BREASTFEEDING YOUR NEWBORN

Learning Lactation

PEDIATRICS ON DEMAND
URGENT CARE FOR KIDS

NEWBORN FEEDING AND OUTPUT

Breastmilk:

- Nurse at first signs of hunger. You cannot nurse your infant too often.
- Hunger cues:

Early Cues - "I'm hungry"

Stirring

Mouth Opening

Turning Head Seeking/rooting

MID Cues - "I'm really hungry"

Stretching

Increasing Physical Movement

Hand to Mouth

Late Cues - "Calm me, then feed me"

Crying

Agitating Body Movements

Colour turn red

Feed your newborn 8-12 times per day

- Some infants feed every 1-3 hours during the day and every 3 hours during the nighttime
- During the nighttime, however, it is important to nurse your infant on demand, or pump whenever your infant is bottle fed. This is because prolactin is secreted at its highest levels during the night.
- Prolactin is an important milk production hormone
- **Frequent and more feedings at night = more milk production**

NEWBORN FEEDING AND OUTPUT

Output:

- Breast milk stool will usually be soft, yellow, and seedy in appearance
- The "seeds" you see are undigested fat from the breast milk
- **Your newborn should have 4 or more dirty diapers a day.** Some newborns have a bowel movement with each feeding.
- Exclusively breastfeed infants by 2 weeks of life can have up to 6 stools per day.
  - It is important to describe the amount of stool your infant is passing. Is it scant? Is it large?
  - Measurements matter, as having many scant diapers can be misleading to the true amount of stool your infant is passing.
- **Your newborn should also have 5-6 wet disposable diapers a day, or 6-8 wet cloth diapers.**
  - It is also important to determine the degree of wetness. Is the diaper heavy? Is the wetness indicator blue or still mostly yellow?

How do you know if your infant is transferring enough milk?

- Adequate weight gain is measured by the amount of wet and dirty diapers within a 24-hour period.
- **If your newborn is having less than 5-6 wet and 3-4 dirty diapers a day, consult with your child's pediatrician.**
- Also consider making an appointment with the lactation nurse for a weigh/feed/weigh session to determine the amount of milk transfer in a breastfeeding session. **Call 708-996-6100 for an appointment.**

Other milk tips:

- When you are pumping and leaving milk for your infant, it is important to have 1 oz of breastmilk for each hour you are gone
  Example: *you are leaving for 4 hours; you should have 4 ounces stashed for your newborn.*
- Some infants may require less or more milk. Whichever the case, ensure your infant is gaining weight properly. **Your infant should gain at least 5-7 ounces and grow ½ to 1 inch a month.**
- Breast milk has more nutrients per ounce as opposed to formula.
- A formula fed baby may require a higher volume of milk than a breastfed infant to receive the same amount of nutrition. The distribution of breast milk varies, whereas the formula cannot.
- Formula also digests more slowly than breastmilk does in the infant gut. Therefore, they may require less frequent feedings as opposed to breastfed infants.
- **If you are formula feeding, feed your newborn 2 ounces every 2-3 hours, more if still hungry.**
- If your infant is 1 month old, feed a total of 24-27 ounces per day. Needs will increase by a few ounces each month.

THE STAGES OF LACTATION

Lactogenesis Stage I

- Occurs mid-pregnancy. It is the maturation of the mammary gland
- Leaking can occur during pregnancy as the ducts in the breast fill with small amounts of thick fluid, known as **colostrum**.
- Colostrum is available for the baby in small but adequate volumes after birth.
- The volume of colostrum will vary
  - **Normal ranges are 2 mL-20 mL per feeding within the first 3 days of life**
  - Your newborn's stomach capacity on Day 1 of life is roughly 6 mL and 12 mL on Day 2.
- Colostrum is higher in protein and lower in fat. It also contains necessary immunoglobulins which will aid in your infant's immunity.

Lactognesis Stage II

- This should occur about 30-40 hours after delivery when your milk is "*coming in.*"
- The breasts experience changes and possible early postpartum engorgement.
- Milk volumes increase and it will become thinner in consistency and whiter in color

Delays in this stage:

- **If you are experiencing a delay in this stage past postpartum Day 3, this could lead to excessive infant weight loss and possible cessation of both any and exclusive breastfeeding.**

A delay in this process has many causes including:

- First pregnancy and delivery
- Preterm delivery (especially <28 weeks gestation)
- Prolonged labor
- An instrument (forceps or vacuum) assisted delivery
- Cesarean delivery
- Retained placenta
- Hypertension
- Excessive blood loss
- Use of supplementation
- Obesity
- Maternal diabetes and insulin resistance

If you have these risks factors, it is important to:

- Begin pumping within 1 hour after delivery
- Combine pumping with hand expression to better imitate your newborn who uses suction AND compression while nursing
- Feed expressed colostrum to your newborn
- Have your infant's latch and feeding frequency assessed
- Put your baby skin-to-skin as much as possible!

