



Your Baby & the NICU
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A Little Early

Nurturing Your Late Preterm Infant

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Your baby arrived a little sooner than expected. Babies born 3-6 weeks early (between 34 and 36 full weeks of gestation) are considered late preterm infants. Because your baby missed those last few weeks of growth and maturation in the womb, extra precautions in caring for your newborn will help reduce the risk of health problems. With special care at the hospital and at home, your baby will grow and thrive. Our nursing staff will instruct you on

- ❖ caring for your baby at home,
- ❖ responding to your baby's cues and needs, and
- ❖ knowing when to call your baby's healthcare provider.

Each late preterm infant is unique. In addition to this booklet, you may also receive a personalized care plan for your newborn. Make sure to follow that plan carefully.

Taking Care of Yourself

Being aware of how you feel and taking good care of yourself are important to you, your baby, and your family. Parents of a late preterm infant are at a greater risk of postpartum depression or Post-Traumatic Stress Syndrome than parents of a full-term infant. Make sure to set aside time for yourself every week. Reducing your stress will be good for you and for your family. Try these self-care tips.

- ❖ Be patient with yourself. You may need a few days or even weeks before you feel at ease caring for your baby at home.
- ❖ Ask a family member or close friend to help by cooking a meal, taking care of household chores, or running a few errands.
- ❖ Get plenty of rest and give your body time to heal.

If you or your partner feels more depressed or more anxious than normal, call your healthcare provider right away.

Baby's First Doctor Visit

Make an appointment right away to have your baby seen by a doctor 24-48 hours after discharge from the hospital. Call your baby's healthcare provider or the hospital immediately if you have any questions or concerns about your baby's health.

Infants communicate their needs through behavioral cues (signs or signals). As you spend time together, you will become an expert in understanding how your baby signals a need for food, rest, hygiene, play, or comfort. In the early weeks, a late preterm infant may be sleepier than a full-term infant would be. Their behavior cues may be slight in the first few weeks, but will become more obvious over time. Take advantage of times when your baby is alert to interact, feed, and bond. Babies also display signs that they have had enough and need a break. Take your baby to a quiet place for relaxation and rest. Watch for cues that show when your baby is ready to interact again.

Recognizing and responding quickly to your baby's needs and knowing when to call a healthcare provider will help prevent serious problems. Learning your baby's special language will also help you enjoy your baby more fully.

Signs Baby Is Ready to Interact

- ❖ appearing relaxed
- ❖ flexing arms or legs smoothly
- ❖ looking alert, with bright eyes
- ❖ turning eyes or head toward you or toward sound
- ❖ breathing normally
- ❖ smiling
- ❖ moving hands toward mouth
- ❖ feeding



Signs Baby Is Ready for a Break

- ❖ becoming pale or red
- ❖ arching body
- ❖ yawning or falling asleep
- ❖ turning eyes or head away
- ❖ sneezing or hiccuping
- ❖ breathing in an irregular rhythm
- ❖ frowning or crying
- ❖ spitting up
- ❖ gagging



A late preterm infant may face feeding challenges that can affect their health and well-being. These difficulties can also affect the breastfeeding mother's ability to establish and maintain her milk supply. Feeding challenges include

- ❖ sleepiness;
- ❖ lack of energy;
- ❖ difficulty latching or staying latched onto the breast;
- ❖ weak sucking and swallowing;
- ❖ poor coordination of sucking, swallowing, and breathing;
- ❖ being unable to intake much milk at a feeding;
- ❖ lack of interest in feeding.

Make sure your baby feeds every 2-3 hours or more often if baby wants (on-demand feeding). Feeding is most successful when the infant is quiet, actively alert, or awakening from sleep. It is important to position and support your baby's head properly when feeding. Hold the baby's head and body at your breast level. Support the head close to your breast so baby does not have to reach for the nipple. If your baby has trouble latching, call a lactation consultant right away.



Effective Nursing

To keep baby suckling, massage your breast to increase the flow of milk to the nipple. Late preterm infants may have problems coordinating breathing, sucking, and swallowing. A coordinated pattern will develop as the baby matures. Some babies may mimic swallowing, so watch for signs that your baby is swallowing properly.

Signs Baby Is Swallowing

- ❖ seeing baby's jaw drop and hold for a second
- ❖ hearing a "ca" sound
- ❖ feeling a drawing action and seeing the areola move toward baby
- ❖ feeling a swallow with a finger placed on baby's throat

6 **Feeding Cues**

Late preterm infants are sleepier and have less interest in feeding than full-term infants. Your baby needs to feed 8-12 times within each 24-hour period until he or she is nursing well and your milk supply is established. Encourage a sleepy baby by waking to feed every 2-3 hours. To wake your baby,

- ❖ hold baby skin-to-skin;
- ❖ rock baby from side to side;
- ❖ talk to baby in a soft voice;
- ❖ gently massage baby's back, arms, or legs.

