What cues will my baby demonstrate to indicate hunger?

- thrusting tongue
- licking lips
- putting hands to the mouth

How often should I expect to feed my baby?

- Birth to 24 hours of life: at least 4-6 feedings (1 urine & 1 stool).
- 24 hours – 48 hours of life: at least 6-8 feedings (2 urines & 2 stools).
- 48 hours – 3 days of life: at least 8-12 feedings per day (3 urines & 3 stools).

What are the signs of a good feeding at the breast?

- Your baby's suckle should be slow and rhythmic with deep jaw movements
- For the first few days, it can be difficult to hear your baby swallow the thick colostrum, but your baby should look satisfied after a feeding.
- As your milk starts to come in (3-4 days after delivery), you should begin to hear your baby swallow regularly while breastfeeding.
- Your baby's diapers should increase with 3 or more soiled diapers and 6 or more heavy, wet diapers per day.
- Your baby's stool should also change from a sticky, tar-like, black color to a seedy, yellow color.
- Many babies lose up to 7% of their birth weight during the first 3 days of life. As your milk comes in, your baby should start gaining weight.
Do I need to wake my baby for feedings?

Most newborns have a very effective feeding at the breast immediately after delivery and then sleep for several hours. As they begin to wake up again, it is normal for a breastfed baby to eat frequently. After the first 24 hours, it is expected that your baby will need to eat at least every 2-3 hours.

- If your baby is not awake 3 hours after the “start” of the previous feeding, wake your baby by un-swaddling them, changing the diaper, and removing some clothing if needed.
- Spend about 15 minutes attempting to latch your baby at the breast. When your baby is latched well, you should feel deep tugs at your breast and hear some swallowing. Swallowing sounds like a soft “sigh.”

Does my baby need to be supplemented with additional breast milk or formula?

Your baby may need supplements of expressed breast milk and/or formula if they demonstrate any of the following signs and symptoms:

- Your baby is not able to latch at the breast for feedings.
- Your baby is not able to demonstrate intermittent sucking with audible swallows for at least 10-20 minutes at the breast during feedings.
- Your baby has lost more weight than expected for their day of life.
- Your baby is not making enough wet or dirty diapers.
- Your baby was born before 38 weeks gestation
- Your baby weighed less than 2700 grams (6 pounds) at birth
- Your baby shows signs of jaundice with elevated bilirubin levels
What is the best method for my baby to receive their supplemental feedings?

If your baby requires any supplement greater than 5ml due to difficulty breastfeeding, we recommend the **paced bottle technique**.

![Image: J Hum Lact 18(1), 2002](image)

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When offering your baby any supplemental feeding, use the following guidelines to determine the recommended volume:

<table>
<thead>
<tr>
<th>Hours After Birth:</th>
<th>0-24 hours</th>
<th>25-48 hours</th>
<th>49-72 hours</th>
<th>73-96 hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volume:</td>
<td>2-10 ml.</td>
<td>5-15 ml.</td>
<td>15-30 ml.</td>
<td>30-60 ml. Increase as needed</td>
</tr>
<tr>
<td>Frequency:</td>
<td>Every 2-3 hours At least 4-6 times a day</td>
<td>Every 2-3 hrs. At least 8 times a day</td>
<td>Every 2-3 hrs. At least 8 times a day</td>
<td>Every 2-3 hours At least 8 times a day</td>
</tr>
</tbody>
</table>

If you are not able to express the recommended amount of breast milk needed for supplementation, then use infant formula. Offer the available breast milk first and then offer additional formula as needed to meet the volume recommendations.
If my baby requires supplemental feedings, do I need to use a breast pump?

- **The first 2 weeks postpartum are a critical time in lactation.** As a result of hormonal changes, milk production begins to be plentiful around 72-96 hours (about 3-4 days) after delivery. At this time, milk production continues to increase if milk is removed from your breasts frequently.

- If your baby is having breastfeeding difficulties and is not able to empty your breasts with feedings at least every 2-3 hours, then it is vital that you use your breast pump for **15-20 minutes every 2-3 hours** in order to establish and maintain enough breast milk to feed your infant.

