



**UMMC Newborn  
Medicine**

# **Feeding Your Preterm Infant**

**GRIN BIG!**

**Growing Readiness  
for Infant Nutrition  
Breastfeeding  
Initiatives & Gains**

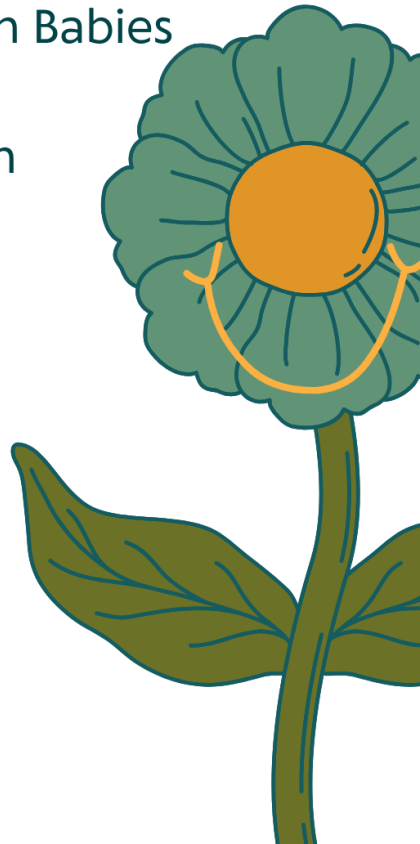


A guide for families  
providing human milk  
for their premature  
babies



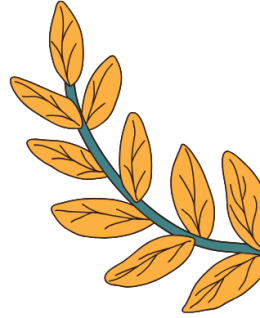
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# WELCOME

***WE ARE EXCITED TO  
SUPPORT YOU AND  
YOUR BABY.***



**Your baby needs your milk!**

At The University of Mississippi Medical Center, we know that your milk is the best nutrition for your ill or premature infant. We ask all families to express/pump milk for their babies for at least the time that they are in the Neonatal Intensive Care Unit (NICU).

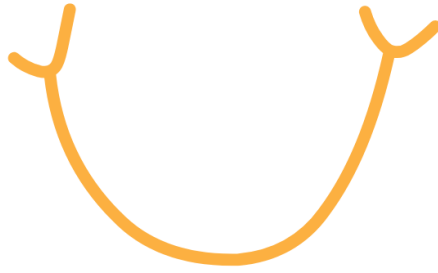
All babies need their mother's milk, but preemies and infants who are ill may benefit even more from it.

Preemies that are fed their mother's milk have fewer infections and are discharged to home sooner!

We can't wait to work with you and share more about your magical milk.

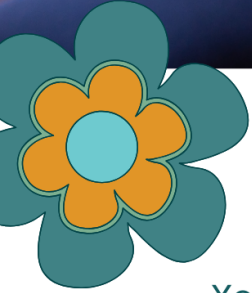


**THE NICU TEAM**



# Human Milk for Premature Babies

- Fewer life-threatening infections and feeding problems, and a shorter hospital stay
- Improvement in digestion and absorption of nutrients
- Lower risk of developing necrotizing enterocolitis (NEC)
- Better brain development long-term
- Stronger defense against pathogens



## Making Milk for your Baby



- You will need to express milk for you baby:
  - Hand expression, Hand Pump, Electric Pump
- It is best to express milk within 6 hours of birth
- The first drops of breast milk are called "*colostrum*"
  - It looks yellow, It's **Liquid Gold!**
  - Use your hands and a breast pump to express the power packed drops.
  - Pump early and often
- Use your pumping log as your guide



# Hand Expression of Milk



Global Health  
Media



Ann Witt, MD



Jane Morton,  
First Droplets



Unicef UK Baby  
Friendly

## Hand Expression Steps

Start by washing and cleaning your hands with soap and water.

Get comfortable. Take a deep breath. Relax your shoulders. Think about your baby.

Gentle waking up of the breasts to stimulate oxytocin and milk let down with gentle circular and stroke/petting like motions and gentle tapping.

Walk your fingers down your breast towards the nipple until you feel the changes in the breast tissue (usually about 1 to 1.5 inches behind the nipple). It becomes softer. Create a **“C” shape** with your thumb pad above the nipple and finger pads below.

