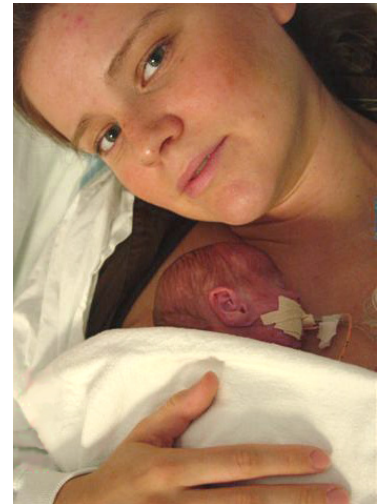
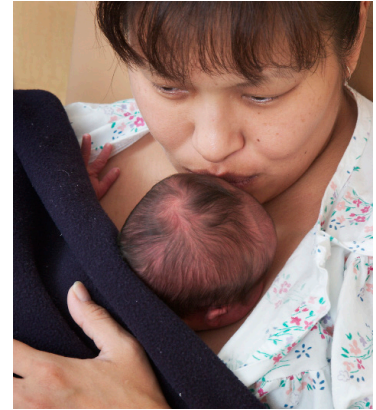


Breastfeeding Your Hospitalized Baby

A manual for new mothers



3rd Edition, November 2015

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Congratulations on the Birth of Your Baby!

Read this handout before or soon after the birth of your baby.

Your baby needs your milk! Our Neonatal Intensive Care Unit (NICU) team and Lactation Services encourage you to provide breast milk for your baby.

To Do

- Call your health insurance company to ask if your healthcare plan will pay for you to buy or rent a hospital-grade breast pump.

Breast Milk Is Special

All babies need mother's milk for good health. And, the longer you breastfeed, the more you protect your baby's health. For preterm or hospitalized babies, human milk is even more important.

When You Have a Preterm Baby

Do you know that breast milk from mothers with preterm babies is different from breast milk from mothers who deliver at term? Preterm mother's milk has more:

- Protein
- Certain minerals
- Anti-infection properties
- Special factors that help your preterm baby's immature immune system



Soon after your baby's birth, we will teach you how to use a hospital-grade breast pump. The milk you collect will be given to your baby in the NICU.

Your preterm baby will have these benefits from receiving your milk:

- Lower risk of infection
- Lower risk of allergy
- Lower risk of *necrotizing enterocolitis* (NEC), an intestinal infection
- Better feeding tolerance
- Better eye development
- Better brain development and higher IQ (*intelligence quotient*)
- Lower risk of *respiratory syncytial virus* (RSV), which infects the lungs and breathing passages

Getting Started

You can breastfeed your hospitalized or preterm baby, but the way you get started will be different for a while.

- Some **full-term hospitalized babies** can breastfeed right away, but many will not be ready.
- For **preterm infants**, it may be many days or weeks until their bodies are strong or mature enough to breastfeed well.

Soon after your baby's birth, you will be taught how to collect your milk by hand and with a hospital-grade electric breast pump. Learning to *express* (release) your milk with a pump like this helps you build and maintain your milk supply while your baby is small. In the NICU, your baby will be fed the milk you collect.

Medicines

Be sure to tell your lactation consultant or doctor about any medicines you are taking while providing breast milk for your baby. Over-the-counter medicines, prescription medicines, and other drugs can get into your breast milk.

Most medicines will not cause problems for your growing baby. But, it is still best to review them with your healthcare team.

Common Question

Can my body make milk even though my baby was born early?

Yes. Your breasts can begin to produce milk by 22 weeks gestation.

Questions?

Your questions are important. Call your doctor or health care provider if you have questions or concerns.

Expressing Breast Milk for Your Hospitalized Baby

Read this handout before or soon after your first pumping session.

To Do:

- Start hand expressing within 1 hour of giving birth.
- Learn to use a breast pump.
- Watch videos on “Maximizing Milk Supply” and “Hand Expressing” at www.newborns.Stanford.edu/breastfeed.
- Order a hospital-grade breast pump to use at home. Lactation Services will help you with this.
- Track your pumping sessions. Use the pumping record on page 31 of this book.
- Begin holding your baby skin-to-skin as soon as your baby is ready.

Building Your Milk Supply

The first days and weeks after birth are a critical time to start building a good, healthy milk supply. It is important to start hand expressing and pumping within 1 hour of giving birth.

Your first pumping will produce tiny drops of thick, yellowish milk called *colostrum*. You may see a decrease in colostrum after hand-expressing or pumping the 1st or 2nd time. Do not worry. This is common.

- By the 4th day after birth, most mothers produce an ounce or more of milk each time they pump.
- By the end of the 1st week, most mothers produce 500 ml (16 ounces) of milk a day.
- By the end of the 2nd week, you will likely produce about 750 ml (25 ounces) a day.



By the 4th day after giving birth, most mothers produce an ounce or more of milk each time they pump.



