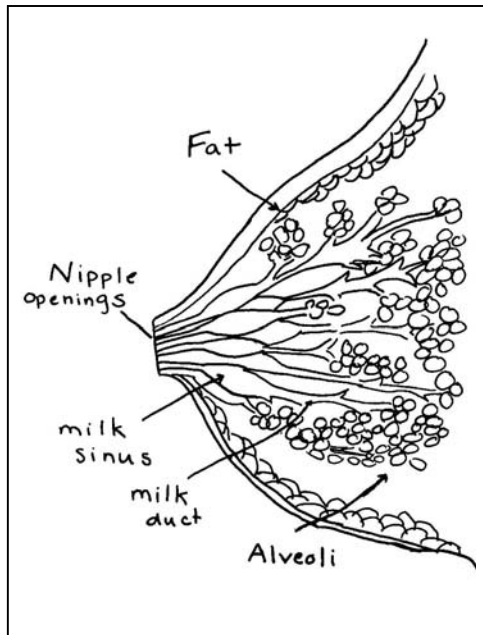
Every baby is different, if in doubt, contact your physician or other healthcare provider.

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ANATOMY AND PHYSIOLOGY OF BREASTFEEDING

In order to understand breastfeeding, and to maximize your milk supply, it is helpful to understand the structures of the breast, and the process of how milk is made.

The Anatomy of the Breast



This diagram shows the internal structure of the breast. *Alveoli* are the glandular tissue where milk is produced and stored till it is released by baby's suckling. Milk travels from the alveoli, through *milk ducts*, into the *milk sinuses* (reservoirs that lie under the areola.) There are 15 – 20 milk ducts in each breast, and milk flows from these through the openings in the nipple. On the outside of the breast, not shown in the diagram: The *areola* is the darkened area around the nipple. It's very important that babies latch on to the areola, not just the nipple, because that will mean that their mouth is compressing the milk sinuses. *Montgomery glands*, are visible as small bumps on the areola when a woman is cold or aroused. These glands produce a lubricating substance that keeps nipples moist and supple, and helps to prevent infection. When breastfeeding, wash your nipples with warm water only, as soap will wash away this protective fluid.

Breast Changes in Pregnancy

You may have noticed your breasts changing throughout the months of pregnancy. As the milk-producing structures develop, most women's breasts get larger, gaining as much as a pound of weight each, as they develop more fatty tissue to protect the alveoli and ducts. Some women develop stretch marks from this growth. Veins become darker and more visible, as the blood supply to the breasts increases. Montgomery glands become more prominent. The areola gets darker: this high contrast coloring helps baby to find the nipple more effectively.

You began producing *colostrum*, the first form of breastmilk, during the second trimester of pregnancy. It is a thick, syrupy yellow liquid. Some women may notice colostrum leaking from breasts or as a dried crust on the nipples. Colostrum is packed with proteins and nutrients, enzymes to help baby's digestive tract develop, and antibodies to protect baby from infection.

Breast Milk Production

After birth, and the release of the placenta, a hormone called *prolactin* signals the body to begin producing mature breast milk. Prolactin tells your alveoli cells to draw water and nutrients from the bloodstream to make milk. For the first few days of nursing, baby receives colostrum. During the first week, often day 3 – 5, mom's milk supply increases. Baby receives a transitional milk till day 14, then mature milk.

When baby begins nursing, he suckles in quick short bursts. The first milk your baby receives at each feeding is the milk that has gathered in the breast between feedings. This low-fat *foremilk* is high in protein and carbohydrates and satisfies the baby's thirst. As the baby continues to suckle, the nipple stimulation causes mom's pituitary gland, located in the brain, to produce a hormone called *oxytocin*. Oxytocin causes a milk ejection reflex (often called *let-down*): the milk ducts widen and shorten, and the tissue around the alveoli contracts, pushing hindmilk through the ducts, into the sinuses, then into baby's mouth. *Hindmilk* is a creamy milk that is high in fat and calories, and will satisfy baby's hunger. (See PCN 430-31 for more information on the components of breastmilk.)

Some women feel a tingling, itching, or warmth in their breasts when they have "let-down" and the milk flow increases. Others only notice that baby's suckling slows down, and baby begins to swallow rhythmically. They may also see milk in baby's mouth.

In the early weeks, let-down may take several minutes. Later on, it will take only a few seconds. Milk let-down happens best when you are relaxed, and feeling comfortable and confident.

Many sources recommend that at each feeding, you nurse for at least ten minutes on each breast to ensure that you have one or more let-downs and baby gets a solid supply of hindmilk with each feeding.

Supply and Demand

The amount of milk you make depends on how often your baby nurses and how effectively milk is removed from your breasts. The more often baby suckles at your breast, the more he stimulates the production of prolactin and oxytocin, and the more milk you will make.

To establish a good milk supply, it is important to feed frequently: watch your baby for hunger cues and feed on demand. Also, let baby feed until full each time. There is no need to limit feedings, or restrict the amount of time spent feeding. You can not overfeed a breastfed baby.

On the other hand, delaying or limiting feedings, using a pacifier, offering supplements of formula or water, or attempting to put your newborn on a schedule of feeding only every 3 hours will delay your milk coming in and will decrease your milk production.

You will notice that if you go three hours between feedings, your breasts may feel full and hard. At the end of a feeding, your breasts may feel "emptied" and soft.

Always remember that you always have milk available to feed your baby. You don't have to wait till breasts are hard to feed baby... even if it's only been a short while since your last feeding and your breasts feel soft, you will produce plenty of milk to feed baby as soon as you put him to your breast and he begins suckling.

The "24 hour cure"

Anytime you're worried about your milk supply, just nurse the baby more often!!

If you really want to increase your milk production, take a "24 hour cure". Spend a day snuggled up skin to skin with baby in bed, doing nothing all day but snuggling baby, and feeding him anytime he is awake and interested. This much hormonal stimulation is guaranteed to increase your milk supply!

Could a laid-back approach to breastfeeding help your baby latch on?

thetruthaboutbreastfeeding.com/2009/04/09/could-a-laid-back-approach-to-breastfeeding-help-your-baby-latch-on

April 9, 2009

Although it's perfectly feasible to feed your baby any way that feels comfortable, four positions are commonly recommended. These are the cradle hold, the football hold, lying on your side, and the cross-cradle hold. This last position requires you to sit up with a straight back, hold your baby sideways on, and carefully position him with his nose opposite your nipple so he has a large mouthful of breast when he latches on. It can seem like quite a complicated process for a beginner, particularly when a crying baby is added to the equation. Nevertheless, it is particularly recommended to new mothers, as it is apparently the best position in which to ensure your baby is latching on correctly – something that many women (and babies) can find quite difficult.



Despite the strong recommendation of these feeding positions, there appears to be virtually no scientific evidence to justify their use. In practical terms, it is easy to see why being able to discreetly breastfeed whilst sitting up is a useful skill to master, but for a new mother, simply being able to comfortably nourish her baby may be a more immediate priority.

A recent study conducted at hospitals in the UK and France calls into question the idea that the traditionally recommended feeding positions are automatically the best ones¹. During the study, 40 women whose babies were less than a month old were videotaped breastfeeding in a series of recording sessions. As long as feeding was going well, mothers were not advised or guided in any way: they were simply left to get on with it in whichever was most comfortable for them. In the 'best' recorded feeding session 21 of the mothers sat upright to feed their babies, one lay flat on her back, and one lay on her side; the remaining 17 were semi-reclined with their babies lying on their tummies (a behaviour termed 'Biological Nurturing').

There were some striking differences in the feeding process when mothers adopted a reclining position, as opposed to sitting upright. When babies lay on their mothers' tummies, their mothers' hands were free to gently guide them. Stroking their babies' feet seemed to be particularly helpful, as it released mouth and tongue reflexes that helped them to latch on. By contrast, when babies were held in their mothers' arms, their legs and feet were left in thin air, and the foot-to-mouth connection was lost.

The reclining group did not need to line up the nose and nipple, and make sure the baby's mouth was open wide enough before initiating the latch: as the baby was on top, gravity pulled his tongue and chin forward, allowing him to attach himself, even when he was sleepy. Gravity also automatically ensured a close fit between the baby's chin and the mother's breast, facilitating deep suckling and producing the ear and jaw movements that indicate successful feeding.

Perhaps the most interesting result, however, was that babies exhibited reflexes that helped feeding when their mothers were reclined, but hindered it when their mothers were upright. When they were lying on their mothers' tummies, head-righting and -lifting reflexes allowed the baby to orientate himself for successful latching on. When mothers were upright however, these irregular, jerky head movements had the opposite effect: the head bobbing that resembled 'nodding' when a mother was reclined was perceived as 'head butting' when a baby was held sideways against an upright mother. The gravitational forces that had helped attachment in reclining postures dragged babies away from their mothers when they sat up. It was harder to keep the baby latched on, and mothers reacted by tightening their grip, resulting in back arching and arm and leg cycling that appeared like thrashing or flailing.

It is important to view these results in context: this was an observational, rather than a controlled study, so the data cannot 'prove' that one feeding method is better than another. Many of the mothers who participated fed quite happily whilst sitting upright – as do many women every day – so it's clear that a reclining posture is not required for successful feeding.

Nevertheless, this research does call into question the idea that a position like the cross-cradle hold is the best one to recommend to new mothers. Innate early breastfeeding behaviours were observed to help attachment when a mother lay back with her baby lying on her tummy, but not when she sat up; reflexes and gravitational forces which aided latching on when a mother reclined, hindered it when she was upright. If, as this study suggests, women can just lie back and let nature take its course, the often fraught early days of breastfeeding could potentially be a much more relaxed affair.

1. Early Hum Dev. 2008 Jul;84(7):441-9.

HOW TO BREASTFEED: POSITION AND LATCH

Early Days of Breastfeeding:

Nurse as soon as possible after birth. Babies have a very alert period in the first hour, and that is the ideal time to begin breastfeeding. If they can spend as much of that time as possible in skin to skin contact with their mother, they may begin to lick or nuzzle, which begins to stimulate milk production. When they show hunger cues, encourage them to latch on.

If baby is slow to show interest in nursing, you can hand express just a few drops of colostrum and rub them on baby's lips to inspire his hunger.

At the hospital, the baby will typically stay in the room with you to allow you to nurse as frequently as possible (at least 8 times a day, but 12 or 16 would be fine.) The more you nurse, the sooner your mature milk will come in, the sooner baby will start gaining weight, and the less likely that baby will develop jaundice. The nurses can help you with position and latch.

In the first few days, you may feel cramping when baby nurses: this is a positive sign that your uterus is returning to its pre-pregnancy size. Be assured, this cramping is a temporary discomfort.

Positions for Breastfeeding: Making Sure Mom and Baby are Comfortable

Mom: First, make *yourself* comfortable. Use good posture, use pillows to bring baby up to your breast, rather than leaning over to bring breast to baby.

Baby: Hold the baby close to you throughout the feeding. Make sure baby's body is in a straight line: ears, shoulders, and hips all lined up. If baby has to turn to reach your breast, it will be more difficult for him to grasp breast well and swallow.



Cradle position: Place a pillow or two in your lap to support baby so his head is even with your nipple. Baby's head should rest on your forearm near your elbow (in the "crook of your arm") on the same side as the breast you will offer. Baby's body should lay along your forearm, with your hand holding his bottom. Baby's belly is snuggled up tight to your belly.