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Lactogenesis Stage III:

- This is the ongoing production of milk that will continue until full weaning occurs.
- Early sensations of breast fullness can decrease over time during this phase
- Breast fullness may only be noticeable when there is a prolonged time between nursing or pumping.
    - Your breasts have *perfectly adjusted* to your infant's demand
    - However, if you are worried about your lack of breast fullness and how it relates to your supply, it is encouraged to have your child weighed by their pediatrician or lactation specialist prior to introducing supplementation.

Critical Window for Lactation:

- It is critical for milk supply that the **first two weeks postpartum** are heavily focused in lactation
- Maternal serum levels of prolactin are highest from 0-14 days after delivery. Therefore, milk should be removed frequently and adequately to build and support milk production.
- After the first two weeks, the hormone prolactin decreases dramatically, and it is very difficult to build a sufficient milk supply after this time.
- If you are struggling with lactation and are within this window of time, it is crucial you see a lactation specialist as soon as possible.

Expected milk volumes:

Day 0-2= 2- 20 mL per feeding
Day 3-7= 350 mL (5 oz) per 24 hours
Day 7- 14= 500- 1000 mL (16- 30 oz) per 24 hours

LATCHING AND POSITIONING:

Breastfeeding Positions

- Effective positioning and latching are crucial in breastfeeding newborns
- Poor positioning and latching will result in nipple damage
- Nipple damage and pain is the largest reason mothers discontinue breastfeeding

Nose to Nipple Positioning:

Nose to nipple is being demonstrated. The infant's chin and bottom lip are brushing the mother's breast. When the infant begins in the nose to nipple or sniff position, it ensures an open airway and a comfortable latch.

Once the infant opens their mouth, quickly bring the infant to the nipple. Once this infant has latched, a large part of the areola (the darker skin around the nipple) will be in the infant's mouth.

Notice the infant's nose is clear from breast tissue, the lips are flanged, and most of the areola is covered by the infant's lower lip. The mother's fingers are located behind the infant's ears, ensuring total head control. Stable head control improves jaw control, swallowing, and reduces risk for aspiration.

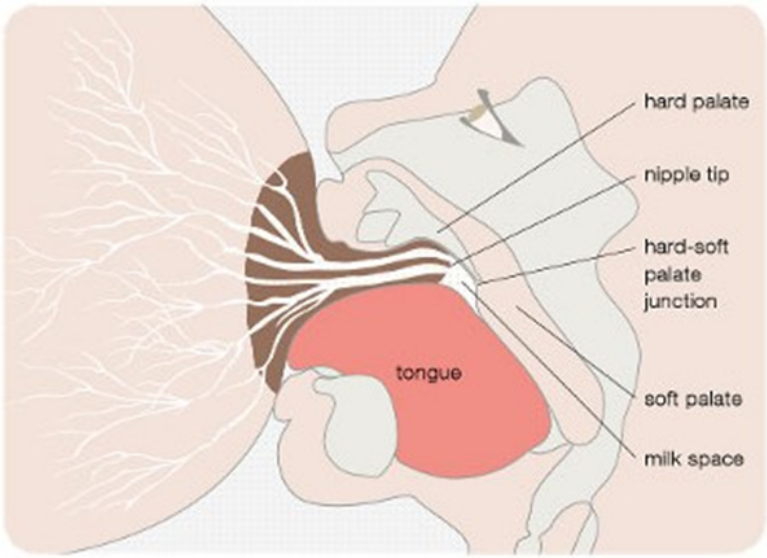
See page 8 for positioning options.

NIPPLE PAIN & SORENESS

- Most women will experience nipple pain in the early stages of breastfeeding
- Nipple sensitivity is common after delivery due to the release of oxytocin to stimulate the milk ejection response
- Just as you may have experienced nipple sensitivity in early pregnancy due to increases in the hormone prolactin, there is again another surge of this hormone after delivery
- Nipple discomfort can occur within the first 20-30 seconds following your infant's latch

The "30 second rule":

- As your nipple adjusts and stretches inside your newborns mouth, the pain should subside after the first 30 seconds.
- As demonstrated below, the tip of the nipple should be brought back towards your infant's soft palate. Once the tip of the nipple is brought back to the soft palate, pain should decrease or completely dissipate.