When to Call Lactation Services

Call Lactation Services if:

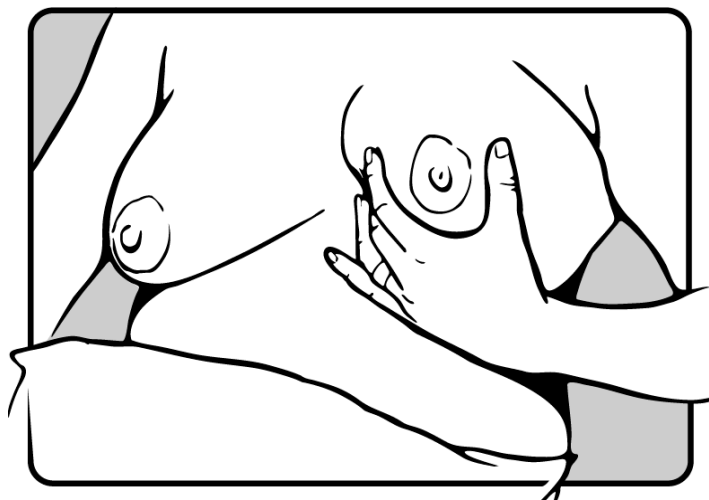
- Your milk supply is not increasing.
- You have sore nipples or breast pain.

Tiny babies do not need that much milk every day. But, it will not be long before they do. That is why it is so important to maintain a good supply.

Hand Expression

Hand expression is another way to remove milk from the breast. It often works better than using a pump in the first few days after birth.

- Begin by massaging your breast, starting at the back of the breast and moving toward the nipple. Use a stroking or circular motion.
- Next, make a “U” with your thumb and fingers and place the “U” just behind the areola (the dark area around the nipple). Lift and press toward the back of the breast. (See the drawing below.)
- Finally, gently press or squeeze your fingers together without moving your fingers across your skin. Do this several times in the same place.
- Rotate your fingers around the areola and repeat until the breast is empty.
- Ask a partner or friend to help you collect the small drops of colostrum from the nipple tip with a syringe. Or, if you are hand-expressing mature milk, collect the milk in a clean container as it sprays from outlets in your nipple.
- Watch the video “Hand Expressing” by Jane Morten. It is online at <http://newborns.stanford.edu/Breastfeeding/HandExpression.html>.



U-position, with hand at breast.

Kangaroo Care

- Kangaroo care is also called “skin-to-skin holding.” It is simply holding your baby on your bare chest with your baby dressed only in a diaper. You will both be covered in warm blankets.
- Kangaroo care helps your milk supply by stimulating *oxytocin*. Oxytocin is another hormone that helps lactation.
- We know that mothers who provide regular kangaroo care make up to 200 ml (about 7 oz.) more milk and are more successful when they start full breastfeeding.
- Kangaroo care can begin as soon as your baby is medically stable.
- Hold your baby skin-to-skin for at least 30 to 60 minutes each day, or as long as you and your baby are comfortable.
- Skin-to-skin holding has other medical benefits, too. It will:
 - Help regulate your baby’s temperature
 - Improve your baby’s breathing.
 - Help you produce more *antibodies* (infection-fighting factors). You will share these antibodies with your baby through your breast milk. Antibodies protect your baby against germs.

How to Maintain Your Milk Supply

Here are some important tips for maintaining your milk supply:

- **Use a hospital-grade electric breast pump that lets you “double pump.”** Double pumping means pumping both breasts at the same time.
- Besides saving time, double pumping is important because it stimulates release of *prolactin* better than single pumping. Prolactin is a hormone that tells your breasts to make milk.
- Start expressing right after giving birth, within the first hour if possible.
- Pump at least 8 times a day (or every 3 hours, even at night). Pump for 15 minutes each time or until flow stops. Then stop the pump, massage, and hand express.
- We know that you need to pump at least 100 minutes a day to maintain your milk supply. Pumping less than this means you will probably have a low milk supply.
- We also know that mothers who combine hand expression, “hands-on” pumping, **and** use an electric breast pump make more milk than mothers who do not.



A breast pump

- “Hands-on” pumping will increase your milk supply. To learn more, watch the video by Jane Morten on “Maximizing Milk Supply” at <http://newborns.stanford.edu/Breastfeeding/MaxProduction.html>.

Remember that the first 2 weeks after birth are the best time to create a full milk supply. Start a regular pumping routine now to maintain your supply.

Pump and Empty Your Breasts Often!

Pump often, until your breasts are **empty**.

- Empty your breasts well. This is important because it removes the *feedback inhibitor of lactation* (FIL). FIL is a protein in your milk that tells the breasts to stop making milk. When your breasts are filled with milk, the milk production is lower because there are high levels of FIL. Pump often to get the FIL out.
- Remember, pumping also releases *prolactin*, the hormone that tells your breasts to make milk. Prolactin must be released often for your body to produce milk.

Without complete emptying **and** frequent release of prolactin, your breasts will begin to *involute*. This means your breasts stop producing milk. It is very hard for your breasts to start producing milk again once they have stopped. That is why it is important to stick to your pumping schedule.

- Another good reason to empty your breasts all the way when you pump is because it increases the calories in the milk. Emptying your breasts each time means you will be collecting *hindmilk*, the milk that is released last. It is high in fat and contains the calories your baby needs to grow well.