With **“C”** shape **press back** (as if trying to get behind the nipple). **Compress** finger pads, thumb pad and whole hand together. No stripping nor sliding motion. This should NOT hurt.

**Relax** you fingers and hand without losing contact with the breast to release.

Repeat in a rhythmic pattern similar to baby nursing at the breast. At first, nothing will appear, then you may see drops.

Press back. Compress. Relax/Release.

Collect colostrum drops with a spoon or with a 1ml colostrum collector syringe pulling back on the plunger.

Move your **“C”** shape to a different area of the breast when drops flow less.

Hand express each breast 8-10 times in 24 hours. Include at least one session overnight.

# “Mouth Care” with Mother’s Milk for Your NICU Baby

When full-term babies feed at the breast, milk coats or *paints* the inside of the baby’s mouth and throat with protective substances that help lower the chances of infections, especially in the ears, throat and lungs.

In the NICU, babies are often too small or sick to feed at breast or receive their mother’s milk in a bottle. We do the next best thing: *paint* the inside of your baby’s mouth several times each day with drops of your milk, a NICU procedure called **mouth care** (also called oropharyngeal care).

## Does mouth care with my milk help lower the chances of infection in my NICU baby?

Mouth care with your milk is one part of many NICU practices in lowering the chances of infection in your baby. Mouth care may be especially important in lowering the chances of lung infections in premature babies who need CPAP or a ventilator to help their breathing.

## How do the protective substances in my milk work in my baby’s mouth and throat?

Researchers think there are three ways that mouth care may help lower the chance of infections.

### 1. Protective parts of the milk pass into your

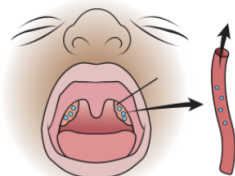
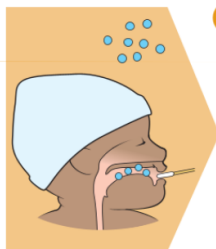
**baby’s blood stream.** Tonsils and adenoids are part of the body’s overall infection-fighting system, and are referred to as **oropharyngeal lymphoid tissues (OFALT)**. Protective substances in your milk are pulled inside these OFALT tissues, which pass them into your baby’s blood stream, lowering the chances of many kinds of infections.

### Protective Substances in Your Milk Work in Your Baby’s Mouth

Rodriguez et al., *J Perinatol* 29 (2009): 1-7.

Sohn et al., *J Perinatol* 36 (2016): 106-111.

Sweeney et al., *Nature* 8 (2018): 15112.



### 2. Your milk keeps harmful germs from sticking to your baby’s mouth and throat

Some parts of your milk, called **natural killer cells**, look for and directly kill harmful bacteria in your baby’s mouth and throat. Other parts, called **oligosaccharides**, work like magnets, searching for harmful germs. They stick to the parts of the germs that want to reach your baby’s tissues, making them harmless. An entire army of **good bacteria** in your milk forms a protective shield that keeps harmful germs from getting to your baby’s mouth and throat.

### 3. Your milk works together with your baby’s saliva to kill harmful germs.

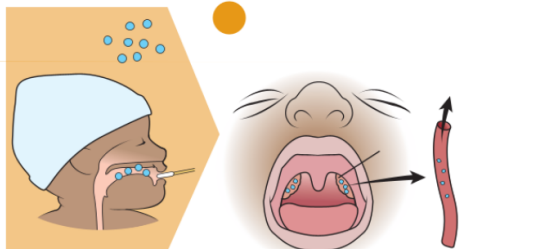
Special substances in your milk stimulate naturally-occurring protection in your baby’s saliva to become active and powerful. This milk-saliva partnership makes it hard for harmful germs to live and grow in your baby’s mouth and throat.

## Is mouth care with my milk safe for my baby?

I was told he is too little (or sick) for feedings by mouth? Many researchers have shown that mouth care with mothers’ milk is safe. Also, babies enjoy the taste and smell of their mother’s milk and start sucking and making smacking sounds. We will show you and your baby’s father how to do mouth care so it can be your job when you are in the NICU.