Use the opposite hand to support your breast. Your hand makes the shape of the letter U. Keep fingers away from the areola.



Cross-Cradle position: Use pillows to raise baby's head up even with the nipple. The hand closest to his head supports the breast, in a U shape.

The opposite hand supports baby's neck: the fingers and thumb make a "hammock" for baby's ears and neck, your palm rests between his shoulder blades. To move him closer to you, you'll move his shoulders forward, not just bend his head in toward you. Don't touch the top or back of baby's head; some newborns have a tendency to pull back and away from your breast if you do this. Cross-cradle is good for premature babies, and for babies with low muscle tone.





Football / clutch position: Put a pillow or two at your side to help support your arm and your baby. Hold your baby as if you were carrying a football, tucked in snug against your side. His bottom rests on the pillow, and the legs are tucked up, so he can't push off of the back of the chair while you nurse. Hold baby's neck and the lower part of his head in your hand, level with your nipple. Use the opposite hand to support your breast in a C-hold: Thumb above the areola, fingers are cupping and supporting the breast. The diagram shows a C-hold after mom has compressed her fingers to make a "sandwich" (see below.) Football hold is a good position after a cesarean; it's also good for large-breasted women.



Side-lying: Lie on your side with a pillow behind your back. Place your baby on his side facing you, and tuck a pillow behind him to hold him snuggled close to you. Use the C-hold.

It can be harder for you and baby to learn about latch in this position, since it's harder for you to see what is happening, and harder to adjust things. Therefore, it may be easiest to refine the latch in a sitting position. Or, you may be able to have your partner help with getting baby latched on. However, this position can be wonderful for tired moms, allowing them to rest while nursing. So, it is well worth learning and practicing. Be aware that it is easy for moms to fall asleep while nursing, so you should make sure the environment is a safe sleeping environment for baby.

Vary positions: Changing positions will help you build the best milk supply, and will help avoid clogged ducts and sore nipples.

Helping Baby Latch on to Your Nipple

"Nipple Sandwich" Compress your breast with thumbs and fingers, as if you were squeezing a sandwich to fit into your mouth. Shaping the breast in this way will allow baby to get a deeper latch-on. Start with your nipple by baby's upper lip, or nostril so he has to "reach up" to latch on. His head may be tilted back slightly; he shouldn't have his chin tucked down on his chest.

Encouraging Baby to Open Wide. Use your nipple to gently tickle or stroke baby's upper lip, then move away *slightly*, then tickle again, until he opens his mouth very wide, as wide as a big yawn, with his tongue forward.

When baby's mouth is wide open, quickly pull him close, so that his chin and lower lip go as far onto areola as possible, and upper lip takes in much of the areola.

Checking for a Good Latch and Good Milk Transfer

Once baby is latched on, check his latch. If it's not a good one, you should take him off the breast and try again. Do not allow a poor latch, as this can lead to sore nipples for you, improper suckling habits for baby, and baby not getting as much milk as possible during a feeding. If you need to remove baby from the breast, first release the suction. Slip a finger into the corner of baby's mouth, between his gums. Hold your finger there to protect your nipple while removing it from baby's mouth. Try latching on again. (As baby gets older and more experienced, this will get easier!)

Signs of a good latch:

- Look at the areola: Baby should have part of the areola in his mouth, not just the nipple!

- Baby may be perfectly centered on the areola. This is called “bulls-eye” latch.
- Baby may take in more of the breast by his lower lip, and you may see part of the areola above his top lip. This is called an “asymmetric” latch.
- Look at the baby:
 - Lips are flanged out, “fish lips.” The tongue is over lower gum, under the nipple. Make sure lower lip is not tucked under, though this may be hard for mom to get a good view of when baby is latched on well.
 - Baby’s chin indents breast tissue a little.
 - Baby’s nose is touching breast. Baby can breathe easily with nostrils flared out specifically for this purpose. If he has any trouble breathing and pulls away from the breast, try lifting your breast a little, or pulling his legs closer to you. Don’t press on your breast to move it away from baby’s nose because this may pull your nipple out of the back of baby’s mouth, which could cause nipple soreness.
 - Baby’s cheeks look full, not sucked in as if sucking on a straw.
 - You can see swallowing motions in his temple, lower jaw, or ear. He begins feedings with rapid sucks, then, once milk lets down, there is a slower pattern of bursts of sucking and short pauses. In the early days, he may suck 5 times without swallowing. After day 5, it’s typically suck, swallow, suck, swallow.
- Listen: You should not hear lip smacking, or clicking, or “kissy noises”. These aren’t possible if mom’s nipple is far enough back in baby’s mouth.
- Feel: Mom may have some nipple pain when baby first latches on. If it hurts for more than one minute, call a lactation consultant to check in.



Preparing to Latch:
Opening Wide



External View
of Latch



Internal View
of Latch

Switching Sides

Breastfeed till he falls asleep, or lets go of the nipple, or pauses more often than he sucks. Your breast will have softened. He needs to nurse *at least* 10 minutes on the first side.

Then, if he has not already let go, break suction, and take baby off your nipple.

Give the baby an opportunity to burp; change his diaper if need be, then switch sides to finish the feeding. On the second side, let him feed for as long as desired.

For the next feeding, start on the opposite side to where you started this feeding. This ensures good milk production in both breasts.

Breastfeeding Q&A

Question: What are the health benefits of breastfeeding?

Answer: Breastfeeding provides increased health benefits for babies and their mothers. The health benefits of breast milk are due to the species-specific live cells, antibodies and hormones that are present in human milk but lacking in formula.

Full term infants are less likely to develop:

- Colds, pneumonia & asthma
- Ear infections
- Diarrhea
- Skin conditions like eczema
- Type 1 and 2 diabetes
- Leukemia
- Obesity
- Sudden Infant Death Syndrome (SIDS)

Mothers are less likely to develop:

- Breast or ovarian cancer
- Type 2 diabetes
- Postpartum depression

Question: How do I know if breastfeeding will work for me?

Answer: Learn about breastfeeding by spending time with other mothers who breastfeed. Go to a local breastfeeding support group before your baby is born. This is a great way to learn about breastfeeding and meet other breastfeeding mothers. Contact your local hospital to find out what is available in your area. You can also attend a breastfeeding class and read a book about breastfeeding to get you prepared.

Question: Can I breastfeed if my baby is born preterm?

Answer: Yes. It depends on how early your baby is born whether your baby will be able to breastfeed right away or not.



Before and after birth, many mothers are curious about breastfeeding. Here are answers to some common questions.

If your baby is born very early, you may need to use a breast pump to build up and keep a full milk supply until your baby can exclusively breastfeed. More information can be found in the Breastfeeding the Preterm Baby Q&A.

Question: Does breastfeeding hurt?

Answer: No, it shouldn't hurt. At first, it can feel a little uncomfortable in the first minute or so after your baby latches. After, you should feel a tugging feeling when your baby sucks. If you feel pain throughout the breastfeeding session, get help from a lactation consultant to learn how to latch your baby on right.

Question: How often will I need to breastfeed my baby?

Answer: The first several weeks, your baby will breastfeed 8-12x every 24 hours. Feed your baby when she is hungry, she will give you signs called hunger cues. Over time, she will breastfeed less often. More information can be found in the Making Milk For Your Baby Q&A.

Question: Does the size of my breasts make a difference in the amount of milk I can make?

Answer: No. Breast size is determined by the amount of fatty tissue they contain. Your breast size does not affect your ability to make milk. Both small and large breasted women can make enough milk for their baby's needs.

Question: How will I know how much milk my baby is getting if I breastfeed?

Answer: Easy. What goes in must come out! You will know how much your baby is getting by how often he has wet and dirty diapers. Healthy weight gain is also a good sign that your baby is getting what he needs. You don't need to know exactly how much your baby takes. You only need to know that your baby is thriving. This can simplify life with a newborn.

Question: I am going back to work. Should I even start breastfeeding?

Answer: Yes. Some breastfeeding is always better than none. When you go back to work you have many choices:

- Full breastfeeding: Going to your baby or having your baby brought to you to breastfeed
- Pumping and breastfeeding: Giving pumped milk to your baby when you are apart and breastfeeding when you are together
- Pumping, giving formula and breastfeeding

Formula and breastfeeding

Question: What if my baby wants to breastfeed in public? That makes me uncomfortable.

References

Mohrbacher N. Breastfeeding Answers Made Simple: A Guide for Helping Mothers. Amarillo, TX: Hale Publishing, LP; 2010.
Spangler A. Breastfeeding: A Parent's Guide. 9th ed. Cincinnati, OH: Specialty Lithographing Co; 2010.



What goes in must come out. You will know how much your baby is getting by how often he has wet and dirty diapers.

Answer: You don't have to if you don't want to. Many places have private nursing lounges. You may even find that with a little practice and a blanket to cover up, you can breastfeed anywhere without anyone noticing.

Question: Do I need to watch what I eat and drink if I am breastfeeding?

Answer: There aren't any foods that you must avoid. The key is to eat a variety of healthy foods and not eat too much of one thing.

Drink to thirst. Healthy beverages without caffeine are better, like water, non-fat milk or 100% juice. One or two caffeinated drinks a day are not likely to cause your baby to be fussy or wakeful. It is better not to drink alcohol. A small glass of beer or wine for a special occasion is usually not a problem.

Question: If I breastfeed, will my partner feel left out?

Answer: Your partner is the key to your breastfeeding success. The first weeks after having a baby can be both exciting and overwhelming - you are learning a lot and so is your partner. Your partner can help in many ways: learning to recognize your baby's hunger cues, helping you get comfortable to breastfeed, helping you stay hydrated and nourished, helping after breastfeeding to get your baby comfortable, and praising your efforts. Work together - this is just the beginning of your days as a family.

This is general information and does not replace the advice of your healthcare provider. If you have a problem you cannot solve quickly, seek help right away.

Every baby is different, if in doubt, contact your physician or other healthcare provider.

PREPARATION FOR BREASTFEEDING

First, it is important to understand that there is very little that you need to do to prepare for breastfeeding. Your body has *already* done most of the necessary preparation, and is producing colostrum (the first form of breastmilk) by week 26 of your pregnancy.

Therefore, this handout covers: optional supplies you may choose to obtain before baby is born, things you should *not* do to prepare for breastfeeding, and some things you may want to do.

Nursing Bras

While breastfeeding, women's breasts tend to be heavier and fuller than usual, and most women find they are more comfortable if they wear a supportive bra.

If you normally wear soft cup bras, you may find it works fine to use these: simply pull the cup down below your breast, exposing the nipple for nursing, but leaving breasts supported.

Or, you may choose to buy special bras, which have flaps that open out from the center, or down from the top to expose the nipple. Shop in the final weeks of pregnancy: The band should fit on the tightest hook, and be able to loosen a little if needed. If you can just slip a hand inside the cup; this will allow for a little breast growth during nursing.

Nursing Pads

Sometimes nursing moms' breasts leak milk. If your breasts leak, just use your hand or forearm to put a little pressure on the breast till leaking stops. If you leak often, you'll want nursing pads: you tuck one in each side of your bra to prevent milk from leaking through your shirt. It's important to change pads anytime they get wet: wearing wet pads can cause sore nipples. Some women use plastic breast shells to catch leaking milk, but this may cause *more* leaking.