Funnel Size

The funnel is the part of the pump that fits over your nipples. It is also called a *breast shield*. Getting the right size funnel is very important:

- The right size funnel will help you empty your breasts all the way.
- Using the right size funnel will help if you have sore nipples.

Talk with a lactation consultant for help with fitting the funnel.

Tips

- If you must travel a long way to visit your baby, consider pumping during your trip if you are the passenger. You can use a hand pump to empty your breasts. Also, some electric pumps have adapters that can be used in cars.

- Try a *hands-free bra* for double pumping. This is a bra that holds the breast funnel in place for you, so that you can use your hands for other tasks. Or, buy nursing bras that close in front, in the center. This way, you can close the flaps around the pump funnels and pump with your hands free.
- Consider buying a second set of pumping equipment that you can use if the first set is dirty.

Milk Let-Down

Milk let-down is the release or flow of milk that occurs after you begin pumping or nursing your baby. For some moms, it is hard to let down while pumping. Here are a few tips to make let-down easier:

- Massage your breasts:
 - Start your pumping session by massaging the breast.
 - Massage each breast gently but firmly, using a circular or stroking motion. Start at the back of the breast and move forward. Rotate your hands to get all around the breast.
 - Also, stop the pump to massage your breast about halfway through the pumping session. This will help you completely empty the breast.
- Pump right after enjoying skin-to-skin holding with your baby.
- Pump while at your baby's bedside in the NICU.
- Eat or drink something while pumping.
- Keep a favorite picture or other item nearby that reminds you of your baby.
- Try watching a short video of your baby.
- Pump in a comfortable spot where you feel relaxed.
- Use warm compresses on your breasts before pumping.
- Talk with a lactation consultant if you are still having problems with let-down.

Keep Your Milk Safe for Your Baby

Wash Your Hands

- Washing your hands is the most important thing you can do to keep your baby's milk safe from germs.
- Wash your hands well with soap and water before pumping.

Clean Your Pumping Equipment

- After each pump session, take apart all the pump pieces and wash them in hot soapy water. Rinse them well. Place the clean pieces on a clean towel to dry.
- Tubing usually does not need to be cleaned. But, you may notice that *condensation* (drops of water) forms inside the tube. This can cause mildew to grow over time. If you notice condensation, let the pump run for a few minutes (with tubing connected) while you clean up the other pump parts. This will help dry out the tubing.

Storage

When breast milk is:	It is safe for:
• Room temperature (freshly pumped milk only)	• 4 hours
• Refrigerated (4°C or 36 to 40°F)	• 48 hours
• Frozen (in a freezer with a separate door from the refrigerator section)	• 6 months
• Deep freeze (-20°C or 0°F)	• 12 months
• Thawed (but not warmed)	• 24 hours in refrigerator (do not refreeze)
• Warmed for a feeding (use medium-warm water to warm milk; do not boil or microwave)	• 1 hour at room temperature • 4 hours in refrigerator

- Use Medela Pump & Save bags to store milk for your baby in the hospital. Your nurse or lactation consultant can show you how to use these bags.

Transport Milk Correctly

- When possible, transport breast milk before freezing it.
- Place the milk in an insulated bag with a frozen gel pack.
- When traveling long distances with frozen milk, follow these steps to keep the milk from thawing:
 - Keep the milk bags together in a cooler.
 - Put frozen gel packs all around the bags.

- Fill any extra space in the cooler with crumpled paper or towels to help insulate the milk.
- Do not use ice cubes to keep milk frozen. They will speed up the thawing of your frozen milk.

Labeling

To make sure stored breast milk is used safely, **make sure all bags are properly labeled:**

- Place a bar code sticker with your baby's name on each milk bag. Ask a nurse for these stickers when you visit your baby in the NICU.
- Write the date and time of collection on each sticker.

Time-Saving Tricks

- To make your nighttime pumping easier, prepare your equipment before going to bed. Remember, fresh breast milk is fine at room temperature for 4 hours. You can simply pump and go back to sleep. Place your milk in the refrigerator as soon as you get up for the day. This will reduce extra steps in the middle of the night.
- Try Medela Quick Clean antibacterial wipes for cleaning pump parts quickly.

Common Questions

Q: It has been 2 days since my baby's birth, but I haven't been pumping because I don't have milk yet. Is that OK?

No, you should still use the pump every 3 hours. It is common for moms to pump only small amounts or even just a few small drops in the first days after birth. This liquid is called *colostrum* and it should be collected and given to your baby. Don't worry if there are not enough drops to collect. You should pump anyway to ensure that prolactin has been stimulated and that your body is getting the message to make milk. Your milk volume should increase between days 3 and 5 after giving birth.

Q: Does my baby really need these tiny drops of colostrum?

Yes, your baby should receive this special milk for the first feedings (either fresh or thawed after being frozen). Colostrum is high in protein and has special anti-infection and anti-inflammatory properties.

Q: My first pumping session produced colostrum, but now I'm not pumping any colostrum. What happened to my milk?

Don't worry – this happens to many mothers. It does not affect how much milk you will be making starting on days 3 to 5. Pump every 3 hours and expect your milk supply to begin to increase on day 3. Call Lactation Services if your supply has not increased by 5 days after birth.