At first there may not be clear signs that your baby is ready to be fed. But sooner or later, baby will show one or more hunger cues.



Hunger Cues

- ❖ rapid eye movement under eyelids
- ❖ sucking movements
- ❖ hand-to-mouth movements
- ❖ sucking on fingers or hand
- ❖ rooting motions
- ❖ making sounds
- ❖ alert and active behaviors
- ❖ body movements



Satiety (Fullness) Cues

- ❖ stopping sucking
- ❖ relaxing body and limbs
- ❖ falling off nipple
- ❖ thrusting tongue out
- ❖ becoming drowsy or falling asleep
- ❖ biting nipple



In the early weeks, breastfeeding is work for an infant. Your baby is learning to suck, swallow, and breathe in rhythm (internal demands), while also reacting to noise, light, touch, taste, and temperature (external stimuli). A baby who is not coping well may show signs of feeding stress, which can indicate a problem. Call your lactation consultant right away if your baby shows these behaviors.

Feeding Stress Cues

- ❖ having problems latching
- ❖ pulling away from nipple
- ❖ swiping at breast or bottle
- ❖ fluttering eyes
- ❖ gagging, choking, or coughing
- ❖ pushing bottle away

Dehydration

Late preterm infants are at risk for slow weight gain and dehydration (loss of body fluids). It is important to follow the feeding plan given at discharge, and to feed your baby 8-12 times within each 24-hour period during the first month.

With frequent feeding and adequate intake of milk, your baby

- ❖ has a lower risk of jaundice
- ❖ maintains normal blood sugar levels
- ❖ builds up an energy reserve
- ❖ is well hydrated
- ❖ gains weight

Signs of Dehydration

- ❖ low urine output (fewer than 6 wet diapers per 24-hour period by end of first week)
- ❖ dry skin, tongue, or mouth
- ❖ pale or cool skin
- ❖ increased irritability
- ❖ gently pinched skin does not return quickly to normal shape
- ❖ fatigue

Call your baby's healthcare provider right away if baby shows any signs of dehydration.

8 ***Expressing and Supplemental Feeding***

During the first few weeks of breastfeeding, you need to develop a good supply of breast milk. Your baby's sucking alone may not be strong enough to stimulate and empty your breasts. After each feeding, use a breast pump to completely empty them. You may not get much milk when you first begin pumping. However, the stimulation will help your body produce milk faster. Pumping 6-8 times within each 24-hour period will ensure a plentiful milk supply and prevent engorgement.



Expressed colostrum or breastmilk can be used for supplementing at your baby's next feeding, and it can be refrigerated or frozen for later use.

Supplementing

Until your baby learns to coordinate sucking and swallowing well at the breast, you may need to supplement each feeding. Breast milk is the ideal supplement because it provides the perfect nutrients to give your baby a healthy start. Options for supplementing include your expressed breast milk, donor breast milk, and formula. Formula supplements should only be used if medically necessary and in the amounts recommended. Be sure to follow the feeding plan you have been given by your baby's healthcare provider or your lactation consultant.

There are several ways to provide supplemental feedings, including by cup, syringe, bottle, and a supplemental nursing system. Your lactation consultant will help determine which method is right for you and your baby.

In the first few weeks, feeding your baby may be more work than you imagined. Have patience and set realistic expectations. It is important that you are comfortable feeding your baby on your own before you both go home.

Nipple Shields

The use of a thin, silicone nipple shield may be recommended if your baby has difficulty latching or staying latched onto the breast. Use a nipple shield only under the guidance of a lactation consultant.

Low Blood Sugar

Hypoglycemia (hye-po-gly-CEEM-e-ah) is a medical problem that occurs when the blood sugar level is too low. Although this problem seldom happens, you should be aware of the warning signs in an infant.

Signs of Low Blood Sugar

- ❖ poor feeding
- ❖ low body temperature, called hypothermia (hye-po-THERM-e-ah)
- ❖ unusual crying or irritability
- ❖ tremors, jitteriness (nervous movements), or seizures
- ❖ lack of response to stimuli
- ❖ trouble breathing

To Keep Your Baby's Blood Sugar Levels Normal

- ❖ Feed your baby every 2-3 hours around the clock if breastfeeding.
- ❖ Feed your baby every 3-4 hours around the clock if formula feeding.