Breastfeeding Clothing

You can breastfeed discreetly in almost any shirt you already own (t-shirts, sweaters, sweatshirts, etc.): when you are holding baby in your arms, simply lift the shirt up from the waist, up over the lower part of your breast, then slip your bra down to expose the nipple and latch baby on. Baby will cover any skin you have just exposed.

If you prefer, there are special nursing clothes available with a variety of openings. These can be useful for moms who are learning to breastfeed, or moms who are especially worried about nursing in public. You can get nursing wear at maternity stores, online, or at consignment shops.

Checking for Inverted Nipples

You may hear about "inverted nipples." When pressure is applied to the areola, these nipples sink down into breast tissue rather than protruding outward, or becoming flat. Also, they do not become erect when cold or stimulated. About 1/3 of women have inverted nipples at some point in pregnancy, but only 10% remain inverted by the 9th month.

To test for this, hold your breast with your thumb and index finger at the edge of the areola, and gently press thumb and forefinger together. If the nipple sinks in, or seems to disappear into the breast tissue, it is considered inverted. Babies *may* have a more difficult time latching on in the first few days, but typically, baby's suckling helps the nipple to protrude over time.

There are two possible treatments for inverted nipples. One is to wear plastic breast shells in the final weeks of pregnancy, which gently draw the nipple out. The other is “Hoffman exercises”: which gently stretch the nipple tissue. Interestingly, a clinical trial showed no significant benefit to these treatments, and found that “no treatment” appeared to be the best option.

For more information call Swedish’s breastfeeding info line: (206)386-MOMS.

Some sources recommend use of “nipple shields”, soft plastic shields worn *while nursing* baby, to help draw a nipple out, and to protect sore nipples. Be aware that nipple shields can interfere with milk production, and should *not* be used without the advice of a lactation professional.

If you have any other specific concerns about your nipples, your breast shape, previous breast surgeries, health, or any other issues which may affect breastfeeding, you can ask your caregiver for a referral to a lactation consultant for a consultation before baby is born.

Toughening Nipples??

You may also hear a variety of advice about how to “toughen up” your nipples prior to birth.

Here’s what *not* to do:

- Do NOT rub your nipples with a nail brush (or even a washcloth) to toughen them. This may irritate nipples, and may cause uterine contractions.
- Do NOT apply alcohol, witch hazel, tincture of benzoin, or Vaseline to harden / prepare the nipples. This may irritate the nipples and predispose them to pain and cracking.
- Do not use soap on your nipples. The glands on the nipples secrete a substance which helps keep them clean and moist, and soap can dry them out.
- Do not hand express colostrum, or massage breasts prior to birth in hopes of avoiding engorgement. These methods don’t appear to affect engorgement, and may cause contractions.

These things are not harmful, though they’re also probably not *necessary*:

- For a few minutes every day, or longer if desired, expose your nipples to fresh air.
- You can go bra-less occasionally, or wear a nursing bra with the flaps down, which lets the nipples rub against your clothing. *May* prepare nipples for handling friction.
- Lovemaking with gentle oral or manual stimulation of the nipples.

A general caution: Nipple stimulation in pregnancy can cause uterine contractions and could induce labor. Minimal stimulation is not likely to cause any problems, but if any of your actions are causing contractions, you should stop and consult caregiver.

Some women attempt to induce labor, or increase the strength of contractions, by using nipple stimulation. This should only be done under the advice of a caregiver. See PCN p. 268.

Supportive Caregivers

Before baby is born, surround yourself with people who know about breastfeeding, support breastfeeding, and believe that it will work for you and your baby. Especially important: make that your partner, other family members, your baby’s doctor, and any babysitters or childcare providers you work with are educated about breastfeeding, and prepared to support you with it.

SIGNS THAT BABY IS GETTING ENOUGH MILK

First, to ensure a good milk supply: feed frequently, never limit feeding times, make sure baby is latched on well, and that you hear swallowing as he suckles. Have lots of skin-to-skin contact for mom and baby. Avoid supplemental bottles or pacifiers for the first three to four weeks.

Diaper Counts

In the first five days, expect to see *at least* 1 wet or dirty diaper per day old. For example, a three day old baby would have at least three dirty diapers, as a minimum. Some babies may have much more, depending on how much meconium they eliminate in those early days.

After day 5, you should see a total of 7 – 10 diapers a day, and at least three of those should include stool / poop. (Newborns may have a bowel movement with every feeding.)

Urine should be clear to pale yellow. Bowel movements are yellowish and loose: may be the consistency of mustard, may look seedy, may contain white curds, like cottage cheese. By 3 months, babies have larger b.m.'s less often, and may go several days between.

Weight Gain

In the final weeks of pregnancy, babies stock up on extra fluids to ease their passage through the birth canal, and to help them through the first few days.

It is normal and expected for newborns to lose 5 – 7% of their body weight in the first few days as they shed this extra fluid. If they lose more than 7%, the baby's doctor may want to monitor breastfeeding more closely. It generally isn't necessary to supplement the breastfeeding.

Babies should regain birth weight by the end of two weeks, then gain consistently from then on.

When to Be Concerned

If baby is gaining weight, developing well, and is peeing and pooping as described above, you can be reassured that all is well.

However, in the rare circumstance where you see any of these signs, you should contact baby's doctor: less than 5 diapers in a 24 hour day, less than one bowel movement a day (after day 5), dark yellow urine, urine with a reddish "dust" in it, a sunken fontanel, a dry mouth, or jaundice – a yellow tinge to skin below the chest line, or yellowness in the "whites" of baby's eyes. Or if baby seldom seems to be content after feedings, is lethargic, or uninterested in feeding.

Growth spurts and Nursing Strikes

Expect your baby to have growth spurts at around 2 weeks, 6 weeks, 3 months, and 6 months. At these times, he will be unusually fussy, and will nurse longer and more frequently than usual. Increase the length and frequency of feedings. This will only last a few days.

Nursing strikes: Sometimes babies will go through periods of not wanting to nurse as often as you're used to. Possible causes are teething pain, overstimulation, reaction to a change in the routine, flavor differences in the breastmilk, or normal developmental stages. This will typically only last for a short while, and need not be interpreted as a sign that baby is ready to wean.



Dads & Breastfeeding

How can I help my partner be successful with breastfeeding?

The first weeks after having a baby can be both exciting and overwhelming – you are all learning a lot, including how to breastfeed.

- Arrange for help. In some cultures, the early weeks are seen as special. Mothers are kept apart from others so they can focus on the baby. All chores are done for them. After this time, mother receives public praise for a job well done. In these cultures, few mothers get the “baby blues.” The more you can make the first 40 days like this, the better.
- Learn about breastfeeding. It is easy to support your partner when you believe in what she’s doing. Attend a prenatal breastfeeding course. Read up on the benefits of breastfeeding and the risks of not breastfeeding.
- Watch and learn from those who help your partner learn to breastfeed. Ask questions.
- Talk to other fathers about their experiences with breastfeeding. It is helpful to share your thoughts and feelings—you need support too!
- Limit visitors to those who are supportive and helpful. This is the time for you and your partner to learn how to care for your baby. Keep visits short or ask visitors to help clean and cook, so you tend to your baby and get some rest.
- Get help. There are many support people available for hire that can help you with household chores and/ or basic breastfeeding support in your home—such as a postpartum doula (www.dona.org).
- Know your resources. Find out if your hospital has a breastfeeding help line or support group.
- There may be other local breastfeeding mom to mom support groups available, (www.lalecheleague.org or www.breastfeedingusa.org). Or find a local breastfeeding expert, such as a lactation consultant (www.ilca.org).

Can I bottle feed my baby?

Yes. If your baby was not born preterm or with special needs, wait to bottle feed until your baby is at least 4 weeks old. This is the time it usually takes for your baby to learn to breastfeed well and be able to go back and forth between breastfeeding and bottle feeding without any issues. You can bottle feed breast milk that your partner has expressed/pumped.

How can I help my partner when she is breastfeeding?

- Learn your baby’s hunger cues. Early hunger cues include: sucking sounds, moving around, tongue and hand-to-mouth movements. If you see these, bring your baby to your partner to breastfeed.
- Help her get comfortable. Be sure she has enough pillows to support the baby, her arms and back. For some positions, she may need your extra hands to get the baby just right. Remind her to take a deep breath and relax her shoulders and body once the baby is latched on.
- Help her stay hydrated and nourished. Bring her a drink and healthy snack while she is breastfeeding.
- Help after breastfeeding. Offer to burp and change your baby’s diaper.
- Encourage her to take a nap at least once a day. Sometimes, we don’t realize how sleep deprived we are the first weeks after having a baby and a little extra sleep can make a big difference!
- Praise her. Tell her you are proud of her and that she is a wonderful mother.



How can my baby and I get to know each other if I don't bottle feed?

Plan to spend some time doing something you enjoy with your baby each day. Here are some suggestions:

- Hold your baby. Skin to skin or swaddled—babies love to be held. Put your diapered baby on your bare chest to hear your heartbeat and feel your body warmth. Or swaddle your baby and rock her to sleep.
 - Talk and sing to your baby.
 - Take your baby for a walk.
 - Give your baby a bath.
 - Play with your baby.
 - Read a book to your baby.

Will breastfeeding affect our sex life?

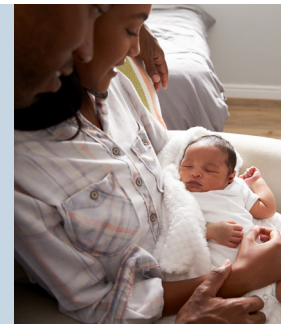
When your baby is first born, your partner will need time for her body to recover after having a baby. Once she has had her six-week postpartum check-up, she may be physically and emotionally ready to start having sex again. It is important for you to discuss your feelings and readiness with each other. Here are some additional things to keep in mind.

- Some mothers may have less desire for sex due to fear of pain or pregnancy or just being tired.
- Many mothers have vaginal dryness due to hormone changes while breastfeeding. Using a lubricant can make sex more enjoyable and less painful during this time.
- During sex, your partner may have an orgasm that causes the hormone, oxytocin to be released. This is the hormone that also causes milk to be released from the breasts. So, you may get a little wet! This will happen less if your partner breastfeeds before having sex.



The first weeks after having a baby can be both exciting & overwhelming! New mothers need lots of support.

Welcome to fatherhood! Learn some ways to help make breastfeeding a success. You are key to your baby getting the best from the very beginning.



Can my partner get pregnant if she is breastfeeding?

Yes, she can. Although, it is possible to use the natural child spacing method if:

- Your baby is less than six months old.
- Your partner is exclusively breastfeeding which means breastfeeding on demand, not bottle feeding or pumping.
- Your partner has not had her period yet after having her baby. But keep in mind that usually a woman's body ovulates (releases an egg) before her period, so you may not know if you are at risk for pregnancy.

The natural child spacing method does not provide 100% protection from pregnancy so it is a good idea to use a back-up form of birth control if you want to avoid pregnancy. Talk to your healthcare provider for more information.

Remember:

- Educate yourself
- Be supportive
- Get help with breastfeeding if needed
- Talk to you partner & be open about your feelings

Sometimes breastfeeding doesn't work out for a variety of reasons, but keep in mind you both did what you could to try to make it successful. Consider pumping and bottle feeding as an alternative if you still want to provide breast milk. Most of all, relax, love your new family, and enjoy all of the new experiences you will have with your baby.