Q: Do I need to pump at night?

Yes, it is a good idea to pump once each night. Remember, you need to remove FIL from your breast and stimulate prolactin to maintain your milk supply. Try not to let more than 4 or 5 hours pass between nighttime pumping sessions. (See “Time-Saving Tricks” above.)

Q: What is the difference between foremilk and hindmilk?

Foremilk is the milk that is released first when you pump, and hindmilk is milk released at the end of a pumping session. Hindmilk is higher in calories and fat content. It is important that you pump your breasts to empty them so that your baby will get this nutritious hindmilk. Your infant needs these extra fats and calories for growth.

Q: Is freshly pumped milk better than milk that has been stored?

Freshly pumped milk should be used whenever possible. Use milk that has been refrigerated or frozen only when fresh is not available.

Q: Do I need to bring my pump when I come to visit my baby?

No, the NICU has all the equipment you need for pumping when you visit your baby. Ask for a pump to be rolled into your baby’s room.

Q: I have an electric breast pump at home. Can I use it?

We advise using a hospital-grade pump. Electric pumps bought for home use do not work well for a mom who is relying only on a pump to maintain her milk supply.

Most insurance plans pay for the rental of a hospital-grade pump while your baby is in the hospital. The lactation consultant will help you arrange for a rental pump before you are discharged from the hospital.

Q: Where do I get more storage bags?

We will provide storage bags while your baby is in the hospital. Ask your baby’s nurse for more when you need them. You will use about 1 box of bags every 3 days.

Questions?

Your questions are important. Call your doctor or health care provider if you have questions or concerns.

Nursing Your Baby in the NICU

Read this handout before you begin putting your baby to your breast.

To Do

- Call Lactation Services to help you put your baby to your breast.
- Hold your baby skin-to-skin every day.
- Keep pumping.

We know that breastfeeding (nursing) is **not** more stressful than bottle feeding for a hospitalized or preterm infant. In fact, both full-term and preterm infants are able to maintain their body temperature and oxygen saturation, and coordinate sucking, swallowing, and breathing better while breastfeeding than during bottle-feeding. But, it might be hard to get your baby to nurse.

Knowing When Your Baby Is Ready

Every mother-baby pair is different when it comes to being ready to breastfeed. A lot can depend on the baby's gestational age. How you manage breastfeeding is unique to you and your baby.

Some premature infants start showing signs of being ready to breastfeed as early as 32 weeks (adjusted age), while others are not ready until about 37 weeks (adjusted age). The *adjusted age* is gestational age at birth plus the number of weeks since birth.



Every mother-baby pair is different when it comes to being ready to breastfeed.

There are no set rules for the best time to start breastfeeding, since each baby develops at a different rate. In general, you can start breastfeeding when your baby:

- Can coordinate sucking, swallowing, and breathing
- Swallows without choking
- Makes mouthing behaviors such as sucking attempts, licking, searching, or rooting with a wide mouth
- Sucks on a pacifier
- Has wakeful, alert periods

When You Start to Breastfeed

No matter when you and your baby are ready, early breastfeeding involves ongoing kangaroo care and closeness of mother and baby. Kangaroo care is key to learning to breastfeed! See “Expressing Breast Milk for Your Hospitalized Baby” to learn more about kangaroo care.

First tries at breastfeeding are usually rooting at breast and licking drops of milk from the nipple. Over time, your baby will begin to latch and remove some milk from your breast. The amount of milk your baby can remove will slowly increase as your baby gets stronger and more efficient at the breast.

At first, learning to position and latch may seem complex. Ask your baby’s nurse or the lactation consultant for help. They can give you helpful tips. Soon, these parts of breastfeeding won’t seem so challenging.

Even though your baby is learning to breastfeed, remember that pumping will be the main way to maintain your milk supply. Pump after every feeding attempt until your baby masters breastfeeding.

Positions

Good positioning of your preterm or hospitalized infant is helpful for breastfeeding success.

- Although not required, skin-to-skin contact (kangaroo care) can be helpful for early breastfeeding attempts.
- Sit up straight in a chair with good back support. A small footstool might be helpful to support your lower back.
- Make sure that your baby’s body, shoulders, and head are well-supported for the best latching success. A preterm baby needs this support so they don’t lose their latch when they pause between sucks.
- Use pillows to support your baby at the breast.

- Always position your baby so that the nose, belly button, and knees are lined up and facing you. Also, be sure that your baby's head is not flexed too far forward or stretched too far back.
- Football-hold and cross-cradle hold are the best breastfeeding positions for preterm infants or full-term infants who need extra support. These positions are described on the next pages.

Football Hold

- Place a pillow along your side.
- Tuck your baby under your arm so that their legs and feet are under your armpit. Your baby's nose and mouth should be close to your nipple and lined up with where your nipple naturally points.
- When your baby is at your **right** breast, your **right** hand should be placed around the back of your baby's neck with your palm supporting baby's head, neck, and shoulders. Your fingers should wrap around to touch each ear. Your forearm can be used to support your baby's torso. Your **left** hand will support your **right** breast. (Reverse this hand placement for feeding at the left breast.)
- With the hand that is not supporting your baby's head, place your thumb on the areola across from your baby's nose. Place your index finger across from your baby's chin. Make sure your baby's body is tucked in close to the side of your body and breast.