## How often and how long should my baby receive mouth care with my milk?

We will start mouth care as soon after birth as you are able to make a few drops of milk. Although click each each NICU baby is different, mouth care is given every 3-4 hours from birth until your baby is able to receive your milk several times each day by breast or pro te care held bottle. pro te tive held



# Your Milk is a Vital Sign



- The milk you make for your baby is so critically important, that we consider it a **vital sign**.
- We will ask about your milk production when we round so we can cheer you on. We also wish to offer you support as you meet challenges. We are here to help!
  - You can ask your nurse for help. They can contact a lactation consultant for you.
  - We have Breastfeeding Champions who have specialized NICU lactation training. Look for this logo!



- The Outpatient Lactation Clinic at UMMC!
  - Staffed by newborn clinicians who specialized in lactation medicine
  - We offer support and can answer your questions
  - We can help order a personal electric pump
  - Ask your nurse to message us OR
  - Call us directly to make an appointment.
  - No referral is needed.

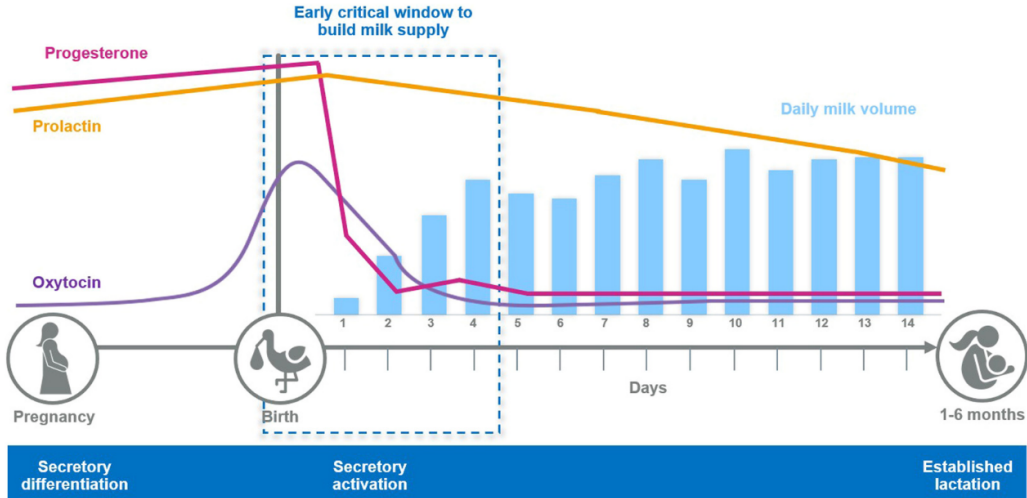


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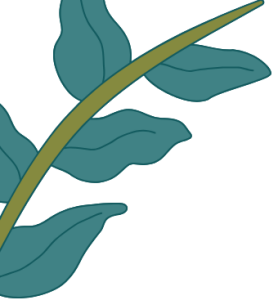
# Get off to a good start



- Tell your body to make milk with a breast pump while your baby cannot nurse.
- There is a **critical window** to build a milk supply early after birth.
- Pumping early and often helps to build necessary milk making cells and hormones.
- Avoid the **Milk Making Mismatch!**
  - You should be making **MORE** milk than your baby is taking for feeds initially.
  - Your daily milk amount will be in **excess** to what baby eats until your baby is closer **term**.
  - Jump on the milk making bus early to be able to arrive at your discharge destination with a full milk supply!



**PUMP EARLY. PUMP OFTEN. PUMP EFFECTIVELY.**



# Pump Like a Baby Breastfeeds

## Prepare:

- Take 3 deep cleansing breaths to reset
- Connect to your baby by looking at photos and videos
- Gentle tapping of the breasts with your finger pads to help release oxytocin

## Before your milk “comes in”

Use your pump on the fast cycle (higher number) and a lower vacuum/suction for stimulation

## After your milk “comes in” (Postpartum day 3-5 average)

1. Start with the fast cycle (higher number) for 1-2 minutes
2. Switch to a slower cycle (lower number) after 1-2 minutes
3. Vacuum/suction should feel comfortable, no pain. Too high of a suction collapses milk ducts and can cause damage