Feeding your baby frequently helps establish a successful feeding schedule to ensure your baby's blood sugar levels stay normal.

Stool and Urine Output

Keep a daily feeding record. Include how long your baby fed at each session, and the number of wet and soiled diapers. Knowing the daily stool and urine output will help you determine whether your baby is eating properly.

Signs Baby Is Eating Properly

- ❖ urine that is odorless and light yellow
- ❖ 6-8 wet diapers per 24-hour period by end of first week
- ❖ 3-6 stools per 24-hour period by end of first week

Call your baby's healthcare provider or the hospital if baby has fewer than 6 wet diapers or fewer than 3 soiled diapers per day.

Compared to full-term infants, late preterm infants are twice as likely to develop jaundice. Jaundice may peak 5-7 days after birth. The most noticeable symptom of jaundice is yellowing of the skin and the whites of the eyes. The yellowing typically starts in the face and then progresses to the eyes, chest, abdomen, arms, and legs. Treating jaundice early is essential to prevent severe damage to the nervous system.

Reduce Your Baby's Risk of Jaundice

- ❖ Feed your baby frequently (at least 8-12 times per 24-hour period).
- ❖ Call your baby's healthcare provider or your lactation consultant if you suspect baby is not feeding well.
- ❖ Keep all scheduled follow-up exams, starting with the first one within 24-48 hours after discharge from the hospital.

Examine your baby's skin and eyes in true daylight, as other lighting may not reveal the yellowing. Call your baby's healthcare provider right away if you notice any signs of jaundice.

Symptoms of Jaundice

- ❖ yellowing of the whites of the eyes
- ❖ yellowing on tummy, arms, legs, or bottoms of feet
- ❖ problems with feeding
- ❖ extreme sleepiness or difficulty waking
- ❖ acting irritable
- ❖ appearing sick
- ❖ increased yellowing after leaving the hospital
- ❖ yellowing that lasts more than 3 weeks



Late preterm infants do not have as much body fat as full-term infants, so they may have trouble maintaining their body temperature. To keep your baby warm and comfortable,

- ❖ set the room temperature comfortable for a lightly clothed adult, typically 68°F-74°F (20°C-23°C) in winter and 73°F-78°F (23°C-26°C) in summer;
- ❖ dress baby in one more layer of clothing than you feel comfortable in;
- ❖ add a layer of clothing if baby's skin feels cool.

Don't let your baby get too hot. An infant who is overheated may feel damp or sweaty or have rosy cheeks. If you think your baby is too warm, remove a layer of clothing.

Skin-to-Skin Hold

Skin-to-skin contact is beneficial for temperature regulation, breastfeeding, calming, and more. Relax in a comfortable chair with your shirt open or removed. Lay baby belly-down on your chest in only a diaper, with baby's face turned to either side. Place a blanket over baby, taking care not to cover the face.

To keep your baby's body temperature within the normal range during bathing,

- ❖ set the room temperature between 79°F-81°F (26°C-27°C);
- ❖ keep the bath water at 100°F (38.8°C);
- ❖ close the rooms doors and windows;
- ❖ cover baby with a large towel, exposing only one part of the body at a time.



Call Your Baby's Healthcare Provider If Baby

- ❖ has an axillary (armpit) temperature below 97.6°F (36.4°C) or greater than 99.3°F (37.4°C)
- ❖ is cool to the touch
- ❖ is feeding poorly
- ❖ has trouble breathing
- ❖ looks pale or flushed (red) or does not look well

The lungs of a late preterm infant are not fully mature, so the risk of respiratory illness is higher. Become familiar with your baby's normal breathing patterns and sounds so you can detect any breathing issues.

To check your baby's breathing rate, sit in a comfortable area where you can both relax. Count the number of times the baby's chest rises in 30 seconds. Multiply that number by 2 to get the respiratory rate per minute. An upset baby may have a higher-than-normal respiratory rate.

Secondhand Smoke

Secondhand smoke is very harmful to newborns. Make sure that no one smokes inside the home or around your baby. If you smoke, always wash your hands and change your shirt before holding or touching your baby. Also avoid exposing your baby to wood stoves and fires.

Reduce the Risk of Respiratory Illness

- ❖ Wash your hands before touching or holding baby.
- ❖ Limit baby's contact with pre-school-aged children during flu season.
- ❖ Do not allow anyone who is sick to be near baby.
- ❖ Keep your baby at home during flu season as much as possible.



Signs of Breathing Stress

- ❖ fast breathing
- ❖ bluish color on face and chest
- ❖ breathing that seems difficult
- ❖ nasal flaring (nostrils widen during breathing)
- ❖ grunting

If you think your baby is having trouble breathing, call 911 right away.