An infant breastfeeding in football hold.

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Cross-Cradle Hold

- Place a pillow across your lap (if you have a long torso, you may need 2 pillows). Place your baby on the pillow with their nose, belly button, and knees lined up and facing you.
- If your baby is at your **right** breast, use your **left** hand to support your baby and your **right** hand to support your breast. In this case, you will rotate your **right** hand to form a “U” shape to support your breast. Your **left** hand will be around baby’s neck with palm supporting the infant’s head, neck, and shoulders. Your fingers should wrap around to touch each ear. Your forearm can be used to support baby’s torso.
- This position allows for good support of your small baby and better control to help with latching. Do not simply cradle your baby in the crook of your elbow because this does not provide enough support for your small baby during breastfeeding.



An infant breastfeeding in cross-cradle position.

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Latch

Your first attempts to latch may be as simple as encouraging your baby's rooting reflex and letting your baby lick a few drops of milk off your nipple. These are very successful early breastfeeding tries for a preterm baby. As preterm babies grow and become stronger, they will develop the ability to grasp the nipple and hold it in their mouth. And, your baby's ability to remove milk from your breast will slowly improve. This can also be true for full-term infants who have been ill or have other health issues.

Getting Started

- Latching will be easier if your baby is awake and ready to feed. Use gentle waking techniques to bring your baby to a quiet alert state – try changing your baby's diaper, sitting your baby upright, talking to your baby, or gently massaging your baby. If your baby does not fully wake, do not be discouraged. This is common. Just hold your baby skin-to-skin this time and try again later.
- Hold your breast with your thumb and index finger on opposite sides of your areola. Apply pressure with fingers to form a "sandwich." This will help shape the nipple and breast tissue so your baby can latch well.
- Hand-express a drop of milk on your nipple to place on your baby's lip.
- Brush the nipple from your baby's upper lip to lower lip to encourage a wide mouth. This response is called the *rooting reflex*. You may need to do this several times to get your baby to root.
- When your baby's mouth opens wide (roots) with the tongue down, pull your baby's body to the breast and quickly put the nipple and a portion of the areola into the baby's mouth.
- Maintain the compression or "sandwich" of the nipple and areola until baby is latched well and sucking. You might find it helpful to hold this "sandwich" throughout the entire feeding to help your baby keep the latch.
- When your baby is latched on correctly, you will feel a firm pull with each suck, and your nipple will not easily fall out of your baby's mouth.
- Use your hands to massage and compress your breast while your baby is nursing. This will help your baby remove milk.

Nipple Shields

A nipple shield is a thin, nipple-shaped silicone device that fits over a woman's nipple. Nipple shields have many uses for both full-term and preterm infants.

Here are some of the benefits of using a nipple shield with a preterm infant:

- Preterm babies often have low muscle tone, which makes it hard for them to create the suction they need to latch well, hold the latch, and breastfeed well (remove milk). The nipple shield helps the infant create the suction pressure needed to nurse well. As preterm infants develop and become stronger, they outgrow the need for the shield.
- Research shows that preterm infants can remove more milk when using a shield for nursing.
- The nipple shield also helps the small preterm infant fit the mother's nipple and areola into their small mouth.



Using a nipple shield for nursing.

Test Weights

Weighing your baby before and after breastfeeding helps us know how much milk your baby is able to remove from your breast. We use a special scale that measures your baby's weight in grams. A weight gain of 1 gram is equal to 1 milliliter of milk volume.

As you begin to breastfeed more, you can start checking feeding weights. You will do this many times before your baby is discharged from the hospital. Ask your nurse or lactation consultant to show you how to use the scale. Then you will feel comfortable using a scale at home after your baby is discharged.



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A baby scale measures weight in grams.

Common Questions

Q: My baby used pacifiers in the NICU. Will this affect my baby's ability to latch properly at my breast?

Maybe. But keep in mind that while pacifier use is often not recommended for full-term infants, it is a medical need for most hospitalized infants. The pacifier allows the infant to suck when they are under stress, such as during blood draws. The sucking releases hormones to help with pain and stress. This benefit outweighs the possible negative effect it can have on breastfeeding. But when you can, offer your own nipple as a pacifier.

Q: My baby is showing signs of being ready to breastfeed but cannot yet take in large volumes of milk. What can I do?

You can pump your breasts right before nursing. Your baby will then get the benefits of pacifying at the breast without drinking much milk. This is called *non-nutritive sucking*. Pumping before nursing is also helpful for early breastfeeding attempts, where fast flow might make it hard for your baby to coordinate sucking, swallowing, and breathing.

Questions?

Your questions are important. Call your doctor or health care provider if you have questions or concerns.

Low Milk Production

Causes, treatment, and prevention

This handout explains the causes of low milk production and offers tips to help increase milk production.

What is low milk production?

Low milk production is when a mother's body makes less than 16 ounces of milk a day at 1 week after birth, or less than 24 ounces a day at 2 weeks after birth. The most common reason for low milk production is not emptying the breasts often enough.