Consider using a hands free pump bra  
Limit pumping sessions to 15-20 minutes

# Electric Pumps

## VIDEO INSTRUCTION

### Ameda Elite



### Ameda Platinum



English



Spanish



## GRIN TIP


### **Pump early and often**

- The first few days of frequent pumping is essential
- It is important to pump early and often
- You will make drops of colostrum the first few days
- Then your **“Milk Comes in”** between day 3 and 7 and changes in color and amount
- Frequent pumping early means long-term success for the future
- “Engorgement” or breast swelling can be uncomfortable. It is important to take care of your breasts kindly.
  - See the next page for how to help



### **Coming to Volume!**

- **500 ml** or **17 ounces** in 24 hours within 10 days
- **750 ml** or **25 ounces** by 14 days
- Use your pump log as your guide for recommended daily volumes
- Coming to volume tells the milk making cells to turn on and make milk!
- At first, the milk you make will often be more than your baby is given, but this is how protect your milk supply for the future success

Day	QRIN BIQ! Amount Pumped 								Day Total	Target
Day of Birth	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		Drops
Day 1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		Drops
Day 2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		Drops
Day 3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		25-75ml 1-2.5oz
Day 4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		75-150ml 2-3.5oz
Day 5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		150-225ml 6-7oz
Day 6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		225-300ml 7.5-12.5oz
Day 7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		300-375ml 10-12.5oz
Day 8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		375-450ml 12.5-15oz
Day 9	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		450-525ml 15-17.5oz
Day 10	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		525-600ml 17.5-20oz
Day 11	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		600-650ml 20-22oz
Day 12	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		650-700ml 22-23.5oz
Day 13	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		700-750ml 23.5-25oz
Day 14	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		700+ ml 25+ oz



Information for breastfeeding families

# Increasing breastmilk supply for a baby in the NICU

Frequent stimulation of the breasts, by breastfeeding or using a breast pump during the first few days and weeks, is essential to establish an abundant milk supply.

## Get off to a good start

Begin pumping or hand expression, as soon after the birth as possible, preferably in the first few hours. Pumping 8 or more times per day notifies your breasts that they need to produce more milk. The pump substitutes for the suckling your baby cannot currently do. Use a double pump kit. This stimulates your milk supply better than pumping each breast individually. We recommend that you use a hospital grade breast pump when you pump. It is the only type that is designed to start your milk supply when you are not breastfeeding yet. Pump for about 15 minutes each time. When the milk stops flowing, you can do some hand expression to remove the remaining milk.

## Hand Expression First Droplets



## Pump regularly

Continue to pump 8 or more times per day. It does not need to be on a schedule. Some parents are able to pump 8+ sessions during their awake hours so that they can take a 4-5 hour break in the middle of the night to sleep. If you miss a session, make up for it as soon as you can. When you visit your baby, use the breast pumps in the NICU so you won't miss a session. Just bring your own kit with you.

## Avoid these things that are known to reduce breastmilk supply

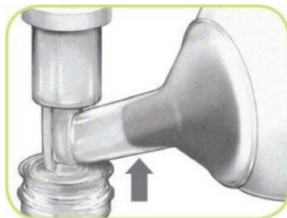
- Smoking
- Caffeine
- Birth control pills and injections
- Decongestants, antihistamines
- Severe weight loss diets
- Sage or peppermint (excessive amounts)

## Make sure that your flange fits

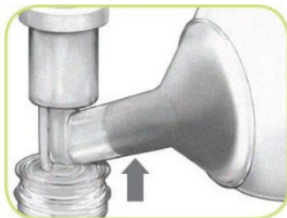
You will know it fits if:

- Your nipple stretches easily in the flange.
- Only the nipple is pulled into the flange, none of the areola.
- Your breast "empties" all over with no lumps or full pockets of milk.
- There is gentle motion of your breast tissue outside the flange during each suction cycle.
- There is no pain, only a tugging sensation.
- There is no compression ring or blanched skin around the areola.

Watch what happens during a pumping session. Your nipple size may change during a pumping session, or over the weeks that you use a breast pump. There are larger flanges sizes available if you find that yours is too tight.



**Good Fit**  
Space seen around nipple.



**Too Tight**  
Nipple rubbing along tunnel.

## Pump like a baby feeds

At the beginning of your pumping session, start your pump on low suction and fast cycles. Your baby will start sucking fast and light. Gradually turn the suction up over the first few minutes. Once the milk begins to flow, that means your let-down reflex has started; this is the time that your baby would be sucking slow and deep. Turn your pump cycling down and continue increasing the suction until it begins to pinch. Then turn it back a bit. That will be the right suction level for you. Don't turn the suction beyond when it begins to feel uncomfortable. There are some breast pumps that do these adjustments automatically.



