



BRIGHAM AND  
WOMEN'S HOSPITAL



HARVARD  
MEDICAL SCHOOL

Department of Newborn Medicine  
75 Francis Street  
Boston, Massachusetts 02115  
Tel: 617-732-5952  
Fax: 617-232.3675  
Email: [ljohnson11@partners.org](mailto:ljohnson11@partners.org)

Lise C. Johnson, M.D.  
*Director*  
*Well Newborn Nurseries*  
*Instructor in Pediatrics*

Dear Parent,

Congratulations on the birth of your newborn! You are receiving this letter because your baby is born between 35 and 37 weeks of gestation. Health care providers will refer to your baby as being "late preterm".

You may be wondering what it means for your baby to be born these few weeks before his or her due date. Each baby is different but there are several ways in which late preterm newborns may be a bit less mature than full term babies. Therefore, doctors and nurses caring for your baby will be watching closely to see how your baby is adjusting to his/her new world.

Many late preterm babies are ready to be discharged home at the same time their mothers are discharged. Some do need a longer hospital stay than their mothers, usually because they need a little more time to learn to regulate their body temperature, to mature their ability to eat, or to receive treatment for jaundice.

Please review the enclosed information sheet, "What Parents of Late-Preterm Infants Need to Know"; which provides a nice summary of the medical issues that can arise for some late preterm newborns. Also included in this packet is information regarding the car seat test that will be done prior to your baby going home as well as some information about the benefits of skin to skin care for you and your newborn.

Though we hope this information is helpful to you, it is, of course, somewhat general. You can expect the nurses and doctors caring for your newborn to discuss the specifics of **your** newborn's care. Please feel free to ask lots of questions.

We wish you a healthy recovery during your postpartum stay and a wonderful start to your newborn's life.

Sincerely,

Lise C. Johnson, MD  
Director, Well Newborn Nurseries  
Brigham and Women's Hospital

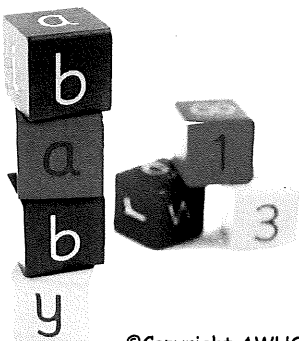
## What Parents of Late Preterm (Near-Term) Infants Need to Know

A late preterm (near-term) infant is a baby born three to six weeks early, or between 34 and 36 completed weeks of gestation (almost 37 weeks). In the last six weeks of pregnancy, the baby usually gains about one half pound per week, so babies born a few weeks early are somewhat smaller than full-term newborns. Although late preterm infants are usually significantly larger than very premature newborns, they are still premature and have their own, unique health considerations.

Recent studies show that babies born just three to six weeks early are at greater risk for potentially serious health problems than full-term newborns. It is important for parents to be alert for the special situations or needs that may arise because their baby is just a few weeks early.

### Five things parents of a late preterm (near-term) infant should know and watch for:

- 1. Feeding.** Late preterm infants tend to feed slower and may need to be fed more often than full-term babies. In addition, a late preterm infant may not be able to take in as much breastmilk or formula as a full-term infant. It is essential these infants feed often for the first several days to help prevent jaundice. As with all infants, if a baby begins to refuse feedings, even for less than a day, the parents or caregiver should contact the baby's nurse practitioner or pediatrician. Some late preterm infants may have problems initiating or maintaining breastfeeding; so a mother who chooses to breastfeed may need to ask for support from a nurse, physician or lactation consultant.
- 2. Sleeping.** Late preterm infants may be sleepier than most full-term infants and may sleep through needed feedings, in which case she or he should be awakened to eat after three to four hours. All infants, including late preterm infants, should always be placed on their backs to sleep.
- 3. Breathing.** Late preterm infants may be at greater risk for respiratory distress. If a baby seems to be having trouble breathing, parents or a caregiver should contact the baby's nurse practitioner or pediatrician immediately or dial 911.
- 4. Temperature.** Late preterm infants, like all preemies, have less body fat and may be less able to regulate their own body temperature than full-term infants. Like all newborns, late preterm infants should be kept away from drafts. Room temperatures should be warm enough to maintain the baby's normal temperature. A good rule of thumb is to dress your baby in one more layer than you are wearing.
- 5. Jaundice and Infections.** Late preterm infants may be more likely to develop jaundice, a symptom of a condition called hyperbilirubinemia that can lead to severe nervous system damage if not identified and treated early. Parents should make sure that their infant is screened for jaundice prior to discharge. Infants should be seen by their nurse practitioner or pediatrician within 24 to 48 hours of discharge; and should be seen at any time if their skin becomes yellow or if they are not feeding well. Late preterm infants have immature immune systems and may be more likely to develop infections and, like all babies, should always be watched for signs of illness or infection such as high fever or difficulty breathing.



