## Pumping, Storing, and Bottle-Feeding Expressed Milk

While not all breastfeeding families will want or need to pump and bottle-feed, most will find it helpful to be able to offer bottles at times.

Balancing breastfeeding and bottle-feeding can take a bit of practice, but many families quickly find a system that works well for them.

## HAND-EXPRESSING

If you only need an occasion bottle, you can try just hand-expressing milk. Without knowing how to do this, some people may try squeezing the breast and pulling on the nipple, but that's not usually an effective method to remove milk.

For directions on hand-expression, the La Leche League's Womanly Art of Breastfeeding book says:

- Wake your breasts up- shake, massage, move them
- Place your fingers on opposite sides of your areola
- Press back toward chest
- Compress fingers toward each other, drawing slightly toward nipple but not sliding skin
- Release pressure, relax hand

Repeat several times. Don't expect anything immediately. Add massage whenever you like. Shift hand to a different position to move milk from other ducts.

You can collect the expressed drops of colostrum on plastic spoon. You can tip the spoon into baby's mouth or collect it and feed it with dropper. Collect milk by expressing into a pump funnel or large bowl.

For additional resources, see: http://kellymom.com/bf/pumpingmoms/ pumping/hand-expression/ which includes links to videos.

## CHOOSING A PUMP

There is a range of pump options to meet different needs. If you plan to pump less than a few times each week, a manual pump may be fine. If you are pumping exclusively with no nursing, you may want to rent a high-quality medical grade electric pump and work with an Internationally Certified Breastfeeding and Lactation Consultant (IBCLC) to support you in your goals.

Most families will want something in the middle. If you want to maintain your milk production when away from your baby such as while working, you will likely want a consumer-grade double electric pump. This type allows you to pump both sides at the same time and complete a pumping session within about 10-15 minutes.

Most families will have insurance coverage for a pump under the Affordable Care Act. Start with your insurance to find out your coverage and options. If you do not have insurance coverage, consider contacting WIC or purchasing a new pump yourself.

Since most pumps are designed to for a single-user for one baby, there are some risks to buying used, getting somebody's hand-medown, or passing your used pump on when you're done. A few pumps, including the brand Hygeia, make pumps that have an additional barrier and can therefore be shared safely.

## WHEN AND HOW TO PUMP

*Try to always wash hands before expressing milk.
*To maintain milk production, pump anytime you will miss a feeding, for example whenever baby gets a bottle. If you are able to express the same amount of milk your baby takes by bottle, it can keep your milk production in sync. If you're trying to increase your milk production, you can also pump just after nursing, or some people pump on one side while nursing on the other.
\& It may work best to pump when you feel more full, perhaps first thing in the morning.
*Make yourself as comfortable as possible, ideally in a private, uninterrupted, warm area.
*Pump until milk stops flowing freely, then for another two minutes to empty the breast. Use gentle breast massage or compression when pumping to maximize milk flow:

- Breast pressure: place a palm or flat fingers on the outer edge of your breast, not to close to your areola. Press gently, rocking your hand toward the nipple to move the milk there. Slide hand slightly toward nipple, rock inward again.
- Breast compression: Cup breast with your hand in a C-shape, thumb and fingers near the outer edge of the breast. Squeeze fingers and thumb together, gently compressing.
* When milk stops flowing, move your hand to a different part of your breast, and repeat.
* For many people pumping takes about 8-15 minutes. Pumping can take practice for your body to adapt to and let-down milk. As your body adapts to nursing, most women find they get about 2 ounces per session (total from both breasts). Some may get as much as 8 ounces.


## STORING YOUR MILK

The milk that you express first may appear thinner than cows' milk, and may look slightly blue. Milk expressed later in a pumping session may be thicker and whiter (or slightly different shades of other colors depending on your diet). After it's refrigerated or frozen, the fat may separate from the rest of the milk, and may float on top of refrigerated milk or look like circles in the frozen milk. This doesn't mean milk has spoiled, just re-mix it.

After pumping, you can transfer milk to another storage container such as feeding bottles or plastic milk storage bags. Storing in 2-4 ounce amounts will allow you to warm or thaw the milk quickly, and most babies will take somewhere in this range during most feedings. If you're planning to freeze it, don't fill the container all the way, since milk expands while freezing. Some women freeze milk in ice cube trays, and then transfer the milk cubes to storage bags so they have 1 -ounce servings ready to thaw.

Label the milk with date and time pumped. Rotate the stock of milk so you are using the oldest milk first.

Storage times: If you know you will feed the milk sometime today, milk can be kept at room temperature ( 70 degrees or cooler) for a maximum of 10 hours. It will keep in the refrigerator for a maximum of 8 days. If the milk was frozen within 24 hours of pumping, it will keep three months in the back of the freezer. In general though, to get all the great qualities of human milk, it is best to refrigerate as soon as possible after pumping and to use the milk as soon as possible.

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## PREPARING A BOTTLE

Temperature: Babies can drink milk at room temperature, warmed to body temperature, or even cool from the refrigerator. Some babies prefer it warm, so many parents warm it when convenient.

To warm a bottle of milk, you can set it in a container of hot water for a few minutes or use an electric bottle warmer. When you think it's ready, you can test the temperature by dotting a drop of milk on the inside of your wrist. If it feels like your skin temperature, it's ready for baby. If it's too hot, you can let it cool a bit and test again. Don't use a microwave to heat baby's milk. It can cause hot spots that are hot enough to burn baby's mouth and may damage some of the nutrients and antibodies in the milk.