## Pump Flange Fitting TABLE

The information provided is intended solely for general educational and informational purposes only. It is neither intended nor implied to be a substitute for professional medical advice. Always seek the advice of your healthcare provider for any questions you may have regarding your or your infant's medical condition. Never disregard professional medical advice or delay in seeking it because of something you have received in this information. Feel free to duplicate per creative commons license CC BY-ND. Lactation Education Resources 2022



take a deep  
breath

## Stimulate your let-down reflex

Let-down is when the milk is flowing easily. Stress is a major problem for your let-down reflex and is common, of course, among NICU parents. Here are some suggestions to help:



- Hold your baby skin-to-skin.
- Smell your baby or your baby's clothes.
- Look at pictures of your baby.
- Listen to the sounds your baby makes.
- Listen to relaxing music or nature sounds.
- Massage your breasts.
- Relax your shoulders, do neck rolls.
- Use visualization; think about rivers of breastmilk or think of a peaceful place.
- Eat and drink something while pumping.
- Pump prior to a stressful event.
- Don't watch the collection bottles.
- Get a back or foot massage.
- Warm pack on breast to help with let down or a warm wash cloth



# Kangaroo Care

Direct skin-to-skin time (or Kangaroo Care) with your baby provides benefits to both you and your baby in the following ways:

- Stabilizes your baby's heart rate and breathing and helps maintain body temperature
- Improves your baby's weight gain
- Calms, comforts and promotes restful sleep for your baby
- Helps your baby acquire healthy bacteria from your skin
- Improves your milk production
- Promotes attachment and bonding
- Promotes better breastfeeding later



- Wear a loose-fitting, button-down or zip shirt.
- Encourage your partner to do skin-to-skin also.
- Try to hold your baby skin-to-skin every visit.



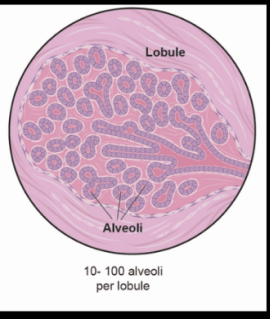


# Breast tissue is delicate. Full and ripe grapes in bunches

With inflammation, milk sacs are large and lumpy. Cold compresses decrease swelling.



Don't mash the grapes!



# Mastitis and Engorgement in Breastfeeding

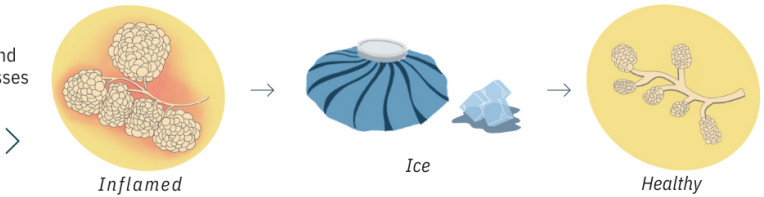
## General Information:

- Mastitis is inflammation of the breast. You may have redness, pain, and swelling.
- Most cases of mastitis resolve by treating inflammation (see below). Antibiotics are not needed in most cases.
- Milk is made and stored in groups of milk sacs called “lobules.” Milk is not stored in ducts.
- Painful lumps are caused by full milk sacs. Ducts become narrow from swelling around them. Milk may flow slowly but there is no “plug.” Squeezing will not help.
- Engorgement refers to breasts with very full milk sacs. It is not mastitis.
- Skipping feeding or pumping may cause redness and discomfort. This is not infection. This is inflammation.

## Treatment:

- Use ice or cold compresses. Cold reduces pain and inflammation. Cold helps like it helps a sprained ankle.
- Use anti-inflammatory and pain-relieving medications: ibuprofen and acetaminophen (paracetamol).
- Wear a supportive bra to help swelling.
- Deep massage and squeezing will cause injury and make the inflammation worse.
- Do not feed more or express more milk on the side with the problem. Stop feeding or pumping if no milk is flowing. The swelling must improve first.
- Contact your healthcare provider if you do not feel better in 24 hours. Breastfeeding and breast milk are safe with mastitis, abscesses, and taking antibiotics.