- If your baby is not feeding well at the breast and you are mostly emptying your breasts by using a breast pump, you should expect to express the following milk volumes:

<table>
<thead>
<tr>
<th>Day</th>
<th>Milk Volume</th>
</tr>
</thead>
</table>
  | 0-2  | about 30 ml. (1 oz.) **per day**  
  |      | (2-10 ml. -or- 1-2 teaspoons **per feeding**) |
  | 3-7  | 350 ml. (11.5 oz) or more **per day**  
  |      | (30-45 ml. -or- 1-2 ounces **per feeding**) |
  | 7-14 | 500 - 1000 ml. (16.5 - 33 oz.) or more **per day**  
  |      | (50-150 ml. -or- 2-4 ounces **per feeding**) |

- Document your baby's feedings and your expressed milk volumes in a feeding diary (we have attached one for your convenience) or a phone app if desired (there are several available).

- See your baby's primary care provider 1-2 days after discharge for continued supplementation advice.
# Feeding Diary

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Feeding time at breast</th>
<th>Supplement Amount</th>
<th>Breast Pumping Amount</th>
<th>Wet Diaper</th>
<th>Dirty Diaper</th>
</tr>
</thead>
<tbody>
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</table>
Engorgement

What is engorgement?
Engorgement is a filling of the breasts with increased amounts of milk, blood, and lymph fluid. Normal engorgement typically begins 3 to 5 days after delivery and is relieved within 24 to 48 hours.

How will my breasts feel?
Some mothers will have only slight fullness, while others may find their breasts become larger and heavier with increased tenderness or throbbing. The breasts can become hard with tightly stretched skin that may appear shiny or feel warm. Engorgement can also extend up into the armpit and out to the end of the nipple. Some mothers develop a low grade fever.

What are some things I can do to help relieve engorgement?

Before feedings:
- Gently massage the breast from the chest toward the nipple
- Try to express a small amount of milk to soften the areola, (either with hand expression or with a breast pump on a low setting)
- Apply a warm, moist compress for no more than 3 to 5 minutes to help your milk to “let-down” just before a feeding
- Stand in a warm shower with the spray directed at your back to help relieve tension and improve milk flow

During feedings:
- Ask your nurse or lactation consultant to verify that your baby has an effective latch before you are discharged from the hospital
- Gently compress or massage the breast during feedings
• Breastfeed your baby for as long as possible after “let down” has occurred to make sure they remove as much milk as they can.
• Let your baby breastfeed for as long as possible on the first breast before offering the second breast. The first breast should be noticeably softer after a feeding.

In between feedings:
• Breastfeed your baby frequently. It is normal for a newborn baby to breastfeed as often as every hour, but don’t go longer than 3 hours between feedings.
• Use cold packs on the breasts for 20 minutes after feedings with a layer of fabric between the skin and the cold pack
• Green cabbage leaves can be used instead of cold packs. Wash the leaves of cabbage and apply to the breast for 20 minutes, no more than 3 times per day.
• Try wearing a well-fitting, supportive bra. Avoid tight fitting bras which can lead to plugged ducts and mastitis (breast infection).
• Avoid using heat for comfort as heat can increase swelling and inflammation which can make it more difficult for milk to flow.

Can I take any medication for the engorgement pain?
Acetaminophen or Ibuprofen are compatible with breastfeeding and can be taken as directed for discomfort.

Should I use a breast pump to relieve engorgement?
During the normal period of engorgement that occurs 3-5 days after delivery, your body will determine how much milk is necessary to feed your baby. As milk is removed, your body will respond by producing more milk. Likewise, unused milk that accumulates in the breast will cause the body to slow milk production. This is described as “supply and demand.”
• If your baby is latching well and feeding frequently at the breast, additional pumping should not be necessary.
• You may be tempted to use your breast pump between feedings to relieve some of the pressure of engorgement, but you should limit these pumping sessions to only a couple minutes.
• Your goal should be to pump to comfort, but not empty the breasts.
• If your infant is not latching well, you should continue pumping for **15-20 minutes every 2-3 hours** until breastfeeding is well established.