This is general information and does not replace the advice your healthcare provider. If you have a problem you cannot solve quickly, seek help right away. Every baby is different. If in doubt, contact your physician or other healthcare provider.

12 Things Grown-Ass Men Do For Their Partners Who Are Breastfeeding

romper.com/p/12-things-grown-ass-men-do-for-their-partners-who-are-breastfeeding-9961



By [Jamie Kenney](#)

May 10, 2016

In the best of circumstances, breastfeeding is a three person job: baby (oh yeah, baby, you have to work for this, too; There's no such thing as a free lunch), nursing mother, and a dedicated partner to support her. Now that partner can be a romantic partner (husband, wife, boyfriend, girlfriend, other), a best friend, a mother, a lactation consultant, or any number of other special people in a mother's life. And if that partner is a man, he'd better be a grown-ass man, because there are just certain things grown-ass men do for their partners who are breastfeeding.

I mean, I know: female-bodied people are genetically predisposed to do the lion's share of the business of growing and nourishing the baby (should she choose to breastfeed, of course). So it may be tempting for the dudes in a baby's life to think "Well, I'd *like* to take an active role here, but there's literally nothing I can do." Nope. That's just not true. Are you *limited* in your ability to help? Sure. (Especially with the horrible parental leave laws in the U.S.) But that doesn't mean there isn't a bevy of things you can do to make all of this

easier on your family. Do you know who knew that without my having to tell them? Grown-ass men. And without further ado, here are some of the many things grown-ass men do when their wife/girlfriend/partner/friend is breastfeeding.

Get Her A Glass Of Water... Or 4

There's no firm consensus on how much water a breastfeeding mother needs; generally drinking to satisfy thirst is sufficient for most women. But many women will tell you that nursing makes them positively parched, especially in the early days when their supply is regulating and everyone involved is getting the hang of things. As such, grown-ass men know that their lady love will need water, lots of it, and they will lovingly prepare an icy cold glass as mama settles in for yet another 45 minute session.

Uncomplainingly Get Her Stuff While She's Trapped Under An Infant

Because did I mention *45 minute sessions*. And there are about a billion of those a day. So, *obviously* she's going to need stuff in that time, and she isn't always going to remember to grab it before she sits down. So grown-ass men do their part by getting up and getting things for them upon request, realizing that, of the two of you, they really got the easier task.

Reassure Her When She's Discouraged

There are a lot of difficulties associated with breastfeeding that can get a new mom down. And in those times of desperation and despair (or just annoyance), a grown-ass man steps up to the plate with a gentle shoulder rub and words of encouragement. Because she didn't make a baby with you just so you could get her a glass of water or fetch her cell phone for her when she left it on the counter: she likes you, and your emotional support means a lot to her.

Laugh With Her When Things Get Weird

This one time, my daughter popped off my boob, and said boob continued to shower down milk onto her face for a solid minute. It was like someone left a garden hose on. She thought it was great. Now, some people might be squeamish about that, but when you or your partner is breastfeeding, #sorrynotsorry, this is your life now. So grown-ass men know that boobs can get messy, and life with messy boobs can get messy, and sometimes it's a funny mess, so you just kinda have to join in and giggle over the fact that the boobs in your life aren't purely decorative.

Don't Be Weird About The Boobs

This will require some judgement calls, but grown-ass men are good at those. "Don't be

weird" can involve any of the following...

-don't get grossed by lactation

-don't get obsessively into the fact that your partner's boobs may be a lot bigger now

-don't constantly try to touch her boobs

Just be a grown-ass man. Be cool.

Have Conversations About Breastfeeding

This is a big part of your woman's life now, so it's normal, healthy, and probably healthy to talk about what's going on

Ask How She's Doing

Because breastfeeding takes more than just milk out of a lady. It's a huge drain on calories, physical and emotional energy, and time. That's to say nothing of the swirling inferno of hormonal changes happening beneath the surface due to pregnancy and birth. Be aware of the signs of postpartum depression; a grown-ass man does his best to let his partner know that she has a safe space to talk about her problems, no matter how trivial or severe.

Don't Assume She Is Your Child's Sole Source Of Comfort

A grown-ass man knows that just because a breastfed baby is often comforted by boobs, boobs aren't the only way to comfort a child. Grown-ass men do not therefore assume they are off the hook for middle-of-the-night wake-ups or unexplained screaming fits until the child is weaned. A grown-ass man steps up and takes turns comforting his child.

Do Some Of Your Own Research

Pick up a book on breastfeeding. Check out Kellymom.com. Talk to your partner about what she's read or learned (or wants to). A grown-ass man knows there's a lot he doesn't know and, as a gentleman and a scholar, he seeks out information.

Don't Tell Her What She Should Do

For the love of God, people. A grown-ass man knows a woman's body is her own and that there's a difference between offering support and suggestions and telling a woman what to do with her own body. A grown-ass man does not shame a woman for deciding to (or not to) breastfeed. A grown-ass man doesn't tell his partner what she's doing wrong or what she *should* be doing.

Don't Complain About Having To "Share The Boobs"

Because a grown-ass man knows that it is a privilege for a woman to "share" them with him in the first place.

Thank Her

Breastfeeding mothers are *for real* taking one for the team here. Speaking from experience, there are times, like when your child latches on to your breast for during the 15th nursing session that *evening* when you just stare blankly into the abyss and hear Simon and Garfunkel's "The Sound of Silence" play softly in the back of your mind. A grown-ass man respects this assumption of duties and shows due gratitude.

FREQUENCY AND DURATION OF FEEDINGS

HOW OFTEN? HOW MUCH?

Some important things to remember: Normal newborns can be irregular eaters. The frequency they will want to eat and the length of their feedings can sometimes vary considerably. All the times given here are estimates, and will range from baby to baby, and from day to day.

When to Feed / How Often?

Feed on Demand: We strongly recommend feeding your baby on demand, anytime he is hungry. If you nurse at the early cues, baby is patient and cooperative as you work on proper positioning. Also, baby's stomach is as small as his fist, and breastmilk digests easily, so newborns *need* to eat frequently.

Hunger Cues: How do you know if your baby is hungry? A common saying is “watch the baby, not the clock.” Feed him when he begins to show any of these signs or symptoms of hunger.

- Rooting: If you stroke his cheek, he turns toward your finger, and opens his mouth.
 - Turning his head side to side, or bobbing his head up and down against your chest.
 - Bringing hands to mouth. Sucking his fingers or anything he can reach.
 - Lip smacking, thrusting his tongue out.
 - Becoming more active after a quiet time, waving hands about, making noise.
 - For a sleepy baby, cues may be subtle: you may just see fluttering eyelids and some motion.
- Babies begin to show these cues about 15 minutes before they begin to cry. Crying is a late hunger cue! And it can be hard to feed a crying baby, so if you wait till he's this hungry, then you may need to work to calm him down enough to feed.

Frequency of Feeding: Feed your baby whenever he is hungry. This should be a *minimum* of 8 – 12 times in a 24 hour period. Some newborns will eat 15 or more times a day.

Babies do not necessarily space their feedings out evenly throughout the day. They may have parts of the day where they nurse as much as every hour, and other times when feedings are more spread out. The longest a newborn should go without feeding is three hours in the daytime, or four hours overnight. All newborns need to be fed during the night.

If you have an unusually sleepy baby who does not ask to be fed this often, keep him near you. Whenever he stirs at all, change his diaper, and nurse him. See PCN page 434 for more ideas. As baby gets older, feeding times become less frequent and more predictable. Most three month old babies go approximately 3 hours between feedings.

How much to feed:

Feed the baby until he acts full: he may fall asleep, or he may let go of the breast. Or, his sucking pattern will slow down until he is pausing more often than sucking.

At first, expect it to take 20 – 45 minutes per feeding. This time will get shorter as you and baby both get more experienced. You should always nurse a newborn for *at least* 10 minutes on the first side, then as long as baby desires on the second side.

Again, as baby gets older, he will become more efficient at feeding, and it will take less time.

Are You Wondering How To Help Your Partner Breastfeed?



Breastfeeding Benefits

For baby

- Breastmilk meets all of the baby's nutritional needs for the first 6 months, with the perfect balance of nutrients for a growing baby
- Breastmilk is easily digested, so less constipation, gas, diarrhea.
- Breastmilk passes antibodies to baby which means fewer colds, ear infections and tummy bugs.
- Breastfeeding reduces child's risk of asthma, allergies, diabetes, obesity, SIDS, and some cancers.

For the breastfeeding parent

- Helps her recover from the birth
- Releases prolactin which relaxes her and reduces stress
- Reduces lifetime risk of ovarian and breast cancer, osteoporosis, and rheumatoid arthritis

For the family

- Saves time—no need to wash bottles or go buy formula
- Saves money—formula costs about \$1500 a year. Healthier moms and babies means lower health care costs
- A healthier baby means you don't have to miss as much work or school to care for a sick baby

How Partners Can Support Breastfeeding

Knowledge: Learn about breastfeeding and know how to help

Attend a breastfeeding class with her, or read about breastfeeding. Know how to help with positioning. Be able to recognize a good latch. Learn how to prevent, recognize and treat common challenges. Know when and how to contact a lactation consultant for advice. At classes and appointments, ask questions and take notes.

Positive Attitude: Let her know that you value breastfeeding

If she thinks you want her to breastfeed, she's more likely to start and likely to nurse longer than if she thinks you don't care whether she breastfeeds or if she thinks you don't approve. If you have concerns, share them, then do research to learn how to address those issues.

Input: Be involved in decision-making about feeding issues

Often the parent who will breastfeed makes the final decision, but that doesn't mean she wants to make it in isolation. If you step back from decision-making, she may think you don't care. Help her to research and strategize. Decide together what's best. Then support the decision. Stay involved in later decisions like when to introduce solid food.

Practical Support: Help out with everything else!

Take care of the baby in *every way other than feeding*: burp, diaper, bathe, calm, cuddle, bring him to her for feeding. Be responsible for baby's things: pack the diaper bag, do laundry, wash the pump. Take care of the breastfeeding parent: feeding her helps feed the baby. Create a "nest" with everything she needs when nursing, and be sure it's stocked when you're not there. Take care of the house: shop, cook, clean. Take care of responsibilities like paying bills or making plans.

Emotional Support: Let her know you care about her

Be present: hang out with her when she's nursing, call or text when you can't be together. Appreciate her: let her know she's doing a good job and you value what she's doing. Encourage her: help her through the hard days, validate her feelings, and understand that she's going through big changes in her self-identity. Affection: do little things that let her know that you care about her—gifts, love notes, massages, etc.

Note: Caring for a newborn can be emotionally draining for you too. Get the support you need so you have enough energy to support her.

Anticipate Needs: Don't wait till you're asked. Just do it!

What You Need to Know About Breastfeeding

When to Feed, How Long to Feed

Whenever your baby shows hunger cues (rooting, tongue thrusts, sucking), bring him to the nursing parent. Your baby will show cues 10–15 minutes before starting to cry. To learn about cues, watch: www.youtube.com/watch?v=ve7yXXRaYT8

Newborns need to nurse at *least* 8-12 times a day, or *about* every 1-3 hours round the clock. More often is OK.

She should feed at first breast till the baby shows full cues (stops suckling, falls asleep). Then you can burp the baby. Then she offers 2nd breast. At next feed, start on the other side.