## DEVELOPMENTAL NEEDS OF YOUR LATE PRETERM BABY

### **Early Arrival**

In the last few weeks of pregnancy, your baby's systems are still maturing. So when your baby is born 3-5 weeks before the due date, some of these systems are immature. This information sheet will help you to understand the needs of your late preterm baby and how you can help your baby to continue the process of normal development.

### **A New Environment**

It is important to be aware of your baby's environment. Remember that your baby just came from your womb where it was warm, dark and quiet, and there was little room to move. Your late preterm baby still needs that kind of environment to continue to mature. Some things you can do to promote your baby's growth include: dimming bright lights, lowering the noise in the room, interacting with your baby with smooth, calming movements and keeping your baby warm. Swaddling and skin to skin care are some of the ways to mimic the security of the womb environment.

### **Wake and Sleep Cycles**

It will help you to identify which state of alertness your baby is in to guide your actions. Late Preterm babies may pass through these states very quickly and will need your assistance in achieving a smooth transition. Here are the 6 states:

**Deep sleep** –Baby's breathing will be slow and regular. They are hard to wake up.

**Light sleep** - Rapid eye movements under the eyelids indicate REM sleep. REM sleep is good for brain growth.

**Drowsy**- This is when your baby can be woken to feed if overdue.

**Quiet Alert** – Your baby is awake but calm. This is the ideal time to feed/ interact.

**Active Alert** – Your baby is moving, kicking, sucking. This is a good time to try observed tummy time.

**Crying** – Your baby may need your help to achieve a calmer state.

### **The Importance of Sleep**

Deep sleep and lighter sleep are very important to your baby's development. REM sleep is when most of the brain's growth occurs. You may find that your baby has shorter alert periods than you expected and tires easily while feeding. Clustering your baby care activities will give the baby longer nap times. This will help the baby to achieve deep REM sleep.

### **Introducing Your Baby to the World**

During your baby's alert moments try to choose only one stimulating or soothing activity at a time. For example: touching, massaging, gentle rocking or vibrating, cooing, singing softly, talking quietly, making eye contact.

You will have many family and friends who will want to meet your new baby as soon as possible. It is very important that you share with them all the protective measures you have learned so that your late preterm baby can continue to mature and thrive. For the first couple weeks at least, it may be necessary for you to limit the time your baby is expected to visit with other people. This will help your baby to have the energy for feeding, sleeping soundly and growing.

### **Keeping your Baby Warm**

In the last few weeks of pregnancy, babies gain about one half pound per week. For this reason, your late preterm baby may be born with less fat stores. Sometimes it takes time for their bodies to adjust to the cooler outside world. An incubator may be needed for a brief time to help maintain the ideal temperature. We will teach you how to use a thermometer to check your baby's temperature, and guide you in the amount of swaddling layers your baby needs. Also, hats are very important for preventing heat loss. The most important thing you can do for your baby when you are together is to mimic the womb environment with "skin to skin care".

### **Skin to Skin Contact**

We now know that when a newborn baby is held with the baby's chest and belly touching the parent's chest ("skin to skin"), there are many benefits for the baby. Some of these include warmth, comfort, successful breastfeeding, calming and increased attachment. The nursing staff will help you with skin to skin care.

### **Feedings and Weight Gain**

You may find you have to wake your baby for feedings, or limit how long you work on a feeding that is going slowly. Some late preterm babies may have a weak suck or uncoordinated oral/motor movements and so may require extra help to get enough nourishment. The staff will work with you to individualize your baby's feeding plan.

### **When Enough is Enough!**

It is easy for late preterm babies to become over stimulated from too much activity, noise, light or visiting. Some normal behaviors may also be cues that your baby has had enough stimulation, these may include:

- Increases in breathing or heartbeat.
- Changes in skin color: paling, mottling, reddening. Repetitive sneezing, yawning, hiccoughing or sighing.
- Spitting up, gagging, or straining with a bowel movement.
- Movements like arching or turning away.
- Startling with hands stretched out in a "stop" gesture.
- Fussing, crying, or limp body tone.

To help your baby calm after they have been over stimulated, remove the source of the overstimulation. This may include asking visitors to come back after the baby has had a chance to rest. Then try skin to skin contact or any of the activities listed above in Introducing Your Baby to the World.

### **Discharge**

Sometimes your baby needs a little more time in the hospital to master all of the skills that are needed to grow and thrive at home. In these cases, you may be discharged from the hospital before your baby is. Reasons for this usually have to do with the baby's ability to stay warm, feed well, gain weight and ability to tolerate car travel.