With inflammation, milk sacs are large and lumpy. Cold compresses decrease swelling.



## Abscesses and Milk Cysts:

An abscess is a collection of pus (infected fluid).

A milk cyst (galactocele) is a collection of milk.

Abscesses and milk cysts often occur with too much milk production (hyperlactation).

An abscess will need to be drained. A milk cyst will not need drainage if it is small. You can still breastfeed from the breast with the abscess or cyst, even before drainage.

## Prevention:



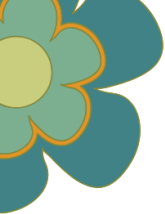
**Lymphatic  
Drainage**



The ABM Parent Handouts are supported by a grant from the W.K. Kellogg Foundation.

This information is a general guide to discuss with your health care professional. It may not apply to your family or situation.

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Medicine



# Breast-Steps



## Love

### Skin to Skin on Chest

- Helps control baby's temperature heart rate and breathing
- Promotes bonding
- Increases milk supply
- Promotes healthy bacteria



## Lick

### Skin to Skin Near Breast

- Mom hand expresses drops of milk for baby
- Baby smells, licks, tastes milk drops on lips



## Latch

### Expressed Breast Milk in Latching Position

- Latching practice as able
- Practice daily during quiet alert periods
- Baby can begin to coordinate suck, swallow & breathe around 32-34 weeks gestation.



## Launch

### To a Full Breast

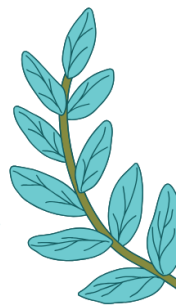
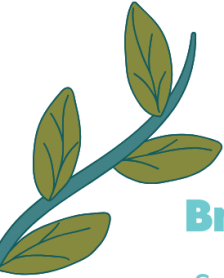
- Put infant to breast with support
- Snug close tummy to mummy. Cheek-Cheek-Chin, head supported but free to move
- Listen for swallowing and the drop of baby's jaw



## Leave

### Time to go home!

- Continue skin to skin and breastfeeding without the pressure to feed every attempt
- You will need to continue to express milk as baby learns to feed better to prevent low milk supply.



## Breast Care

- Seek help if you noticed any abnormalities such as cracks, fissures, bleeding, scabbing, blebs
- Do not soak nipples in salt water
- Do not use a needle to unroof “blebs”
- Do not use APNO (all purpose nipple ointment), antibacterial cream, or anti-fungal cream
- Do not massage the breast or use any massaging device on the breast
- Do not try to “work out a plug” with pressure or force

Seek help right away if you notice redness, swelling, experience pain, or have concerns about mastitis



Date

QRINU BIQ! Amount Pumped 

Day  
Total



# How to Keep Your Breast Pump Kit Clean



Providing breast milk is one of the best things you can do for your baby's health and development. Pumping your milk is one way to provide breast milk to your baby. Keeping the parts of your pump clean is critical, because germs can grow quickly in breast milk or breast milk residue that remains on pump parts. Following these steps can help prevent contamination and protect your baby from infection. If your baby was born prematurely or has other health concerns, your baby's health care providers may have more recommendations for pumping breast milk safely.

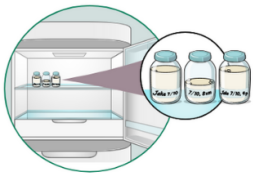


**Wash hands** with soap and water.

**Inspect and assemble** clean pump kit. If your tubing is moldy, discard and replace immediately.

**Clean** pump dials, power switch, and countertop with disinfectant wipes, especially if using a shared pump.

## AFTER EVERY USE



**Store milk safely.** Cap milk collection bottle or seal milk collection bag, label with date and time, and immediately place in a refrigerator, freezer, or cooler bag with ice packs.

**Clean pumping area,** especially if using a shared pump. Clean the dials, power switch, and countertop with disinfectant wipes.

**Take apart** breast pump tubing and separate all parts that come in contact with breast/breast milk.

**Rinse** breast pump parts that come into contact with breast/breast milk by holding under running water to remove remaining milk. Do not place parts in sink to rinse.