To ensure baby can ride home safely in your car seat, a nurse will monitor your baby's breathing while the infant is sitting in the seat. If baby has difficulty breathing, the nurse will give you special instructions for transport.

The car seat should fit your baby. Car seats for small infants should have

- ❖ a crotch-strap distance of 5.5" or less from the strap slot to the seat back, and
- ❖ shoulder straps with a slot that is 10" from the base of the seat. The strap slot should be at or below the infant's shoulder level.

Even if a late preterm infant passes the car-seat breathing test, most health-care providers recommend that an adult sit in the back seat next to the baby during travel. Follow these additional safety guidelines:

- ❖ If your baby was discharged with a portable medical device, make sure it is properly secured in the vehicle.
- ❖ Limit travel as much as possible. When travel cannot be avoided, aim for less than 30 minutes at a time in the car seat. During travel, stop and adjust the baby in the car seat if necessary.
- ❖ Make sure baby's head is well supported so the neck does not bend and restrict airflow.
- ❖ Avoid using the car seat when not traveling. Also avoid using infant swings, other infant seats, backpacks, slings, and infant carriers until your baby's healthcare provider approves their use, as they may increase the risk of breathing difficulty.

When placing your baby in a car seat, make sure baby's bottom is up against the back of the car seat. A small rolled diaper or blanket can be placed between the crotch strap and the infant to reduce slouching. You may also place rolled towels on both sides of the baby for extra support. Make sure the chest clip is at the level of the armpits.

Do not use car seats that have a shield, stomach pad, or armrest, because these features can endanger a small infant.

If your baby was discharged from the hospital in a car bed, speak with your baby's healthcare provider about when it is safe to switch to a car seat.



Your late preterm infant's immune system is not mature at birth. That increases your baby's risk of getting sick during the first year. Infants with breathing problems face an increased risk, especially during the winter months.

Reduce the Risk of Infection

- ❖ Make sure that all people who handle your baby wash their hands thoroughly and frequently.
- ❖ Avoid crowds and public places, including malls, grocery stores, churches, and family gatherings.
- ❖ Limit the number of visitors in the early weeks at home. Do not allow anyone who is sick to visit the baby.
- ❖ Avoid exposing your baby to cigarette or cigar smoke.
- ❖ Avoid using air fresheners, perfumes, powders, and incense.
- ❖ Keep your baby away from fireplaces, kerosene heaters, paint fumes, and other odors that may affect baby's breathing.

Providing your baby with colostrum and breast milk is also beneficial. Both have disease-fighting antibodies that will boost the infant's immunity.

Hand Washing

Hand washing is the best way to kill germs and prevent illness. It is a good practice to ask everyone to wash their hands thoroughly before handling your baby:

Wet the hands and apply soap, rubbing the hands together to form a lather.

Scrub the backs of the hands, between the fingers, and under the nails.

After at least 20 seconds of scrubbing, rinse well and dry with a clean towel.



It is important for you to feel comfortable taking your baby home from the hospital. Of course, you may still have some questions or concerns. If you notice any change in normal behaviors or have an uneasy feeling about your baby's well-being, call your baby's healthcare provider or the hospital for immediate assistance.

Call Your Baby's Healthcare Provider or the Hospital Right Away If Baby

- ❖ has an axillary (armpit) temperature below 97.6°F (36.4°C) or above 99.3°F (37.4°C)
- ❖ has trouble breathing or is breathing irregularly
- ❖ appears sluggish or unresponsive
- ❖ shows signs of abnormal body temperature
- ❖ has a yellowing of the skin or the whites of the eyes
- ❖ has problems feeding or does not want to eat
- ❖ shows signs of dehydration
- ❖ begins vomiting or has diarrhea
- ❖ does not pass urine for 12 hours
- ❖ does not pass a stool for 24 hours
- ❖ is irritable and cries nonstop

If your baby's skin turns blue, call 911.



Infants who are born a little early have unique health needs. This booklet will help you get to know your late preterm baby and make the move from hospital to home easier for your family. You will feel more confident when you can respond to your baby's needs quickly and identify when you need to call your baby's healthcare provider.

To help your family thrive, this booklet is full of helpful information specific to the challenges of late preterm infants, including:

Behavior	Feeding
Jaundice	Temperature
Breathing	Infection

This booklet contains general information about late preterm care and is not meant to be used for diagnosis or treatment, or as a substitute for medical attention. If you have questions or concerns about your health or your baby's health, contact your healthcare provider or medical facility immediately.