

Information for parents of preterm babies at 31 to 34 weeks gestation



Reading this booklet can answer some of the questions you may have after the birth of your preterm baby. Your baby's health care team can help by giving you the information and support you need to understand your baby's condition and take part in his or her care.

We have a lot of information available to parents and families. In this book, where you see a word **in bold letters**, this means another handout is available. Our materials are also available online in our Patient Education Library at www.hamiltonhealthsciences.ca

Please feel free to ask questions and talk with your Obstetrician or your baby's health care team members. All your questions are welcome.

What does “preterm” mean?

“Term” refers to the length of a pregnancy. “Full-term” is the length of a complete pregnancy - 37 to 41 weeks. “Pre-term” means “before term”, that is a pregnancy less than 37 weeks.

A preterm or premature baby is a baby born before 37 weeks of pregnancy. The number of weeks that the baby was in the uterus is called his or her 'gestational age'. In Ontario, about 1 in 12 babies is born preterm. We do not always know why a baby is born preterm.

The tiniest preterm babies are born at 23 to 25 weeks. Preterm babies born between 31 and 34 weeks gestation have a greater than 95% chance of survival. Preterm babies have a better chance of surviving if they are cared for in a specialized nursery.

The outcome for a preterm baby depends a lot on how early he or she is born. Because the body and organs of a preterm baby are not fully developed, he or she is at risk for health problems. Overall, the outcomes for preterm babies are much improved, although they are at higher risk for having problems than full-term babies.

What will happen during the delivery?

A team of health professionals specializing in the care of babies will be on "stand by" in the delivery room, ready to provide care for your baby. As soon as your baby is born, he or she will be placed on a bed with an overhead heater. This is where your baby's colour, breathing, heart rate, reflexes and tone can be assessed.

If your baby's condition is stable, your baby may be wrapped in a warm blanket and brought to you to see or hold. Then your baby will be taken to the neonatal nursery in a special incubator for observation and special care. Depending on your baby's condition, this may happen quite quickly. If your baby needs further care right after delivery, he or she may be taken to the infant stabilization room in the Labour and Delivery (L&D) area.

A member of the neonatal health care team will talk with you and your partner after the birth. More information will be available after your baby's admission to the neonatal nursery. Your partner can visit your baby in the nursery as soon as possible. You may visit as soon as you can, depending on your condition and care.

What will my baby look like?

Preterm babies are small and may look thin and fragile. Their heads and stomachs seem large compared to the size of their arms and legs. What your baby looks like will depend on how early he or she was born. Your baby may appear 'skinny' because he or she has not had much time to develop body fat.

Your baby's skin will be very soft. At 31 weeks gestation the skin is thin, reddish in colour, and can appear translucent. By 34 weeks gestation the skin is pink and looks thicker. The real colour or pigment of the skin usually appears about 34 weeks gestation.

Preterm babies have soft, downy hair called lanugo on their backs, arms and legs. This fine hair disappears as the baby matures and is able to better control his or her body temperature.

The ears are soft and small and "hug" the skull because they have not yet developed firm cartilage.

At 31 weeks, the soles of the feet will have 1 or 2 creases. During the following 3 weeks, a few more creases begin to appear.



Who is there to support me?

We realize that this can be a very challenging time for families. You, your baby and your family will receive support from a team of health professionals.

The social worker is a member of this team who can provide added support during your baby's stay in the neonatal nurseries. The social worker can help you and your family adjust to having a preterm baby by helping you:

- understand information
- get help with finances, accommodation or other resources
- find ways to support your other children
- manage the changes you are experiencing

How will I learn to care for my baby?

During your first visits to the nursery you may have questions about what you can do to help your baby. The nursery staff will help you feel more comfortable and show you how to **care for your baby**. We will give you lots of information and support, so that you can take part in your baby's care as much as possible.

If you are planning to **breastfeed**, a breastfeeding specialist called a lactation consultant (LC) will help you get started. If your baby is not able to breastfeed right away, you can express your breastmilk. The LC will show you how to pump both breasts at the same time with an electric breast pump. To build up a good supply of milk, you will need to pump your breasts regularly, as often as you would feed your baby.