**Will my breasts get engorged again?**

Engorgement can occur at any time during the breastfeeding relationship if the breasts are not emptied fully and frequently. Some of the risk factors for engorgement include:

- Baby sleeping longer than usual and missing a feeding
- Short or restricted feedings
- Baby taking more feedings away from the breast, with supplements or when starting solids

**When should I call my health care provider?**

• If your engorgement is not relieved within 48 hours, contact a lactation consultant for help.
  - Please call the Lactation Help Line at **(844) 200-8894**. You will be asked to leave a message and a lactation consultant will return your call within 24 hours.
• If you notice signs of infection, including fever, redness or swelling, contact your health care provider.
  - If you delivered your baby within the past 6 weeks, you can call Triage at (734) 764-8134.
Breastfeeding Your Baby: Day 3 and Beyond

How to tell if breastfeeding is going well:

- Your baby's behavior should change as they feed and become satisfied.
  - At the beginning of the feeding your baby's fists may be tightly clenched and sucking may be rapid.
  - As the feeding progresses your baby should begin to relax and the suck pattern will start to slow.
- Your baby should be able to latch on without difficulty.
- Your baby should demonstrate slow, rhythmic sucking for 10-30 minutes.
- Once your milk is in, you should hear frequent swallowing during feedings.
- Once your milk is in, your breasts should feel softer after feedings.
- Your nipples may feel tender, but should not be sore, cracked or bleeding.

After your “milk comes in” 3-5 days after birth expect the following:

- Feedings: 8-12 feedings or more in 24 hours
- Stools: 3 or more stools a day
- Urine: 3 or more wet diapers a day (6-8 wet diapers a day by day 7)

If you are noticing any of the following, talk to a lactation consultant:

- Your nipples are sore, cracked or bleeding.
- Once your milk is in, your breasts do not feel softer after feedings.
- Your milk is not in 5 days after birth

If you are noticing any of the following, talk to your baby’s health care provider immediately:

- Your baby’s mouth is dry or the soft spot on top of their head is sunken.
- Your baby falls asleep at the breast shortly after starting to breastfeed.
- Your baby sleeps all the time or cries all the time.
- After your milk is in, your baby’s urine is orange or brick colored.
Breast Milk Storage Guidelines

Many mothers find it convenient or even necessary to collect their breast milk and store it to be used at a later time. This is often the case for mothers who are returning to work or school or for mothers who are separated from their infants.

How should I collect the milk?

- Wash your hands before expressing or handling breast milk.
- Use new, clean collection bottles for each pumping session.
- While your baby is hospitalized, you should use the small (80ml) milk storage bottles provided by the hospital.
- Screw the bottles directly onto the pump kit.
- Keep the inside of the bottle cap clean while pumping and screw on tightly when finished.

How should I store the milk?

- Store your expressed breast milk in clean containers.
- If your baby is hospitalized, use the small (80ml) screw cap bottles provided by the hospital. These bottles connect directly to the pump kit so milk can be pumped and stored into the same bottles.
- If you are storing milk at home, you can use hard plastic cups with tight caps or heavy-duty bags designed for breast milk collection. Pour the expressed milk from the bottle into the storage container.
- Avoid using ordinary plastic storage bags or formula bottle bags, as these can easily leak or spill.
- Clearly label the milk with the date it was expressed, and use the oldest milk first.
- If delivering breast milk to a child care provider, clearly label the container with your child’s name and date.
If delivering breast milk to the hospital, clearly label each bottle with your **baby’s name, registration number, date and time of pumping.** Your baby’s nurse can provide you with printed labels as needed.

**Can I add freshly expressed breast milk to previously cooled or frozen breast milk?**

Freshly expressed breast milk should be chilled completely in the refrigerator before adding to previously cooled or frozen milk.

**How do I thaw frozen breast milk?**

- You can gradually thaw frozen breast milk by transferring it to the refrigerator. Frozen breast milk can also be thawed by placing the bottle in a container of warm water.
- Once completely thawed, breast milk should be used within 24 hours. Do not save milk from a used bottle for another feeding.
- Avoid using a microwave oven to thaw or heat bottles of breast milk
- Microwave ovens do not heat liquids evenly. Uneven heating could easily scald a baby or damage the milk
- **Do not re-freeze breast milk once it has been thawed.**

**How do I prepare thawed breast milk for feeding?**

- Place the container of thawed breast milk into a cup of warm water.
- Breast milk warmed to room temperature should be used within 1 hour.
- Swirl bottle gently before feeding your baby.
## Storage Time for Fresh Breast Milk for Use with Healthy Full Term Infants

<table>
<thead>
<tr>
<th>Location</th>
<th>Temperature</th>
<th>Duration</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Countertop, table</td>
<td>Room temperature (up to 77°F or 25°C)</td>
<td>6–8 hours</td>
<td>Containers should be covered and kept as cool as possible; covering the container with a cool towel may keep milk cooler.</td>
</tr>
<tr>
<td>Insulated cooler bag</td>
<td>5-39°F or -15-4°C</td>
<td>24 hours</td>
<td>Keep ice packs in contact with milk containers at all times, limit opening cooler bag.</td>
</tr>
<tr>
<td>Refrigerator</td>
<td>39°F or 4°C</td>
<td>5 days</td>
<td>Store milk in the back of the main body of the refrigerator.</td>
</tr>
</tbody>
</table>