Feeding time ranges: 10-50 minutes. Expect 20-40.

AAP and WHO recommend feeding baby only breastmilk for 6 months, then start solids but continue breastfeeding for 1-2 years or longer. She'll need your support to do this!

Signs Baby is Getting Plenty of Breastmilk

Sucking: Baby feeds at least 8 – 12 times a day

Swallowing: You can hear a swallow after most sucks

Softer: Her breast is softer after the feed

Satisfaction: Baby seems to be satisfied after feedings

Soaking: After her mature milk comes in, you should see 6+ wet diapers a day

Stools: After mature milk comes in, at *least* 3 poopy diapers in each 24 hour period for the first month

Scales: Baby gains average of 1 ounce or more per day

To increase milk supply: feed more frequently, use breast compression, and get baby lots of skin-to-skin contact with the breastfeeding parent.

Getting ready to nurse

Make sure she has everything she'll need: water, a snack, pillows she uses, and something to entertain her. Hold baby while she gets settled.

Make sure she's comfortable. Leaning back can help the baby latch on.

Help her get baby into a good position. Signs of a good position: baby is at the same height as the breast, baby's chest and body are tucked snugly up against her, baby's ears, shoulders and hips are in a straight line. The baby's nose is at the nipple and chin at the breast. After baby is latched on, you can add pillows to support baby's weight.

Check for signs of a deep latch:

Baby's chin indents the breast; nose is near or lightly touching breast.

Baby's mouth is open wide, with most of the areola in his mouth.

You hear swallowing. You don't hear clicking or smacking.



Give baby an opportunity to burp

Get baby into a position that puts a little pressure on his belly. Rub or pat his back for a few minutes to bring up a burp. If he doesn't burp, it's OK. Breastfed babies often don't need to. If he spits up a little milk, that's OK too. It's normal.



How to support breastfeeding through the first year

Remember that the first month is the hardest. Breastfeeding is a learned skill, so she'll need extra support during that time.

Learn to prevent, recognize and treat challenges such as: sore nipples, engorgement, clogged ducts, and mastitis. If you think she needs expert advice you can attend a La Leche League meeting (www.llli.org) or contact a lactation consultant. (Search for one at www.ilca.org)

Don't be too quick to give formula if problems arise. There are benefits to exclusive breastfeeding (delaying that first bottle of formula) and giving formula means baby nurses less and milk supply decreases.

She can start pumping and you can start offering bottles of breastmilk once breastfeeding is well established. Usually around one month.

To learn more about breastfeeding, read [Pregnancy, Childbirth and the Newborn](#) or [Simple Guide to Having a Baby](#) by Simkin.

From Hospital to Home™

The Right Technology⁸

Which Journey?

Breast Milk Feeding Going Well

- Mother has no problems with initiation
- Infant goes to breast within one hour after birth
- Baby feeds eight to 12 times in 24 hours

Unique Situations

- Mother or baby has breastfeeding challenges
- Mother needs help initiating milk supply

Exclusively Pumping


- Mother and baby are separated due to health issues
- Infant is unable to breastfeed
- Pumping is mom's primary goal
- Pumping is mom's current goal

Which Stage?

Initiate.

Breast Milk Production Days 1-5

Initiating milk production is vitally important for building and maintaining a plentiful supply.

 Initiation Technology (used only on days one through five) closely mimics the pattern that term infants use in the first few days after birth. By day seven, mothers achieved 67% more milk.¹



Breastfeeding is best for baby and mother

Infant goes to breast within one hour after birth
Breastfeeding baby latches at breast eight to 12 times every 24 hours
Colostrum is produced first
Milk supply is initiated days two through five on average



Use of a Symphony® PLUS™ breast pump with Initiation Technology™ can help initiate milk supply

Mother or baby has prenatal, delivery, or post birth risk factors that benefit from breast pump intervention to support initiation

A Symphony pump with Initiation Technology can be used to complement the baby's feeds at the breast in order to initiate milk supply
Hand expression used in conjunction with Initiation Technology may facilitate the expression of colostrum in the first few days post birth




Use of a Symphony PLUS breast pump with Initiation Technology can help initiate milk supply

Baby is unable to breastfeed due to separation or health issues such as premature birth and cleft palate

The first pumping session should occur as soon as possible after birth. Mom should pump eight or more times daily
Hand expression used in conjunction with Initiation Technology may facilitate the expression of colostrum in the first few days post birth

Build.

Breast Milk Supply Days 6-30

 Once milk is initiated, mothers can build upon their initiation and establish their milk production using Medela's 2-Phase Expression® technology.



If mother and baby are separated during this time, the use of a personal use pump can help build supply

Mother and baby adjust to their breastfeeding relationship



Use of a Symphony breast pump can help build milk supply

The baby becomes more effective at breastfeeding over the first month helping to build milk supply

Continued pumping using a Symphony breast pump with 2-Phase Expression technology can help mothers achieve the full benefit of starting with Initiation Technology



Use of a Symphony breast pump can help build milk supply

After initiation occurs, the breast pump dependent mother should continue pumping eight or more times daily to build her milk supply with a Symphony breast pump

Maintain.

Breast Milk Production Months 2-12+

Mothers can maintain their milk supply to meet their baby's needs. Daily milk intake remains consistent from months two through six.⁶



Use of a personal use pump can help maintain supply, especially when mother goes back to work

Supply is established and meeting the needs of the baby
Provide breast milk and maintain production even when she can't be there



Use of a personal use pump can help maintain supply, especially when mother goes back to work

Supply is established and meeting the needs of the baby
Provide breast milk and maintain production even when she can't be there



Use of a Symphony breast pump can help maintain milk supply

Supply is established through continuity of care for this critical population and meeting the needs of the baby
Using a Symphony breast pump with 2-Phase Expression technology can help mother continue to provide breast milk and maintain production even when she can't be there

Key



Breastfeeding
Breastfeeding is best for baby and mother when possible.



Hospital Grade (Multi-User) Pump
Symphony® PLUS™ with Initiation Technology¹



Personal Use Pumps
Sonata®, Pump in Style® Advanced (not pictured) or Freestyle® (not pictured)



2-Phase Expression® Technology
2-Phase Expression technology is a breast pump suction pattern designed to mimic a baby's natural nursing rhythm. The Stimulation Phase is a quick and light suction pattern to stimulate milk flow. The Expression phase is a slower, deeper suction pattern to bring out more milk faster.



Initiation Technology™
Supports mothers with clinically researched breast pump technology to successfully initiate, build and maintain their milk supply. It also helps pump-dependent mothers of preterm and term infants express enough milk to support an exclusive human milk diet for their infant.

Indicators that breast milk feeding is going well

- ✓ Baby has three or more yellow stools in 24 hours after day four
- ✓ Three consecutive pumping sessions, achieving 20 mL each¹

- ✓ Baby has regained birth weight by days 10-14 at the latest
- ✓ Typically mothers produce an average of 750 mL by day 14²

- ✓ At the end of the first year, half of baby's calories come from breast milk
- ✓ Baby consistently gains weight according to WHO breastfeeding growth charts⁷

The American Academy of Pediatrics (AAP) and the World Health Organization (WHO) recommend breastfeeding mothers be taught hand expression.

For more information or to order Medela hospital grade (multi-user) and personal use pumps, please visit medelabreastfeedingus.com or call 800-435-8316.

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Sore Nipples & Engorgements



Tender nipples and breasts can occur during the early weeks of breastfeeding. Here are some ways to increase your comfort so you can enjoy this time more.

What causes sore nipples?

Sore nipples can happen anytime, but most often the first 1-2 weeks after delivery. It can be mild to severe soreness. Some discomfort can happen the first minute or two of breastfeeding as your baby pulls the nipple into the right position. This is normal, but soreness after the first minute or two is not. The most common cause of soreness after the first few minutes is poor positioning and latch. Other causes include: breast engorgement or infection, sensitivities to nipple ointments or creams, or the misuse of nipple shields or breast pumps.

Can I prevent sore nipples?

Yes. The best way to prevent sore nipples is to help your baby latch on the right way. Remember these tips:

1. Bring your baby to you with a wide open mouth.
2. Sandwich your breast in a C or U-hold to help your baby take a deep mouthful of your nipple and areola.
3. Aim your nipple up towards your baby's roof of her mouth towards the comfort zone.

How do I know my baby is latched on well?

Here are some signs that your baby is latched well:

- You feel a tugging, but no pain, rubbing or pinching while breastfeeding. Some discomfort the first minute or two when your baby first latches can be normal the first few weeks.
- Your baby's lower lip is rolled out.
- Your baby has most of your areola in her mouth.
- Your baby's chin is touching your breast and there is a small space between her nose and your breast.

How can I help the soreness go away?

- Fix the cause of your sore nipples. Get help from a lactation consultant to help you figure out why you are getting sore.
- Soothe your sore nipples by applying:
 - Expressed breast milk
 - An ointment* for sore nipples that states it does not need to be removed before breastfeeding. Apply only a thin layer to the nipples after breastfeeding.
 - Hydrogel pads* that are placed directly over the nipple, under your bra between breastfeeding and can last several days.

*Make sure to read the product instructions before using any of these nipple care products.

What causes engorgement?

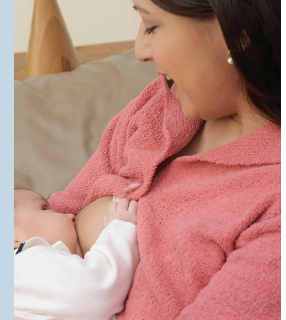
Engorgement happens when the breasts become swollen from infrequent, delayed or missed breastfeedings (or pumpings if your baby is unable to breastfeed yet). Engorged breasts can be hard, painful, red and hot to the touch. Keep in mind, most women experience some breast fullness the first 2-3 days after their baby is born. This fullness happens as your milk volume increases. Do not confuse this with engorgement.

Can I prevent engorgement?

Yes. Here are some ways to prevent engorged breasts:

- Breastfeed right after your baby is born.
- Breastfeed on demand, when your baby is showing hunger cues. This will be about every 2-3 hours. Do not skip feedings at night.
- Breastfeed on one side as long as your baby wishes to help drain your breast well. Listen and if you hear swallows, let her keep sucking on that side. If your breasts feel less full and you cannot hear swallowing any longer, offer the second side. She may or may not want more.
- Begin each feeding with the breast she drained the least. Usually this is the side she breastfed the least amount of time on.
- Avoid delaying or missing a feeding. Avoid supplementation.
- Avoid wearing bras that are too tight.
- If you are pumping for your baby who cannot breastfeed yet:
 - Start pumping as soon as possible, within 6 hours of your baby's birth.
 - Avoid missing a pumping session.
 - Make sure to drain your breasts well by massaging your breasts before and during pumping and doing hand expression after.

Correct positioning and latch can help you avoid sore nipples and engorgement.



How can I help the engorgement go away?

It is important to treat engorgement before it gets too painful. Severe pressure and swelling can cause breast tissue damage. Here are some ways to help:

- Apply cold after breastfeeding. Ice packs or a bag of frozen peas wrapped in a wet washcloth work well. Some mothers find that cold, raw, clean cabbage leaves provide relief. If using cabbage leaves, rinse before using. Place the cabbage leaf in your bra for 15-30 minutes two to three times a day. Avoid cabbage if you are allergic to it or develop a skin rash.
- To make milk flow easier:
 - Gently press on the areola with the pads of your fingers, in towards your breast for a minute or two. This will help soften the areola so your baby can latch easier.
 - Hand express or pump to start the milk flow.
 - Gently massage your breasts.