What are some of the problems that can occur in preterm infants?

Preterm babies are not fully developed. They may not be mature enough to control their body temperature, breathe on their own or feed by sucking.

They are at greater risk for health problems such as:

- breathing problems
 - temperature problems
 - infections
 - jaundice
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Breathing problems

A baby's lungs are not fully developed until about 36 weeks.

Most babies born between 31 and 34 weeks gestation need some help with breathing. Some babies need extra **oxygen**. Others may also need a machine called a **ventilator** to help with breathing. A baby may need help with a ventilator right after birth or hours later, if he or she develops trouble with breathing. Some babies need the ventilator for just a few days while others, particularly the more immature babies, may need this help for a number of weeks.



As well as immature lungs, preterm babies may not have enough **surfactant**. Surfactant is the natural substance that coats the inside of the air sacs (alveoli) in the baby's lungs and keeps them inflated. Artificial surfactant can be given to babies to coat the lungs and make breathing easier.

The breathing problem caused by immature lungs or lack of surfactant is called **Respiratory Distress Syndrome** or **RDS**.

The part of the brain that controls breathing may not be fully developed until about 36 weeks gestation or later. This can cause pauses in breathing called **apnea**. Your baby's breathing will be closely monitored. Apnea usually goes away as the baby matures, but a few babies need treatment with medication.

Temperature problems

Preterm babies have difficulty controlling their body temperature. The part of the brain that controls body temperature is not fully developed and these babies have little body fat to keep them warm. As a result, preterm babies can lose heat very quickly.



Infections

The immune system, which is needed to fight against **infections**, is not fully developed in preterm babies. Therefore, the babies can get infections easily.

Preterm babies may develop one or more infections while in the Neonatal Nursery. Most of these infections respond to treatment with antibiotics.

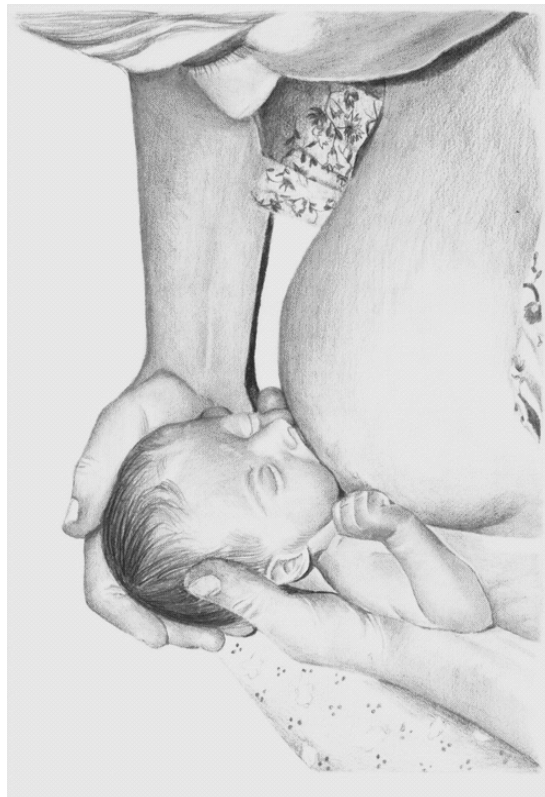
Feeding problems

Most babies born before 34 weeks gestation will need help with **feeding**. Some are not mature enough to suck and swallow well. Others are not able to tolerate breastmilk or formula.

Depending on their age and condition, there are many ways to help preterm babies get the nutrition they need such as:

- feeding breastmilk or formula through a soft plastic tube put through the baby's nose into the stomach, called gavage or “tube” feeding
- adding extra vitamins and minerals
- giving a special formula made for preterm babies, if breastmilk is not available
- giving nutrition by **intravenous (IV)**, with a special intravenous solution called total parenteral nutrition or TPN

Soon after 32 weeks gestation, if your preterm baby is feeling well, he or she may be able to try breastfeeding once a day. By 34 weeks gestation, your baby may breastfeed twice a day.