### Freezer

<table>
<thead>
<tr>
<th>Location</th>
<th>Temperature</th>
<th>Duration</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freezer compartment of a refrigerator</td>
<td>5°F or -15°C</td>
<td>2 weeks</td>
<td>Store milk toward the back of the freezer, where temperature is most constant.</td>
</tr>
<tr>
<td>Freezer compartment of refrigerator with separate doors</td>
<td>0°F or -18°C</td>
<td>3–6 months</td>
<td>Milk stored for longer durations in the ranges listed is safe, but some of the fat in the milk can undergo changes that may lower the quality or change the taste of the milk.</td>
</tr>
<tr>
<td>Chest or upright deep freezer</td>
<td>-4°F or -20°C</td>
<td>6–12 months</td>
<td></td>
</tr>
</tbody>
</table>

Resources for Breastfeeding Mothers

Michigan Medicine Breastfeeding Resources:

- **C.S. Mott Children’s Hospital:** [http://www.mottchildren.org/conditions-treatments/breastfeeding](http://www.mottchildren.org/conditions-treatments/breastfeeding)

- **Lactation Department Help Line:**
  Phone: (844) 200 – 8894
  For general breastfeeding questions, please leave a message and a Lactation Consultant will return your call within 24 hours.

- **Outpatient Breastfeeding Clinics:**
  Offering comprehensive breastfeeding support through outpatient consultation appointments with a Lactation Consultant.

  **Brighton Health Center:**
  Phone: (810) 227-9510
  Available **Monday** by appointment only.

  **Canton Health Center:**
  Phone: (734) 844-5400
  Available **Tuesday** by appointment only.

  **Briarwood Center for Women, Children and Young Adults:**
  Phone: (734) 232 – 2600
  Available **Wednesday** by appointment only.

  **Northville Health Center:**
  Phone: (248) 305-4400
  Available **Thursday** by appointment only.

  **West Ann Arbor Health Center:**
  Phone: (734) 998 – 7380
  Available **Friday** by appointment only.
Community Breastfeeding Resources:

- **La Leche League International**: free mother-to-mother support meetings for pregnant and breastfeeding mothers. La Leche League leaders are available 7 days a week (9am – 9pm) to answer questions by phone.
  
  Website: [http://www.llli.org](http://www.llli.org)
  
  **Ann Arbor**: (442) 229-0327 [http://www.lllaa.org/home](http://www.lllaa.org/home)
  **Brighton**: (248) 802-0447 [http://www.lllbrighton.weebly.com](http://www.lllbrighton.weebly.com)
  **Referrals to local groups**: (800) 525-3243
  **Help line**: (877) 452-5324

- **Breastfeeding Center of Ann Arbor**:
  
  Phone: (734) 975-6534
  
  Website: [http://bfcaa.com/](http://bfcaa.com/)

Evidence Based Breastfeeding Resources:

- Women's health: [http://www.womenshealth.gov/breastfeeding](http://www.womenshealth.gov/breastfeeding)

Video links and general breastfeeding information:

- Dr. Jack Newman – [www.breastfeedinginc.ca](http://www.breastfeedinginc.ca)

Video links on hand expression of breast milk:

- Dr. Jane Morton-

General Breastfeeding Information Books:

• **Breastfeeding Made Simple: Seven natural Laws for Nursing Mothers** Nancy Mohrbacher, IBCLC, and Kathleen Kendall-Tackett, PhD., IBCLC  
  Website: [http://www.breastfeedingmadesimple.com](http://www.breastfeedingmadesimple.com)

**Working and Breastfeeding Books:**


**Increasing Milk Supply Information:**

*The Breastfeeding Mother’s Guide to Making More Milk* Lisa Marasco and Diana West  
  Website: [http://www.lowmilksupply.org](http://www.lowmilksupply.org)

**Medications and breastfeeding**

Infant Risk Center provides counseling on medications and substance use in pregnancy and breastfeeding.  
  Website: [http://www.infantrisk.com](http://www.infantrisk.com)

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Reviewers: Kelly McCarley, BSN, RN, IBCLC

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