To thaw frozen milk, you can place it in the refrigerator overnight, or in a container of warm water. If you are using milk storage bags, it can be good to put it in another container to reduce the risk of the milk leaking if the bag is not sealed or the seams fail. Once milk has thawed, serve immediately, or refrigerate and use within the next 24 hours. It's not recommended to re-freeze thawed milk.

## INTRODUCING A BOTTLE

Unless it's necessary to do so sooner, it's generally recommended to wait on introducing a bottle until breastfeeding is well established. This means that baby's latch is good, the breastfeeding parent is comfortable with nursing, and milk production is established. This is typically when baby is $3-5$ weeks old.

If supplementation is medically necessary before that point, an IBCLC can help you can choose the best method including spoon-feeding, "finger feeding" or using an "SNS" to supplement at the breast.

The reason to wait to introduce a bottle is that some babies develop "nipple confusion" and have a hard time switching back and forth between breast and bottle. In the early weeks, if given both options, they may choose the bottle, and you may have a difficult time continuing breastfeeding.

However, don't wait too long. If you do intend to use bottles at some point, it is best to start by 12 weeks, as some older babies develop a strong preference for mom and resist using bottles.

Here are tips for how to help bottles go well, and/or what to do if your baby is reluctant to take a bottle:

- Have someone other than the breastfeeding parent offer the bottle. Babies are smart and have learned that breastfeeding is their main way of getting nourishment and comfort. We can gently help them learn that taking a bottle is another option.
- While some babies are more likely to take a bottle when they're more hungry, most hungry babies will get fussy and that can be stressful.
Finding a balance between happy and hungry can be tricky.
- Other babies do best if you nurse first till they're mostly full and relaxed, then try the bottle.
- You can try different bottle-feeding positions. Some babies want to be held just like they're nursing; for others being held upright or facing outward may work better. You can also try walking around or showing baby something else walked while they eat.
- Many families are concerned about choosing the right a bottle. In general, select a bottle with a nipple shaped like the breast and/or like a pacifier that your baby takes. If needed, you can try different brands of bottles. But if they've rejected four or more bottles or nipple styles, then buying more may just be a waste of money. It's likely that the issue is not with the type of bottle - they just don't like bottles at this time. If you can, wait a week or so, then try again.
- You can try feeding from a small cup. Hold the cup near baby's lips, and tilt it so the liquid is at the edge, and let baby lap it up with his or her tongue.


## CLEANING BOTTLES

Before using them for the first time, you may choose to sterilize bottles and nipples by placing them in boiling water for five minutes. After that, it is generally not necessary to sterilize, you need only wash them in hot, soapy water. Buy a bottle brush for cleaning milk out of the bottom of the bottles and out of the crevices in the nipple. Squeeze water through the nipple holes to make sure they are cleared out. Rinse well, and let bottles and nipples stand in a rack to dry.

When babies drink from a bottle, their saliva and bacteria can contaminate the milk or formula remaining in the bottle, so plan to use that bottle only for the next hour or so, then dump out the remaining milk.

## HOW MUCH TO BOTTLE FEED

If your newborn is only getting an occasional bottle, plan on offering 2-4 ounces per feeding.

Over the course of a 24-hour day, a baby needs 2-2.5 ounces of human milk or formula per day for every pound he weighs (e.g., 20-25 ounces a day for a 10-pound baby.)

If this baby is bottle-fed fulltime, taking 8 feedings a day, that would be about 3 ounces per feeding. If this baby was getting a bottle twice a day, and being breastfed 6 times a day, he would likely take in about 3 ounces in each bottle. When nursing, he'd nurse till full - at least ten minutes per feed, though it might be as long as 20-30 minutes.

## BURPING

Breasted babies don't always need to burp after nursing, as they may not take in as much air as a bottle-fed baby. When baby is done with the first breast, try burping him. If baby does not burp within a few minutes, try again at the end of the feeding. If he is drowsy and seems relaxed and on the verge of sleep, he may not need to burp, so just try for a little while. On the other hand, if a baby is really gassy, you can tell by these cues: baby's belly is taut and round, he is grimacing and making faces, his body is stiff, and he may arch his back. This baby needs burping!

Babies often need to burp after a bottle. To burp a baby, the goal is to put some pressure on his belly at the same time you put pressure on his back. You can lay him so his belly is resting on your shoulder or on your leg, then rub his back in firm, slow circles to bring up the gas bubbles. Or, put him in a sitting position and rub his back.

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## SPITTING UP

Some babies spit up milk, especially while burping after a feeding. Spit-up may look like milk or may have cottage cheese-like curds in it. Generally, spit-up looks like a larger volume of milk that it really is.

If you baby spits up frequently, try sitting him up during feedings, and just after eating.

Call your baby's medical provider if the spit-up seems to be associated with pain, or if it is projectile vomiting more than twice per day. Call the doctor if baby is not growing well, does not have frequent BMs and wet diapers, or seems sick.

## DO WE HAVE TO BOTTLE-FEED?

No. It's possible for a baby to only nurse and never get a bottle. It's even possible for an exclusively nursing parent to leave their baby for a couple hours at a time for things like appointments, exercise, or brief errands. This works best with a flexible schedule and a supportive caregiver. Time leaving so that it's just after a nursing session, leave the baby with a caregiver for a couple hours, and return before baby will need to eat again.