About 5% of all mothers (5 out of 100) are not able to make enough milk for their babies to grow well. For mothers with babies in the Neonatal Intensive Care Unit (NICU), low milk production is more common.



Early skin-to-skin contact with your baby may help you keep your milk production from drying up.

What causes low milk production?

Milk production sometimes stays low even if the mother breastfeeds often or is pumping 8 times or more a day. Sometimes this is due to a physical cause. Other times, we do not know the cause.

Some possible causes of low milk production are listed below and on the next 3 pages. The ones with an asterisk (*) after them have been seen but are not proven.

Maternal Endocrine (Hormonal) Disorders

- *Hypothyroidism* (underactive thyroid gland)
- *Polycystic ovarian syndrome* (disorder that changes how a woman's hormones work)

- Infertility (maternal endocrine cause)*
- Pituitary disorders* (The pituitary gland produces many different hormones, including prolactin, the hormone needed to make breast milk.)

Maternal Physical Conditions

- Anemia (low red blood cell count)
- Postpartum hemorrhage (excessive bleeding), which can lead to anemia or Sheehan's syndrome, a pituitary hormone deficiency
- Retained placenta
- Eating disorder, or too much dieting
- Obesity or high body mass index (BMI)
- Gastric bypass surgery
- Infection*
- Other maternal illness*
- First delivery and over 40 years old*

Maternal Breast Problems (Primary or Secondary)

- Abnormal or *asymmetric* (irregular) appearance, size, or shape; or little or no growth in puberty
- Little or no growth in pregnancy
- Breast surgery, biopsy, or other trauma to the breast
- Radiation to the chest
- No fullness by the 6th day after birth or prolonged, unrelieved engorgement

Medicines or Drugs Taken by the Mother

- Alcohol
- Diuretics such as Lasix
- Decongestants such as Sudafed
- Birth control medicines with hormones, especially estrogen
- Nicotine

Infant Conditions

These conditions in the baby can lead to low milk production if the mother is not pumping 8 times a day:

- Cleft of the hard or soft palate
- Very small chin (*micrognathia*) or other disorders of the bones in the skull and face (*craniofacial abnormalities*)
- Immature or disorganized suck
- Prematurity (less than 37 weeks gestation)
- “Tongue-tie” (*ankyloglossia*), caused by a short *frenulum*, the tissue that connects the bottom of the tongue to the floor of the mouth

Tips to Help Milk Production

Here are some tips to help protect and increase your milk production:

- **Express milk from your breasts 8 or more times a day.** The best way to increase milk production is the way nursing babies do it – they empty the breasts more fully and more often. If your baby isn’t able to breastfeed, try pumping every 2 hours during the day, and at least once during the night. Keep pumping for 1 to 2 minutes after the milk stops flowing. Make sure you are using a hospital-quality, double electric pump. Don’t depend on anything less.
- **Do "kangaroo care"** (skin-to-skin holding of your baby) for at least 1 hour every day. This is very important if you are only pumping. Early skin contact may help keep your milk production from drying up around 4 weeks after birth. See “Expressing Breast Milk for Your Hospitalized Baby” (pages 3 to 10) for more details.
- **Use “hands-on” pumping** and hand-expression every time you pump. When the milk stops flowing, use your hands to express the milk that the pump didn’t remove. See “Expressing Breast Milk for Your Hospitalized Baby.”
- **Eat something while you pump.** Eating releases the hormone *cholecystokinin*, and that releases the hormone *oxytocin*. Oxytocin makes your breasts empty more completely.
- **Listen to relaxing music** while pumping.
- **Try a different pump funnel.** There are different sizes and different kinds of plastic. Some women respond very well to a larger funnel. We have samples you can try. This may or may not make a difference.
- **Try fenugreek.** This is an herbal supplement you can get without a prescription. Ask your nurse for more information.

- **Talk with your health care provider about drugs to increase milk production.** Metoclopramide (Reglan) is prescribed in the United States. Domperidone (Motilium) has fewer side effects but has to be made by a specially trained pharmacist, so it isn't easy to get.
- **Try acupuncture.** Acupuncturists know which points on the body help milk production, and they can teach you how to massage these points yourself. You can also read about it in Michael Reed Gach's book, *Acupressure's Potent Points*, pages 158 to 160. According to another author, Steven Clavey, 1 p.m. is the best time of day for acupuncture. (Acupuncture and acupressure are similar, but acupuncture uses thin needles and acupressure uses massage to get to the points on the body.)
- **Try special foods.** In many cultures, people bring gifts of special foods to new mothers – foods that are high in protein, nutrients, and calories. Here are some foods that “folk wisdom” says increase milk production:
 - Oatmeal (Africa)
 - Red plums, chicken soup with ginger (China)
 - Black pepper or fried ginger (India)
 - Azuki beans, rice gruel, soup and vegetables, lotus roots (Japan)
 - Seaweed soup (Korea)
 - Cotton seeds (Mexico)
 - Anise (The Netherlands and Sweden)
 - Cumin, cotton seeds, goat's stomach (Pakistan)
 - Clams or ginger broth (Philippines)
 - Banana flower soup (Thailand)
 - Brewer's yeast and alfalfa (USA)
 - Pork feet soup with hearty vegetables (Vietnam)

Questions?