- If the pain persists beyond 30 seconds, you should break the seal and re-latch your infant.
  - **Consider trying a new position if you feel the infant is not reaching an effective or deep enough latch.**

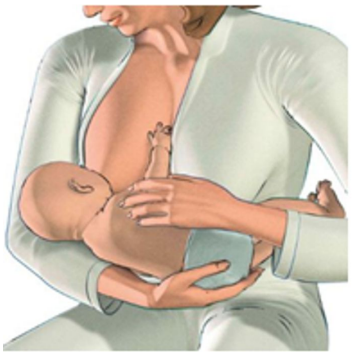
You will know the latch is deep enough when:

  - Your babies body is straight and in alignment. His/her neck, head and spine are NOT twisted. Their chest and belly are resting against your body.
  - The babies chin is touching your breast and their nose is not titled into your breast tissue.
  - Their mouth is open wide and the lower lip is covering most of the areola and not just around your nipple shaft.
  - The lips are flanged or turned out, and not retracted inward. Your infant's cheeks look rounded and not dimpled, indicating they have breast tissue in their mouth.
  - Swallows are seen and heard.
    - Your infant will begin with short and frequent sucking, then become slow and rhythmic as you have a milk letdown.

COMMON POSITIONS:

Cradle Hold:

Mother and baby are chest to chest. The infant's head is located in the mother's elbow. The mother's arm is supporting the infant's back.



Cross Cradle Hold:

As opposed to the previous position, the mothers opposite arm is supporting the infant's back. The infant's head is in it's mother hands. The index finger and thumb should be located just behind the infants ears to provide head control. The mothers other hand is used to guide or sandwich the breast to support latching.

Football Hold:

This infant is wrapped in a C position around the mother's side with it's legs and feet tucked under her arm. The mother is cupping the infant's head in her hand. The other hand is free to guide or sandwich the breast if necessary. A pillow can be placed underneath this arm to support the mother and make both her and the infant comfortable.

Side-lying Position:

The mother is laying on her side and facing the baby. The infant's mouth is in line with the nipple. The infant is also on it's side with his/her stomach facing the mothers. Body is in full alignment. A pillow can be placed behind the mother for back or neck support.

NIPPLE PAIN & SORENESS

Persistent Nipple Pain:

Pain lasting longer than 2 weeks can have many causes:

- Poor positioning and latching
- Uncoordinated infant suck
- Tongue-tie
- High or unusual shaped palate
- Flat, inverted, large or long nipples
- Pump trauma
- Nipple infection
- Plugged duct
- Allodynia, or extreme nipple sensitivity

Stages of Nipple Damage:

Stage I:
Superficial pain, skin is intact with redness, bruising and swelling
Stage II:
Superficial pain with tissue breakdown such as abrasion, shallow fissure, compression stripe, and blistering
Stage III:
Skin has broken down to lower layers of the dermis and a deep fissure is present
Stage IV:
Full erosion through the dermis

Nipple care:

If you have nipple tenderness and some of the symptoms presented as **Stage I** or **Stage II** nipple damage, it is encouraged that you perform gentle washing to the affected areas.

- Use a mild soap and running water once a day to avoid excessive drying of the nipple
- Flush the nipple with normal saline or tap water after breastfeeding and pumping
- Air dry or gently pat
- Apply expressed milk or a safe lubricant (i.e., lanolin) to affected area
- Nipple shells are a great way to provide a barrier between your nipple and your clothing.
    - Shells prevent further friction in between breastfeeding and pumping, while also allowing a lubricant to stay on the affected area.