This is general information and does not replace the advice your healthcare provider. If you have a problem you cannot solve quickly, seek help right away. Every baby is different. If in doubt, contact your physician or other healthcare provider.



Breastfeeding the Preterm Baby

Why does my preterm baby need my breast milk?

Your milk is the one thing only you can give your baby. Preterm babies who don't receive their mother's milk may get sick more often and more severely. Later on, they also may have more vision or bone problems and developmental delays. Your milk provides your baby with nutrition, antibodies, enzymes and growth factors that no other food can give your baby:

- **Nutrients:** When you give birth early, your milk is higher in many of the nutrients that your baby needs, such as protein and iron.
- **Antibodies:** Live cells, that help protect your baby against infection and disease and strengthen your baby's immune system.
- **Enzymes:** To help your baby digest food.
- **Growth factors:** To help your baby's digestive system mature and work well.

Will I be able to breastfeed my preterm baby?

Yes. Be patient. Here are the steps mothers of preterm babies usually go through before their baby is able to breastfeed:

1. Pumping to establish and maintain milk supply.
2. Holding their baby skin to skin, also known as kangaroo care. This calms your baby and is the first step to getting closer to breastfeeding your baby.
3. Letting the baby practice breastfeeding, known as non-nutritive sucking.
4. Breastfeeding a few times a day. Your baby will probably receive some feedings through a feeding tube, by bottle or other feeding system a few times a day.
5. Exclusive breastfeeding.



I want to breastfeed my baby but my baby isn't able to yet. What should I do?

Get started with building up your milk supply. It is important to establish a full milk supply in the first few weeks after having your baby. This starts with pumping within 6 hours of delivery. Double pump using a multi-user, hospital-grade pump provided by your hospital. Your goal is to pump 8-10 times each 24 hours. The first few days you will only make a few drops to a few teaspoonsful of colostrum each time you pump. Over the next several days, the colostrum will change to thin, white breast milk and you will start making ounces instead of teaspoons. Keep this milk volume goal in mind: 750-1050 mL (25-35 oz.) each 24 hours by the time your baby is 2 weeks old. Keep a pumping log so you can see how your milk production is changing.

What can I expect when I start breastfeeding my baby?

At first, your baby may just lick at your nipple and not latch. Be patient. Although she has instincts, she needs to learn what to do. Preterm babies also need time to grow and develop their muscles and coordination to latch, suck, swallow and breathe while breastfeeding.

For practice breastfeeding (non-nutritive sucking), your baby's health care provider may even ask you to pump before attempting to breastfeed the first few times. This is to drain most of the milk out of your breasts so your baby doesn't get overwhelmed with the flow of milk.

Once your baby is able to breastfeed and get milk, your lactation consultant may recommend using a nipple shield.



Your milk is powerful. Your milk helps provide nutrition and protection against infection. Your milk helps your baby grow.

Your milk is the one thing only you can give your baby. Start pumping soon after birth to build a full supply for when your baby is ready to breastfeed.



When can my baby start to breastfeed?

When your baby can start to breastfeed depends on how early your baby was born and her health. Your hospital may also have policies that affect when you start breastfeeding. Research has shown that most babies:

- at 28 weeks: can root at the breast and latch-on
- at 31 weeks: can suck and get some milk
- by 36 weeks: can fully breastfeed

Will my baby be able to exclusively breastfeed when she is discharged from the hospital?

That depends on how early your baby was born. Some babies need to receive extra nutrients for a few weeks or a few months after they are discharged from the hospital. These extra nutrients help your baby grow since she was born early. This may mean that you have to mix some of your milk with fortifier which can be given to your baby after she breastfeeds. Talk to your baby's health care provider and your lactation consultant to learn more.

What is a nipple shield?



A nipple shield is a thin cover with small holes in the tip, placed over the nipple. It can be used when your preterm baby learns to breastfeed.

Research has shown that using a nipple shield while breastfeeding a preterm baby can help them remove more milk.

This is general information and does not replace the advice your healthcare provider. If you have a problem you cannot solve quickly, seek help right away. Every baby is different. If in doubt, contact your physician or other healthcare provider.



Jaundice & Breastfeeding

More than half of newborns are jaundiced during their first week. Jaundice is not a disease. It is a common condition that is usually harmless and goes away quickly.

What is jaundice?

A condition when your baby's skin and eyes look yellow. This yellow color is first seen in the face then moves to the chest and belly. As the levels, get higher, it may spread to the arms and legs. Jaundice may be hard to see if your baby has dark skin.

Is jaundice common?

Jaundice occurs in 50-75% of full-term babies and 75% of preterm babies. Your health care provider will check your baby's skin and eyes to see if she is jaundiced. If your baby is jaundiced, her blood levels may be checked to see what her bilirubin level is. If her bilirubin level is high, treatment for jaundice may be recommended.

Why is my baby jaundiced?

Jaundice occurs when there is extra bilirubin in the blood. We all have bilirubin in our blood from the breakdown of old red blood cells. During pregnancy, your baby makes extra red blood cells to support her oxygen needs. After birth, the extra red blood cells break down and release bilirubin into the blood. The liver filters the extra bilirubin out of the blood. This extra bilirubin leaves your baby's body through meconium or stools.

Is jaundice harmful for my baby?

If your baby's blood levels are high, jaundice can be harmful. Very high levels left untreated can cause brain damage, a condition called kernicterus. If your baby has high levels, it is important to follow your health care provider's recommendations for treatment to lower your baby's bilirubin levels.

Is there anything I can do to prevent jaundice?

Yes. The more your baby breastfeeds, the more she takes in and the more she will stool. This will help get rid of the extra bilirubin. So, breastfeed soon after birth and 8-10x each 24-hour period.

Normal Frequency & Color of Stools of Breastfed Infants

| Day | # of Stools | Color |
|-----|-------------|--------|
| 1-2 | 1+ | Black |
| 3-4 | 3+ | Green |
| 5+ | 3-4+ | Yellow |

Types & Causes of Jaundice in the Newborn

| Type | Begins | Possible Causes | Possible Treatments |
|---------------------------------------|--------------------------|--|--|
| Physiologic (normal newborn jaundice) | 2-3 Days | <ul style="list-style-type: none"> Breakdown of extra red blood cells Immature newborn liver | <ul style="list-style-type: none"> Frequent breastfeeding (at least 8 times per 24 hours) Watch and check bilirubin level if not getting better |
| Pathologic | within 24 hours of birth | <ul style="list-style-type: none"> Mother & baby blood type incompatibility (ABO, Rh) Liver disease Infection | <ul style="list-style-type: none"> Frequent breastfeeding (at least 8 times per 24 hours) Medical workup to find cause Phototherapy Blood transfusion |
| Breastfeeding | 3-5 days after birth | <ul style="list-style-type: none"> Poor intake (not breastfeeding frequently, poor latch) Not stooling enough | <ul style="list-style-type: none"> Frequent breastfeeding (at least 8 times per 24 hours) Increased breastfeeding time (baby-led) Lactation consult to improve latch, assess milk transfer, milk supply and assistance with supplementation if needed |
| Breast Milk | 5-7 days after birth | <ul style="list-style-type: none"> Unknown (may be some part of breast milk) | <ul style="list-style-type: none"> Frequent breastfeeding (at least 8 times per 24 hours) Phototherapy Alternating breastfeeding with donor milk or formula Interrupting breastfeeding for 24 hours |

If my baby has normal jaundice, what should I expect?

Bilirubin levels usually:

- Go no higher than about 12 to 15 mg/dL
- Peak between Day 3 and 5 and then go down (see table above for more information)

This is general information and does not replace the advice your healthcare provider. If you have a problem you cannot solve quickly, seek help right away. Every baby is different. If in doubt, contact your physician or other healthcare provider.

Does jaundice affect breastfeeding?

Some babies get extra sleepy and breastfeed poorly if they are jaundice. It is important to continue to attempt breastfeeding your baby but if your baby is not breastfeeding well, contact a lactation consultant who can help. Your baby may need to finger or cup feed or use a supplemental nursing system if she is too sleepy to latch and breastfeed well. If your baby needs to use one of these alternative feeding methods, you will need to pump your breasts after. Pumping will help your body establish and maintain the milk supply your baby needs once she is able to exclusively breastfeed without using these devices.

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A photograph of a woman in a light blue shirt breastfeeding her baby. The baby is wearing a light blue hat and is latched to the breast. The woman's hands are gently supporting the baby's head.

Mastitis

What is mastitis?

Mastitis is an inflamed or swollen area of the breast. The area may be infected with bacteria. Your breast may be red, hot and hard. The area may be tender or painful. It usually happens to one breast but can happen to both breasts. You may feel tired or nauseous or have chills or a fever.

What causes mastitis?

Mastitis can happen a few ways. Bacteria can enter the breast tissue through an open, cracked area on your nipple. Pressure from a plugged duct or tight bra can damage the inside breast tissue and bacteria can grow.

How is mastitis treated?

If you think you have mastitis, contact your health care provider. They may recommend taking ibuprofen to help with the pain and swelling. If you have red streaks on your breast or a fever, they may prescribe an antibiotic. You can continue to breastfeed your baby or pump. The infection is not in your milk.

- Wash your hands before breastfeeding or pumping.
- Heat, gentle massage or hand expression before breastfeeding or pumping can help the milk start to flow.
- Breastfeed or breast pump regularly, at least 8x/24 hours, to relieve fullness.
- Apply cold after breastfeeding to reduce swelling.
- Drink plenty of fluids and get plenty of rest.

Can I prevent mastitis?

Yes. Here are some tips:

- Help your baby to breastfeed with a good latch to avoid sore and cracked nipples.
- If you develop cracked nipples, wash the area with soap and water a few times a day. Use a nipple ointment or hydrogel pad between feedings.
- Do not always breastfeed your baby in the same position. Use at least 2 different positions throughout the day.
- Breastfeed or pump regularly to drain your breasts of milk. Your goal should be about 8x a day in the first few weeks. Skipping breastfeeding or pumping sessions can lead to plugged ducts which can turn into mastitis if left untreated.
- If you feel a PLUGGED DUCT, a small, hard lump in the breast, it is best to treat it early on. Apply heat to the area before breastfeeding and gently massage the area while breastfeeding. If it isn't gone in 2 days or you don't feel good, call your health care provider.
- Avoid tight bras that place pressure on parts of your breast. This makes it difficult for the milk to drain well.
- If you are weaning, wean gradually. Increase the time between feedings over a few days to a few weeks. Hand express or pump to relieve fullness between feedings.

What is thrush or nipple candida?

These are fungal infections caused by an overgrowth of yeast. It is not serious, but it can cause pain and discomfort for both you and your baby. You can still breastfeed but breastfeeding may become difficult for both of you. Your baby's mouth and your nipples may be sore.

How do I know if I have thrush or nipple candida?

Only your healthcare provider can diagnose thrush or nipple candida.

You may have:

- Red or purple nipples
- Shiny areolas
- Itchy or burning pain in the nipples or breasts
- Flaky appearing nipple

Your baby may have:

- White patches in her mouth
- Bright, red diaper rash

How is thrush and nipple candida treated?