Your questions are important. Call your doctor or health care provider if you have questions or concerns.

Preparing for Discharge and Going Home

Leaving the hospital

Congratulations! You are almost ready to take your baby home. This handout offers tips for discharge planning and transition to breastfeeding at home.

To Do

- Make plans to get a breast pump to use after your baby goes home.
- Make plans to stay overnight in the hospital in the days leading up to your baby's discharge.
- Practice breastfeeding before discharge.
- Practice using the sensitive baby scale.

Discharge

By now, you have probably practiced breastfeeding your baby many times. Over the next few weeks, you and your baby will work to transition to full breastfeeding.

During this time, you may need to rent a breast pump to use at home. You may need the pump for 2 or 3 weeks beyond your baby's original due date.

Most health insurance does **not** cover the cost of renting a breast pump once your baby is no longer staying at the hospital. So, it is wise to plan now how you will pay for the rental on your own. Call your insurance provider to check your plan benefits.



You will practice breastfeeding many times while your baby is in the hospital.

If you live outside the Seattle area, you may want to rent a pump from a place that is closer to your home. And, if you receive WIC services, now is the time to call your WIC office to ask about a pump you can borrow.

If your baby has ongoing special nutrition needs, a member of your health care team will discuss them with you. A specific feeding plan will be in place before your baby's discharge.

In the days before discharge, it may be helpful to stay the night in the hospital with your baby. This lets you stay close by and practice caring for your baby before you go home. This is a good time to work on breastfeeding.

This practice time also allows us to check *test weights* (see page 17 in "Nursing Your Baby in the NICU"). Weighing your baby before and after breastfeeding shows how much milk your baby is getting directly from your breast. This information will help us create your discharge feeding plan. The lactation consultants will be happy to help you with this part of getting ready to leave the hospital.

What to Expect at Home

Most times, preterm babies are ready for discharge before their original due dates. Because of this, your baby may still have *immature feeding behaviors* when you leave the hospital. Some of these behaviors are:

- Not waking or giving feeding cues
- Falling asleep at your breast
- Slipping off your nipple

With this in mind, try these tips:

- Plan to continue pumping often. This will maintain your milk supply until your baby is an expert at breastfeeding.
- Offer your breast when your baby is fully awake and giving you cues. In the first week or two at home, your baby might not be able or ready to try breastfeeding every time. As babies get bigger and older, they can breastfeed more. We do not advise on-demand feeding for a preterm infant until the baby shows steady growth and is able to take in enough milk on a regular basis.
- If a breastfeeding session is working – your baby is well latched, sucking in rhythm, *and* you can hear swallowing – then let your baby feed for 20 to 30 minutes. If feeding is *not* working, move on to supplementing with a bottle. Pump within 10 minutes of starting the breastfeeding session.



Continue kangaroo care at home while you work toward full breastfeeding.



Weighing your baby before and after breastfeeding shows how much milk your baby is getting directly from your breast.

- Use the nipple shield as needed to help your baby latch in these early days and weeks at home. In time, your baby will no longer need the shield. There is no hurry to stop using the shield. Some preterm babies will wean from the shield around the time of their original due date. Other babies may use the shield for a longer time.
- Use your pumped breast milk to supplement your baby's direct breastfeeding. You might also need to use formula if your milk supply is low.
- Between feedings, offer your baby your breast for comforting and pacifying. This is called *non-nutritive sucking*.
- Continue kangaroo care (skin-to-skin contact) at home while you work toward full breastfeeding.
- Use a baby scale at home as you and your baby get close to full breastfeeding. Checking your baby's weight before and after feeding will help safely guide you and your baby to full breastfeeding without supplement. It is important to closely monitor your baby's weight. Your baby should gain about 15 to 30 grams each day.
- Your baby will slowly get better at breastfeeding as immature feeding behaviors are replaced with more mature ones. Your baby will probably be fully breastfeeding by 2 or 3 weeks after your original due date.

We Are Here to Help

Even after your baby leaves the hospital, you are welcome to return for a visit with a lactation consultant. We will meet with you and your baby to help work toward your breastfeeding goals.

Your commitment to pumping, kangaroo care, and breastfeeding is a gift to your baby that only you can give. And, this special gift will bring long-lasting health benefits to both your baby and you.

Things to Do Before Discharge

- _____
- _____
- _____
- _____
- _____
- _____
- _____

Questions?

Your questions are important. Call your doctor or health care provider if you have questions or concerns.

Breastfeeding Resources

This handout provides websites and phone numbers for organizations that can support you as you breastfeed your new baby.