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NEWBORN FEEDING LOG

THE GOAL FOR DAY ONE: AIM FOR 8 FEEDINGS. 1 WET AND 1 DIRTY DIAPER

DAY 1	MINUTES ON BREAST		BOTTLE FED	DIAPER CHANGE	
TIME	LEFT	RIGHT	MILK (ML)	WET	STOOL
1:00 AM					
2:00 AM					
3:00 AM					
4:00 AM					
5:00 AM					
6:00 AM					
7:00 AM					
8:00 AM					
9:00 AM					
10:00 AM					
11:00 AM					
12:00 PM					
1:00 PM					
2:00 PM					
3:00 PM					
4:00 PM					
5:00 PM					
6:00 PM					
7:00 PM					
8:00 PM					
9:00 PM					
10:00 PM					
11:00 PM					
12:00 AM					

THE GOAL FOR DAY TWO: 8 OR MORE FEEDINGS. 2 WET AND 2 DIRTY DIAPERS

DAY 2	MINUTES ON BREAST		BOTTLE FED	DIAPER CHANGE	
TIME	LEFT	RIGHT	MILK (ML)	WET	STOOL
1:00 AM					
2:00 AM					
3:00 AM					
4:00 AM					
5:00 AM					
6:00 AM					
7:00 AM					
8:00 AM					
9:00 AM					
10:00 AM					
11:00 AM					
12:00 PM					
1:00 PM					
2:00 PM					
3:00 PM					
4:00 PM					
5:00 PM					
6:00 PM					
7:00 PM					
8:00 PM					
9:00 PM					
10:00 PM					
11:00 PM					
12:00 AM					

THE GOAL FOR DAY THREE: 8-12 FEEDINGS. 6 TO 8 WET & DIRTY DIAPERS TOTAL

DAY 3	MINUTES ON BREAST		BOTTLE FED	DIAPER CHANGE	
TIME	LEFT	RIGHT	MILK (ML)	WET	STOOL
1:00 AM					
2:00 AM					
3:00 AM					
4:00 AM					
5:00 AM					
6:00 AM					
7:00 AM					
8:00 AM					
9:00 AM					
10:00 AM					
11:00 AM					
12:00 PM					
1:00 PM					
2:00 PM					
3:00 PM					
4:00 PM					
5:00 PM					
6:00 PM					
7:00 PM					
8:00 PM					
9:00 PM					
10:00 PM					
11:00 PM					
12:00 AM					

THE GOAL FOR DAY FOUR: 8-12 FEEDINGS, 8 OR MORE WET & DIRTY DIAPERS TOTAL

DAY 4	MINUTES ON BREAST		BOTTLE FED	DIAPER CHANGE	
TIME	LEFT	RIGHT	MILK (ML)	WET	STOOL
1:00 AM					
2:00 AM					
3:00 AM					
4:00 AM					
5:00 AM					
6:00 AM					
7:00 AM					
8:00 AM					
9:00 AM					
10:00 AM					
11:00 AM					
12:00 PM					
1:00 PM					
2:00 PM					
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4:00 PM					
5:00 PM					
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10:00 PM					
11:00 PM					
12:00 AM					

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THE GOAL FOR DAY FIVE: 8-12 FEEDINGS, 8 OR MORE WET & DIRTY DIAPERS TOTAL

DAY 5	MINUTES ON BREAST		BOTTLE FED	DIAPER CHANGE	
TIME	LEFT	RIGHT	MILK (ML)	WET	STOOL
1:00 AM					
2:00 AM					
3:00 AM					
4:00 AM					
5:00 AM					
6:00 AM					
7:00 AM					
8:00 AM					
9:00 AM					
10:00 AM					
11:00 AM					
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4:00 PM					
5:00 PM					
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8:00 PM					
9:00 PM					
10:00 PM					
11:00 PM					
12:00 AM					

THE GOAL FOR DAY SIX: 8-12 FEEDINGS, 8 OR MORE WET & DIRTY DIAPERS TOTAL

DAY 6	MINUTES ON BREAST		BOTTLE FED	DIAPER CHANGE	
TIME	LEFT	RIGHT	MILK (ML)	WET	STOOL
1:00 AM					
2:00 AM					
3:00 AM					
4:00 AM					
5:00 AM					
6:00 AM					
7:00 AM					
8:00 AM					
9:00 AM					
10:00 AM					
11:00 AM					
12:00 PM					
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10:00 PM					
11:00 PM					
12:00 AM					

THE GOAL FOR DAY SEVEN: 8-12 FEEDINGS, 8 OR MORE WET & DIRTY DIAPERS TOTAL

DAY 7	MINUTES ON BREAST		BOTTLE FED	DIAPER CHANGE	
TIME	LEFT	RIGHT	MILK (ML)	WET	STOOL
1:00 AM					
2:00 AM					
3:00 AM					
4:00 AM					
5:00 AM					
6:00 AM					
7:00 AM					
8:00 AM					
9:00 AM					
10:00 AM					
11:00 AM					
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12:00 AM					

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