Both you and your baby will need to be treated even if only one of you has symptoms. Yeast can be passed back and forth to each other. Your health care provider will give you an antifungal medication, such as:

- A prescribed or over-the-counter product to apply to your nipples.
- A solution to swab inside your baby's mouth after every feeding.
- An ointment for your baby's diaper area.
- A prescription drug you swallow.



To reduce pain, start on the least sore breast and switch breasts after your milk begins flowing.

If breastfeeding suddenly becomes painful, you could have a nipple or breast infection.



How can I prevent thrush or nipple candida from returning?

- Make sure to follow the treatment for the recommended time even if you start feeling better before or the yeast can grow back.
- Wash your hands before each breastfeeding and after each diaper change. Wash your baby's hands too. Clean your nails well and remove artificial nails where fungus can grow.
- Yeast grows well in moist, dark places. Change wet breast pads and diapers frequently. Avoid breast pads with plastic liners—they keep moisture in.
- Expose your nipples to air after breastfeeding. If this causes a throbbing pain, cover up with a cotton shirt or some other breathable material instead to keep your nipples warm.
- Wash all bras, shirts and towels that touch your breasts in hot, soapy water each day.
- Any plastic part that goes in your baby's mouth or on your breasts should be boiled for 20 minutes daily (pacifiers, toys, bottle nipples, pump parts).
- Avoid foods that support the growth of yeast such as sugar, dairy products, wheat, nuts, peanut butter, dried fruit and fruit juices.

This is general information and does not replace the advice your healthcare provider. If you have a problem you cannot solve quickly, seek help right away. Every baby is different. If in doubt, contact your physician or other healthcare provider.

Reaching Full Milk Production With A Breast Pump

Question: My baby was just born and can't breastfeed yet, what should I do to establish my milk supply?

Answer: Your body is ready to make milk, so start pumping with a multi-user, hospital-grade breast pump no later than 6 hours after your baby is born. Research has shown that moms who pump within one hour of birth have their milk come in sooner and are more likely to develop a greater supply of milk. Don't wait too long or it may be harder to reach your goal.

Begin pumping with your goal in mind:

By the time your baby is 2 weeks old, full milk production is 750-1050 mL each 24 hours (25-35 oz/day). Double pump, pump both sides at the same time, to save time and establish a better milk supply than pumping one side at a time.

Question: How often should I pump to establish my milk supply?

Answer: Your goal is to pump 8-10x every 24 hours. This is how many times each day your baby would breastfeed. Try to pump about every 3 hours. If you want a slightly longer stretch of sleep, don't go longer than five hours between pumping.

You may find it helpful to keep a pumping log so you can keep track of the number of times you pump. The more you pump, the more milk you will make. The reverse is true too. The fewer pumpings per day, the less milk you make.

Question: How long should I pump each session?

Answer: Day 1-3: Pump at least 10-15 minutes each pumping session. Then tilt the flange back and hand express any remaining colostrum in your breasts into the flange and collection container. You may only get a few drops to a few mLs of colostrum with each pumping session these first few days.



If your baby is unable to breastfeed after birth due to prematurity or other issues, pumping is the next best thing to establish your milk supply to help you reach your breastfeeding goals.

This is normal. Save this colostrum - every drop is precious for your baby.

After day 4: Once your milk is in, pump 15-30 minutes. Always pump 1-2 minutes after the last drop of milk to get those rich, high-fat drops of milk to help your baby grow. Remember to use your hands to help drain your breasts of milk - massage your breasts before and during pumping, gently compress your breasts during pumping and use hand expression after pumping.

Question: Is double pumping, both breasts at the same time, better than single pumping?

Answer: Yes, double pumping is better than single pumping. Double pumping is less time consuming than pumping one breast at a time. Research has shown that most mothers who double pump the recommended number of times daily get their milk in sooner and develop a better supply overall.

Question: Why do I have to make so much milk for my preterm baby?

Answer: Your baby may not be taking the same amount as a full term, healthy baby yet, but it is important to establish a full milk supply early on. Soon after birth, hormone changes happen that cause our breasts to make milk.

Each time you pump (or breastfeed), your body makes the hormone, prolactin. Prolactin helps your breasts make milk. Frequent pumping at regular time frames helps your body release prolactin. With each release, your breasts make more milk. If you don't pump enough times each 24 hours, this hormone gets too low and your milk supply will be low too.

Question: My baby is 2 weeks old and I am making over 750mL of milk each 24 hours. Can I pump less often now?

Answer: If you are providing milk for one baby, then you may be able to pump less often and still make the same milk supply. Remember, the goal is 750-1050mL (25-35 oz) each 24 hours.

- Try cutting back to 7x/24hours for a few days. If your milk supply doesn't go down, you could try cutting back to as few as 5x each 24 hours. Make sure to keep a pumping log during this time to keep track of how much milk you are making each 24 hours.
- Pump for a shorter time. Watch your milk flow. You may notice that you are able to drain your breasts quicker now. Most mothers find 10-15 minutes is long enough.

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 Spangler A. Breastfeeding: A Parent's Guide. 9th ed. Cincinnati, OH: Specialty Lithographing Co; 2010.



“Rather than pumping at set times, some moms find it simpler to focus on the total number of pumpings per day.”

Question: How can I boost my milk production?

Answer: If your milk supply is low, work on boosting it sooner rather than later. Here are some ideas to try:

- Pump more often. Pumping 8-12 times each 24 hours for several days works for most mothers. Be patient. It will take a few days for your hormone levels to rise and your milk supply to rise.
- Pump longer. Pump until 2 minutes after the last drop of milk or 20-30 minutes, whichever comes first and hand express for a few minutes after pumping.
- Use hands-on pumping techniques. Gently massage your breasts before and during pumping. Gently compress your breasts during pumping.
- Check your breast flange fit. Flange fit can change with time.
- Pump next to your baby's bedside or after holding your baby skin-to-skin.
- Look into prescription and herbal medicines. Check with your lactation consultant and/or healthcare provider for more information.

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Every baby is different, if in doubt, contact your physician or other healthcare provider.

Making the Most of Your Breast Pump

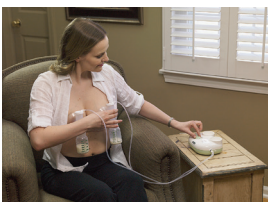
What should I do to get ready to pump my milk?

First read your breast pump instructions. Find a quiet, comfortable place to sit. Take a drink and snack with you. Make sure your pump is plugged in or has working batteries. Then:

- Wash your hands well with soap and water.
- Assemble the pump kit.
- Center the flanges over your breast(s) to make an air seal.
- For double pumping, it is helpful to use a hands-free bra or position your arm to hold both flanges in place while you turn your pump on. Then re-position your hands around the flanges over your breasts for hands-on pumping.

How long should I pump?

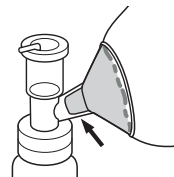
Not everyone drains their breasts in the same amount of time. On average, it takes 10-15 minutes if double pumping. If you find it takes longer, try some of the techniques described in this handout.



To check your breast flange fit, watch your nipple during pump.

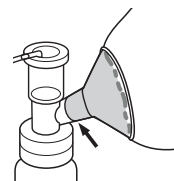
How do I know if the breast flange I am using is the right fit?

To check your breast flange fit, watch your nipple during pumping. It is best to watch once your milk flow has started. See the diagrams below to see which one looks like your nipple during pumping.



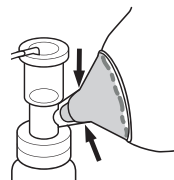
Good Fit

During pumping, your nipple moves freely in the breast flange tunnel. You see space around the nipple. Not much areola is drawn into the tunnel with the nipple.



Too Small

During pumping, some or all of your nipple rubs against the sides of the breast flange tunnel.



Too Large

During pumping, more areola is drawn into the breast flange with your nipple. Your areola may rub against the side of the breast flange tunnel.

**Additional breast flange sizes may have come with your breast pump or can be purchased separately.*



You can help mimic your baby by using hands-on pumping techniques while pumping to help drain your breasts better.

Is there anything I should do with the pump dials/buttons to help drain my breasts of milk?

Yes. Think about how your baby breastfeeds. Your baby latches on and sucks quickly until milk is flowing in her mouth. It takes a minute or two for the milk to start flowing. When the milk is flowing, she sucks slow down. When the milk flow slows, she sucks fast again to start another milk ejection reflex or let-down.

Most mothers have an average of four milk ejection reflexes during a breastfeeding session. So, when you start pumping, have the suction at your highest comfortable level and turn the speed up all the way. Be patient, just like with breastfeeding, it can take a minute or two for the milk to start flowing.

Once, your milk starts to flow, turn the speed down to allow long, sprays of milk to come out of your breasts. When the milk flow starts to slow or drip, turn the speed back up. This increase in speed helps your body let-down more milk or have a milk ejection reflex. Once the milk starts to flow again, turn the speed down. Repeat this until you are no longer able to get milk flow and your breasts feel well drained.

Is it normal for pumping to hurt?

No. If pumping hurts, check:

- The suction level. The strongest pump suction does not always pump more milk. You should feel a tugging when you pump, not pain. If you feel pain, your body tenses up and it is harder to release milk. Always, turn the suction level to your highest, comfortable level.
- The breast flange fit. If your flange is too small or too large, it can hurt to pump. Your milk may not flow as well if you have the wrong flange fit.

How long should I pump?

Not everyone drains their breasts in the same amount of time. On average, it takes 10-15 minutes if double pumping. If you find it takes longer, try some of the techniques described in this handout.

This is general information and does not replace the advice your healthcare provider. If you have a problem you cannot solve quickly, seek help right away. Every baby is different. If in doubt, contact your physician or other healthcare provider.

What is hands-on pumping?

Using your hands to help drain the milk from your breasts well. During breastfeeding, your baby's warm, little hands naturally rest on your breasts massaging and stimulating hormones to help your milk flow and production. You can help mimic your baby by using hands-on pumping techniques while pumping to help drain your breasts better.

Before

- Gently massage your breasts with the pads of your fingers. Use circular motions.
- Gentle, low heat applied to your breasts has been shown to increase time to milk flow.

During

- Gentle massage as described above to help drain the alveoli where the milk is stored.
- Compressing your breasts gently with your hand in a C-shape while milk is flowing can help drain your breasts better.

Should I hand express after pumping?

Yes. Hand expression after pumping has been shown to get those last high-fat sprays and drops of milk out that will help your baby grow. Remove the flange from your breast and place it under your breast as you hand express to collect the milk.

What else can I do to help my milk flow while pumping?

To trigger more milk ejection reflexes and help your milk flow, you can use your mind and senses. Get comfortable, relax and try a few of these suggestions to see what works best for you:

Mind Close your eyes, relax and imagine your baby breastfeeding, a waterfall or something else that relaxes you.

Sight Look at your baby or a photo of your baby. Some moms prefer looking at a magazine or their favorite book.

Hearing Listen to a recording of your baby cooing. If you are apart, call and check on your baby. Or, listen to your favorite relaxing music.

Smell Lie your baby's blanket or clothing on your shoulder to take in your baby's sweet smells while pumping.