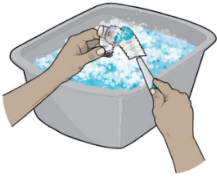
**Clean pump parts** that come into contact with breast/breast milk as soon as possible after pumping. You can clean your pump parts **in a dishwasher** or **by hand** in a wash basin used only for cleaning the pump kit and infant feeding items.

Follow the cleaning steps given on the next page.

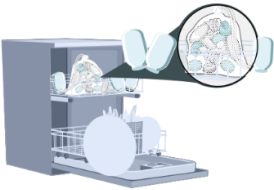


# Clean Pump Kit

CLEAN BY HAND

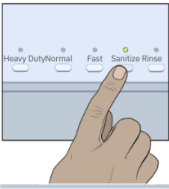


OR CLEAN IN DISHWASHER



# After Cleaning

FOR EXTRA PROTECTION, SANITIZE



STORE SAFELY



**Place pump parts in a clean wash basin** used only for infant feeding items. **Do not place pump parts directly in the sink!**

**Add soap and hot water** to basin.

**Scrub** items using a clean brush used only for infant feeding items.

**Rinse** by holding items under running water, or by submerging in fresh water in a separate basin.

**Air-dry thoroughly.** Place pump parts, wash basin, and bottle brush on a clean, unused dish towel or paper towel in an area protected from dirt and dust. Do not use a dish towel to rub or pat items dry!

**Clean wash basin and bottle brush.** Rinse them well and allow them to air-dry after each use. Wash them by hand or in a dishwasher at least every few days.

**Clean pump parts in a dishwasher,** if they are dishwasher-safe. Be sure to place small items into a closed-top basket or mesh laundry bag. Add soap and, if possible, **run the dishwasher using hot water and a heated drying cycle (or sanitizing setting).**

**Remove from dishwasher** with clean hands. If items are not completely dry, place items on a clean, unused dish towel or paper towel to air-dry thoroughly before storing. Do not use a dish towel to rub or pat items dry!

**For extra germ removal, sanitize** pump parts, wash basin, and bottle brush **at least once daily** after they have been cleaned. Items can be sanitized using steam, boiling water, or a dishwasher with a sanitize setting. Sanitizing is especially important if your baby is less than 2 months old, was born prematurely, or has a weakened immune system due to illness or medical treatment.

For detailed instructions on sanitizing your pump parts, visit [www.cdc.gov/healthywater/hygiene/healthychildcare/infantfeeding.html](http://www.cdc.gov/healthywater/hygiene/healthychildcare/infantfeeding.html)

**Store dry items safely until needed.** Ensure the clean pump parts, bottle brushes, and wash basins have air-dried thoroughly before storing. Items must be completely dry to help prevent germs and mold from growing. Store dry items in a clean, protected area.

Learn more about safe and healthy diapering and infant feeding habits at [www.cdc.gov/healthywater/hygiene/healthychildcare](http://www.cdc.gov/healthywater/hygiene/healthychildcare).





# STORAGE AND PREPARATION OF BREAST MILK

## BEFORE EXPRESSING/PUMPING MILK

**Wash** your hands well with soap and water.



**Inspect** the pump kit and tubing to make sure it is clean.

Replace moldy tubing immediately.



**Clean** pump dials and countertop.



## STORING EXPRESSED MILK



**Use** breast milk storage bags or clean food-grade containers with tight fitting lids.



**Avoid** plastics containing bisphenol A (BPA) (recycle symbol #7).

## HUMAN MILK STORAGE GUIDELINES

TYPE OF BREAST MILK	STORAGE LOCATIONS AND TEMPERATURES		
	Countertop <b>77°F (25°C) or colder</b> (room temperature)	Refrigerator <b>40°F (4°C)</b>	Freezer <b>0°F (-18°C) or colder</b>
Freshly Expressed or Pumped	Up to <b>4 Hours</b>	Up to <b>4 Days</b>	Within <b>6 months</b> is best Up to <b>12 months</b> is acceptable
Thawed, Previously Frozen	<b>1–2 Hours</b>	Up to <b>1 Day</b> (24 hours)	<b>NEVER</b> refreeze human milk after it has been thawed
Leftover from a Feeding (baby did not finish the bottle)	Use within <b>2 hours</b> after the baby is finished feeding		

## STORE

Label milk with the date it was expressed and the child's name if delivering to childcare.