Jaundice

Preterm babies have more of a chance of getting jaundice. Jaundice is a build up of bilirubin in the bloodstream. Bilirubin is formed when red blood cells break down. As the baby's body breaks down red blood cells that are no longer needed, the bilirubin is released into the blood. The bilirubin must be removed from the blood by the liver. If there is a lot of bilirubin in the blood, or the baby's liver is not mature enough to remove the bilirubin, the baby becomes jaundiced.

To tell if there is jaundice, the amount of bilirubin is measured in a small sample of blood. Jaundice can be seen by a yellow colour of the baby's skin and the white part of the eyes.

Sometimes jaundice gets better without any treatment. However, if the bilirubin level gets too high, the baby may need **phototherapy**. This treatment involves shining a special set of lights on the baby's skin. The lights help to break down the bilirubin.

How long do preterm babies stay in hospital?

Generally, preterm babies stay in hospital until about the time they were due to be born, about 38 weeks of pregnancy. This may be longer if there have been problems during your baby's hospital stay. Once your baby is able to feed by sucking, to grow, and to maintain his or her temperature in a crib, he or she will be discharged home.

You most likely will be discharged from hospital before your baby is ready to leave. Being separated from your baby can be distressing. You can keep in touch by calling or visiting the nursery as often as you can. The social worker can help you if you are from out of town and need to find a place to stay near the hospital.

As soon as your baby no longer requires intensive care, he or she will be **transferred to an appropriate nursery**. Every attempt will be made to transfer your baby to a hospital with an appropriate nursery as close to home as possible. Your baby's care team will make these plans with you.

Transferring babies who are doing well to their community hospitals makes sure that we have intensive care beds available for very sick babies who need this level of care.

What special tests will my baby need?

Your baby's care will include medical tests. The health care team will explain the purpose and results of your baby's tests.

Hearing screening

All preterm babies born in Ontario have a hearing assessment.

This is a simple test to tell if a baby has hearing loss. Hearing loss can delay or prevent a baby from learning to talk and understand language. If hearing is developing normally, preterm babies can hear and respond to voices at 31 to 34 weeks gestation.

Every year in Ontario about 4 out of 1000 babies are born deaf or with a hearing problem. Babies in the neonatal nursery have a slightly higher likelihood of deafness or hearing loss.

Preterm babies greater than 33 to 34 weeks corrected age (see next page) are screened for hearing loss. If your baby does not have a hearing test while in the neonatal nursery, the test will be done at the community hospital or after the baby has gone home from the hospital.

What should I know about a preterm baby's development?

Most preterm babies born between 31 and 34 weeks gestation grow and develop without any problems at all. However, this depends on the health of the mother and how sick the baby is after delivery.

“Corrected age”

When looking at your child's developmental progress you need to make allowance for your child's prematurity by using his or her “corrected age”.

Corrected age is the child's actual age minus the number of weeks that he or she was born early. Corrected age is used because normal development relates to when a baby was due to be born, rather than the birth date.

As each year goes by, the difference between actual and corrected age becomes less important. For infants born before 32 weeks gestation, “corrected age” should be used until about 3 years.



Muscle tone and movement

Preterm babies' muscles are not fully developed so they are weak.

At 31 weeks gestation, babies may lie quietly stretched out with some flexion or bending of the legs. By 34 weeks gestation, babies will lie with some bending of the legs and arms. When preterm babies move, the movements sometimes look shaky because their ability to move is not mature. Preterm babies may sleep most of the time. This helps them conserve energy for growth. Some babies have trouble sleeping soundly and may easily be disturbed by noise, handling and activity.

In the first few months, premature infants can have problems with too little or too much muscle tone. This may affect the way your baby moves his arms and legs. These problems usually disappear during the first year of life. Your baby may be referred to a special therapist in your community who will assess your baby and help with his or her development.

Vision

By 31 to 32 weeks gestation, babies are beginning to briefly follow objects moving up and down or side to side. At 33 to 34 weeks gestation, babies are more interested in what they see and are learning to follow objects in all directions.

What follow-up care do preterm babies need?

After leaving the hospital, preterm babies need to have regular visits with their family doctor or pediatrician. During these visits you can discuss your baby's health, growth and development.