References
Jones F. Best Practice for Expressing, Storing and Handling Human Milk. 3rd ed. Fort Worth, TX: HMBANA, Inc.; 2011.
Mohrbacher N. Breastfeeding Answers Made Simple: A Guide for Helping Mothers. Amarillo, TX: Hale Publishing, LP; 2010.
Spangler A. Breastfeeding: A Parent's Guide. 9th ed. Cincinnati, OH: Specialty Lithographing Co; 2010.



Storing and Handling Mother's Milk

Your milk is important for your baby's nutrition and health. By expressing milk, you can continue to give these precious gifts to your baby.

What types of clean containers can I use to store the breast milk I express?

Here are some different types.

- Glass with a leak-proof lid
- Hard, BPA-free plastic with a leak-proof lid
- Breast milk freezer bags
- Do not use thin disposable feeding bottle liners or sandwich bags. They can split when frozen.

How much expressed breast milk should I store in a container?

Store in the smallest amount your baby might take. It is better to warm up more milk than to have to throw away any leftover milk in the bottle. Here are some general guidelines:

- For babies 1-2 weeks old, 2-3 oz. (60-90 mL) per feeding
- For babies 1-6 months, 3-5 oz. (90-150 mL) per feeding
- If freezing your milk, always leave room for expansion.
- Just like any liquid you freeze, milk expands too, so do not fill up to the very top of the container.

The milk I stored is separated into two layers. Is that normal?

Yes, it is normal for your stored milk to separate into a cream layer on top and a more watery layer, on the bottom. Before giving to your baby, blend the two layers together by gently moving the storage container around. Do not shake.

Can I add freshly expressed milk to stored frozen milk?

Cool the fresh milk in the refrigerator before adding to already refrigerated or frozen milk. Use the date of the oldest expressed milk to determine the expiration date. Milk storage guidelines are on the back side of this page.

Do I need to label the containers that I store my milk in?

Yes, label with the date and time using a sticky label or non-toxic marker. If your baby is at a facility that cares for other babies or toddlers, make sure to include your baby's name on the label.

How do I thaw my frozen milk?

- Place it in the refrigerator the night before you plan to use it. Use this milk within 24 hours of thawing.
- Heat it up in a cup of warm water right before you plan to give it to your baby.
- Never use hot or boiling water to warm up your milk. Doing so can make the milk too hot and burn your baby's mouth and throat.
- Never microwave your milk. Doing so can cause hot spots in the milk that can burn your baby's mouth and throat.

How long can I store my expressed breast milk?

That depends on where you store it. The milk storage guidelines on this handout are for healthy babies who are at home. If your baby is in the hospital (preterm or sick), check with your baby's healthcare provider to find out what milk storage guidelines they recommend.

A few additional tips are:

- Freshly expressed milk is best. If you have stored milk at room temperature, give that first if you are going to be apart from your baby.
- If you plan to use your milk within 8 days, store it in the refrigerator. Otherwise, store it in the coldest part of the freezer.
- Never store your milk in the door of the refrigerator or freezer. It is more likely to defrost.
- Freshly pumped milk can be stored in a cooler with frozen ice packs (59 °F/15 °C) for up to 24 hours.
- If you follow the time frames in the storage guidelines table, you can keep your milk at room temperature, then refrigerate it, and then freeze it.
- The longer your milk is stored, the more vitamins and antioxidants are lost. But stored breast milk still has more health benefits than formula, so continue to pump and store your milk for your baby.

My thawed milk has a soapy odor. Is it spoiled?

Spoiled milk will smell spoiled. If it has a soapy odor, it is not spoiled. Some mothers make milk high in lipase, an enzyme that digests fat. When thawed, the frozen milk of these moms has a strong, soapy smell. This milk is safe for your baby to take but sometimes your baby will refuse this milk. If this happens and your baby refuses this milk, deactivate the lipase by scalding the milk first before freezing it. To scald your milk, heat it in a pot on the range just until bubbles form at the edges, then cool and freeze it.

Do I need to warm up my baby's milk?

If you have a newborn baby that needs milk given in a bottle, warm the milk up by placing in a cup of warm water. Test it to make sure it is not too hot before giving it to your baby. If your baby is a few months old, you can give chilled milk right out of the refrigerator. Some babies still prefer warm milk, so if your baby does, follow the guidelines above for warming it up.

This is general information and does not replace the advice your healthcare provider. If you have a problem you cannot solve quickly, seek help right away. Every baby is different. If in doubt, contact your physician or other healthcare provider.

Breast Milk Storage Guidelines

NOTE: When thawing frozen milk, label as thawed when completely thawed (i.e. no ice crystals present). Use the time when completely thawed to base acceptable time limits for use rather than when it is taken from the freezer. These guidelines for storage and thawing of breast milk are a recommendation. Contact your lactation consultant or breastfeeding specialist for further information.

| | Room Temperature 77°F (25°C) | Time in Refrigerator 39°F (4°C) | Time in Freezer 0°F (-18°C) |
|--|---|------------------------------------|---|
| Fresh Expressed or Pumped | Up to 4 hours | Up to 4 days | 6 Months - Best 12 Months - Acceptable |
| Thawed, Previously Frozen | 1-2 hours | Up to 1 day (24 hours) | Do Not Refreeze |
| Leftover from Feeding (baby did not finish bottle) | Use within 2 hours after the baby is finished feeding | | |

Storage times may vary for premature or sick babies

www.cdc.gov/breastfeeding/recommendations/handling_breastmilk.htm

References

1. Jones F. Best Practice for Expressing, Storing and Handling Human Milk. 3rd ed. Fort Worth, TX: HMBANA, Inc.; 2011.
2. Mohrbacher N. Breastfeeding Answers Made Simple: A Guide for Helping Mothers. Amarillo, TX: Hale Publishing, LP; 2010.
3. Spangler A. Breastfeeding: A Parent's Guide. 9th ed. Cincinnati, OH: Specialty Lithographing Co; 2010.

A photograph showing a woman in a light blue shirt sitting at a desk, working on a laptop. A baby is sleeping peacefully in a white cradle next to her. A smartphone is on the desk. The scene is set in a bright, clean environment.

Working & Breastfeeding Made Simple

Many women continue to successfully breastfeed and pump to provide their breast milk for their baby when they are apart.

When I go back to work, I want to continue to breastfeed. What are my choices?

Think about your breastfeeding goals. The more mother's milk your baby gets, the better. But breastfeeding does not have to be all or nothing. Choices include:

- **Breastfeed.** This could mean going to your baby for feedings or having your baby brought to you. Some mothers keep their babies with them at work or use reverse cycle nursing. This means breastfeeding often at home and working during their baby's longest sleep stretch.
- **Breastfeed and leave pumped milk for all missed feedings.** Breastfeed when you are with your baby and pump your milk for all missed feedings. One thing to remember is that if you miss feedings and don't pump to make up for the missed feeding, your milk supply will decrease over time, leaving you with less breast milk to give your baby.
- **Breastfeed and leave both pumped milk and formula for missed feedings.**
- **Breastfeed and leave formula for missed feedings.** Also think about finding a caregiver close to work rather than home. Keeping your baby close can reduce travel time, time apart, and your need to pump.

Should I pump and store my milk before I return to work?

In addition to breastfeeding, most mothers pump and store milk once or twice a day before returning to work. But keep in mind that once you're at work, the milk you pump one day can be left for your baby the next day. If you start pumping once a day about 3-4 weeks before going to work, you have time to practice with your pump and store a good reserve of milk. When you pump between breastfeedings at home, expect to get about half a feeding, which can be combined with breast milk you pump at other times.

Once I'm back at work, how do I keep my milk production steady?

Try not to miss a breastfeeding or pumping session. If your baby takes a bottle, you need to make up your missed feeding session with a pumping session. Otherwise, your body will think you are trying to wean and your milk supply will start to decrease.

Breastfeed your baby before you go to work and as soon as you get home from work. Breastfeeding when you are with your baby will help keep up your milk supply. Leave the pumping for when you are apart.

What do I need at work to pump and store my milk?



To help you get organized for going back to work, the essentials you'll want to consider are:

- **A breast pump to meet your needs.** Avoid used or borrowed mother-owned pumps, which may be worn out and unsafe to share. A double electric breast pump can make pumping go faster if you have to pump during breaks, a few times a day, many times a week (ex. working full-time). A manual pump can work well if you have longer breaks and only have to pump a few times a week (ex. working part-time).
- **A private, comfortable place to pump.** Federal laws now require this is provided by your employer if you have over 50 employees. Make sure it has an electric outlet unless you use a battery operated pump. Clean place to wash your hands and pump parts. If you are unable to wash your pump parts at work, consider having a few pump kits to use throughout the day and then wash them when you get home.
- **Time to pump.** Schedule your breaks to allow about 20 minutes for pumping and cleaning your parts. To figure out how many times you should pump at work, divide the number of hours you are away by three (include travel time).
- **Your hands.** Gently massaging your breasts before and during pumping and hand expressing afterwards has been shown to drain your breasts better and increase milk supply.
- **A hands-free bra.** This is not essential but may be helpful so you can massage and help drain your breasts well.
- **A place to store you milk until you can transport it home.** This can be an insulated milk storage bag with freezer packs or a refrigerator at work. Follow the milk storage guidelines located on the Storing and Handling Mother's Milk Q&A.
- **A picture of your baby.** This reminder of why you are pumping can help your milk let-down or start to flow. (table above for more information)

This is general information and does not replace the advice your healthcare provider. If you have a problem you cannot solve quickly, seek help right away. Every baby is different. If in doubt, contact your physician or other healthcare provider.

References
Jones F. Best Practice for Expressing, Storing and Handling Human Milk. 3rd ed. Fort Worth, TX: HMBANA, Inc.; 2011.
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Spangler A. Breastfeeding: A Parent's Guide. 9th ed. Cincinnati, OH: Specialty Lithographing Co; 2010.

How much milk should I leave for my baby?

- If you are apart from your baby for 8-12 hours, most babies will take 10-15 oz during that time. This is about 1/3 of your baby's daily intake.
- Starting at about five weeks, most babies take 25-35 oz total (breastfeeding & pumped milk) per day. This amount stays stable until your baby is about six months of age.
- Around six months of age, your baby will start taking more solids and daily milk intake starts to go down.

Average Feeding

| Baby's Age | Avg. Intake Per Feeding | Avg. Intake Per 24 Hrs. |
|--------------------------|-------------------------|-------------------------|
| First Week (after Day 4) | 1-2 oz. (30-60mL) | 10-20 oz. (300-600 mL) |
| 1-3 Weeks | 2-3 oz. (60-90 mL) | 15-25 oz. (450-750 mL) |
| 1-6 Months | 3-5 oz. (90-150 mL) | 25-35 oz. (750-1050 mL) |

What do I need at work to pump and store my milk?

When your baby is about 4 weeks old and is breastfeeding well, you can try giving your baby some pumped milk in a bottle.

- You may need to try different nipple shapes and sizes to see what your baby likes best.
- You may need to leave the room and have someone else bottle feed your baby. Your baby expects meals from you to come from your warm, soft breast, not a bottle nipple.
- Don't be surprised if your baby takes more milk from the bottle than you are able to pump at each session. The fast and more consistent flow of the bottle can cause some babies to take more milk than they need at a feeding.
- Try a slow-flow nipple to help prevent overfeeding.
- Also try paced bottle feeding to slow your baby down, hold the bottle up when your baby is sucking and keep it level when your baby takes a pause to swallow and breathe. Just remember to burp your baby a few times during the feeding as this technique can cause them to swallow more air.