Store milk in the back of the freezer or refrigerator, not the door.

Freeze milk in small amounts of **2 to 4 ounces** to avoid wasting any.



When freezing leave an inch of space at the top of the container; breast milk expands as it freezes.

Milk can be stored in an insulated cooler bag with frozen ice packs for **up to 24 hours** when you are traveling.

If you don't plan to use freshly expressed milk **within 4 days**, freeze it right away.

## THAW

Always thaw the oldest milk first. Thaw milk under lukewarm running water, in a container of lukewarm running water, or overnight in the refrigerator. Never thaw or heat milk in a microwave. Microwaving destroys nutrients and creates hot spots, which can burn a baby's mouth.

Use milk **within 24 hours** of thawing in the refrigerator (*from the time it is completely thawed, not from the time when you took it out of the freezer*).

Use thawed milk **within 2 hours** of bringing to room temperature or warming.

Never refreeze thawed milk.



## FEED

Milk can be served cold, room temperature, or warm.

To heat milk, place the sealed container into a bowl of warm water or hold under warm running water.

**Do not heat** milk directly on the stove or in the microwave.



Test the temperature before feeding it to your baby by putting a few drops on your wrist. It should feel warm, **not hot**. Swirl the milk to mix the fat, which may have separated. If your baby did not finish the bottle, leftover milk should be used **within 2 hours**.

## CLEAN

Wash disassembled pump and feeding parts in a clean basin with soap and water. **Do not wash directly** in the sink because the germs in the sink could contaminate items.

Rinse thoroughly under running water. Air-dry items on a clean dishtowel or paper towel. Using clean hands, store dry items in a clean, protected area.

For extra germ removal, sanitize feeding items daily using one of these methods:

- clean in the dishwasher using hot water and heated drying cycle (*or sanitize setting*).
- boil in water for 5 minutes (*after cleaning*).
- steam in a microwave or plug-in steam system according to the manufacturer's directions (*after cleaning*).



June 2019



Centers for Disease  
Control and Prevention  
National Center for Chronic  
Disease Prevention and  
Health Promotion

FOR MORE INFORMATION, VISIT:

<https://bit.ly/2dxVYLU>

296657-B



POSTPARTUM SUPPORT  
INTERNATIONAL



# Perinatal Mental Health Disorders

Perinatal: Anytime during pregnancy and postpartum

Depression  
(PPD)

Anxiety  
(PPA)

Panic  
Disorder

Obsessive  
Compulsive  
Disorder  
(OCD)

Postpartum  
PTSD

Bipolar  
Disorders

Perinatal  
Psychosis



## Symptoms

- Feelings of guilt, shame or hopelessness
- Feelings of anger, rage, or irritability, or scary and unwanted thoughts
- Lack of interest in the baby or difficulty bonding with the baby
- Loss of interest, joy or pleasure in things you used to enjoy
- Disturbances of sleep and appetite
- Crying and sadness, constant worry or racing thoughts
- Physical symptoms like dizziness, hot flashes, and nausea
- Possible thoughts of harming the baby or yourself



## Risk Factors

- History of depression, anxiety, or OCD
- Thyroid imbalance, diabetes, endocrine disorders
- Lack of support from family and friends
- Pregnancy or delivery complications, infertility, miscarriage or infant loss
- Premenstrual Syndrome (PMS)
- Financial stress or poverty
- Abrupt discontinuation of lactation
- History of abuse
- Unwanted or unplanned pregnancy



## Treatment Options

- Counseling
- Medication
- Support from others
- Exercise
- Adequate sleep
- Healthy diet
- Bright light therapy
- Yoga
- Relaxation techniques

### Postpartum Support International | [Postpartum.net](https://www.postpartum.net)

Call the PSI HelpLine at 1-800-944-4773 (English and Español) or  
Text/Texto "Help" to 800-944-4773 (English) or 971-203-7773 (Español).

Download **Connect by PSI** in your app store for Mental Health support and resources.



# YOU'VE GOT THIS MAMA!

[lactahub.org](https://lactahub.org)

Resource on providing  
moms' own milk in the  
NICU



## Contact Us

UMMC Lactation Clinic  
Eli Manning Clinic  
2500 North State St.  
Jackson, MS 39216

To make an appointment call:

**601-984-5480**

No referral needed