Information and Organizations

Academy of Breastfeeding Medicine

www.bfmed.org, 800.990.4226

American Academy of Pediatrics – Breastfeeding and the Use of Human Milk

www.pediatrics.aappublications.org/content/129/3/e827

Baby Friendly Hospital Initiative

www.babyfriendlyusa.org

Breastfeeding Online

Jack Newman, M.D.

www.breastfeedingonline.com/newman.shtml

Centers for Disease Control and Prevention – Breastfeeding

www.cdc.gov/breastfeeding

Exclusively Pumping

www.exclusivelypumping.com

Kelly Mom

www.kellymom.com

La Leche League

www.llusa.org or

www.lalecheleague.org

877.452.5324 (helpline), 800.525.3243,

206.522.1336 (Seattle)

National Institute of Child Health and Human Development

www.nichd.nih.gov, 800.370.2943

Public Health – Seattle & King County

www.kingcounty.gov/healthservices/health/personal/breastfeeding.aspx,

206.296.4786



There are many organizations that can support you as you breastfeed your new baby.



UWMC has earned an award called the “Baby Friendly Hospital Initiative” from UNICEF and the World Health Organization. This award is given to hospitals that provide a positive environment for breastfeeding families by following the “Ten Steps to Successful Breastfeeding.”

Stanford School of Medicine: Getting Started with Breastfeeding

www.newborns.stanford.edu/Breastfeeding

U.S. Department of Health and Human Services Office on Women’s Health

www.womenshealth.gov/breastfeeding

Within Reach and Breastfeeding Coalition of Washington State

www.withinreachwa.org, 800.322.2588

World Health Organization – Breastfeeding

www.who.int/topics/breastfeeding/en

Groups, Classes, and Support Services

La Leche League

For Seattle groups, call 206.522.1336

NAPS (Northwest Association for Postpartum Support)

Doula service

www.napsdoulas.com, 206.956.1955

PEPS (Program for Early Parent Support)

www.peps.org, 206.547.8570

Medicines, Drugs, and Breastfeeding

Infant Risk Center

www.infantrisk.com, 806.352.2519

LACTMED

www.toxnet.nlm.nih.gov/newtoxnet/lactmed.htm

Breast Pumps and Supplies

Apria

425.881.8500

Breast pump rentals for mothers with Group Health.

Medela

www.medela.us

Medela’s website allows you to search for rental stations in or near your zip code. The site also offers basic breastfeeding information.

Nurturing Expressions

www.nurturingexpressions.com, 206.763.2733

Nurturing Expressions delivers rental pumps to UWMC. Their staff helps with 3rd-payer billing for many insurance plans and medical coupons.

Village Maternity

www.villagematernity.com, 206.523.5167

At University Village, 10 minutes north of UWMC.

WIC (Women, Infants and Children)

www.doh.wa.gov/YouandYourFamily/WIC.aspx, 800.322.2588

Many WIC offices have breast pump loaner programs for their clients who are returning to work or school, or who have a medical need that requires pumping. Call your local WIC office directly for more information.

Milk Banks**Human Milk Banking Association of North America**

www.hmbana.org

Mother's Milk Bank

www.rmchildren.org/programs/milkbankcolorado

Northwest Mothers Milk

www.nwmmb.org

Return to Work**Business Case for Breastfeeding**

www.womenshealth.gov/breastfeeding/government-in-action/business-case-for-breastfeeding

U.S. Department of Labor

www.dol.gov/whd/regs/compliance/whdfs73.pdf

Break time for nursing mothers.

Preterm Infants**Websites****Breastfeeding Your Premature Baby Using a Nipple Shield**

www.medelabreastfeedingus.com/forprofessionals/tips-and-solutions/132/breastfeeding-your-premature-baby-using-a-nipple-shield

Parents of Premature Babies (Preemie-L)

www.preemie-l.org

Vermont Oxford Network

www.vtoxford.org

UC San Diego Health System

www.health.ucsd.edu/specialties/obgyn/maternity/newborn/nicu/spin/parents/Pages/default.aspx

Books

- *The Breastfeeding Mother's Guide to Making More Milk*, by Diana West and Lisa Marasco (2009)
- *Kangaroo Care: The best you can do to help your preterm infant*, by Susan M. Ludington-Hoe (1993)
- *The Nursing Mother's Companion*, 6th edition, by Kathleen Huggins (2010)
- *The Premie Parents' Companion: The essential guide to caring for your premature baby in the hospital, at home, and through the first years*, by Susan L. Madden (2000)
- *The Womanly Art of Breastfeeding*, 8th edition, LLL International (2010)

Also see the booklist at the Parents of Premature Babies (Premie-L) website, www.premie-l.org.

Questions?

Your questions are important. Call your doctor or health care provider if you have questions or concerns.

Breast-Pumping Record

UWMC Lactation Services

- Use this form to keep track of how often you pump.
- In each hour box, write in the amount you pumped.
- Pump 8 times a day. A good plan is to pump every 3 hours during the day and a little less often at night. Pump during the night so that no more than 4 to 5 hours pass between 2 pumping sessions.
- If you pump less than 5 times a day, you risk losing your milk supply. Milk production improves with 8 or more pumping sessions a day.
- You can also use this form to track how much milk your baby is taking. Ask your NICU nurse how much your baby should have in a 24-hour period.

Today's Date ▼	A.M.						P.M.						Total Times Today ▼	Total Amount Today ▼	
	12	1	2	3	4	5	6	7	8	9	10	11			