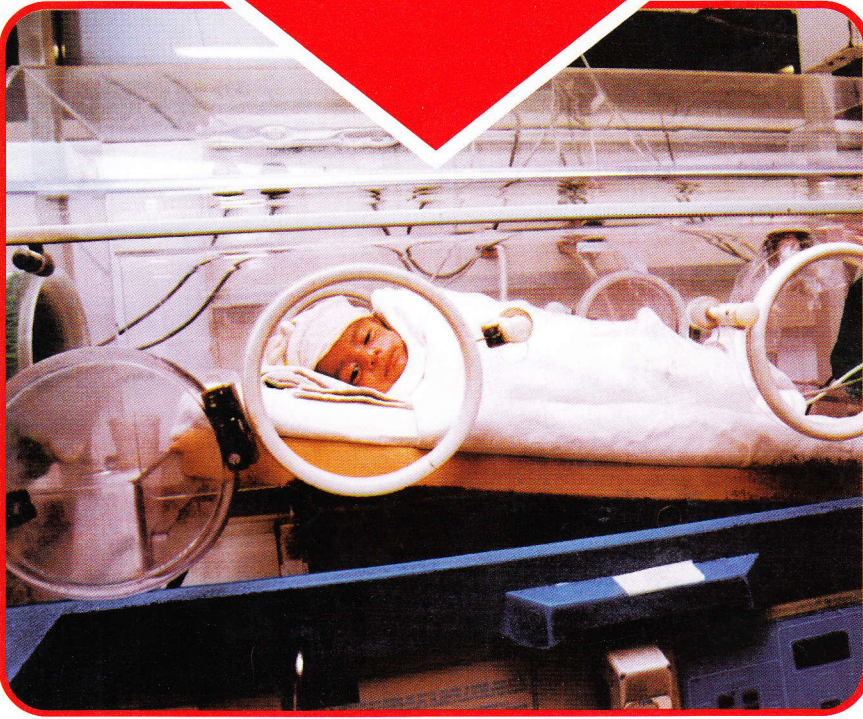


# Caring For a Premature Baby

A Guide For Parents/Families



This brochure provides information about Caring for a Premature Baby. It is designed to respond to the questions parents frequently ask



آغا خان یونیورسٹی ہسپتال، کراچی

The Aga Khan University Hospital, Karachi.

P.O. Box 3500, Stadium Road, Karachi-74800, Pakistan,

Website: [www.aku.edu](http://www.aku.edu)

## **Caring for a Premature Baby**

### **What is Meant by a Premature Baby?**

Normally, it takes 40 weeks from the time of conception for a baby to grow to full term. When a baby is born before 37 weeks of pregnancy, he/she is called premature.

### **Why was my Baby Born Prematurely?**

In about 50% of the births, the doctor won't be able to give you the cause, but the following conditions can contribute to prematurity:

- High blood pressure or diabetes in mother;
- Cervical incompetence (where the cervix stays partially open during pregnancy);
- Multiple pregnancies (such as twins, triplets etc);
- Teenage pregnancies;
- Last baby delivered prematurely.

### **What Do Premature Babies Look Like?**

Your baby may look different in following aspects.

- Low body weight. This depends upon the stage of pregnancy your baby was born at. The more premature the baby, the lower the weight. Because all babies lose weight in the first few days after they are born, it is common for parents to notice that the baby looks much smaller when they visit him/her a few days later than he/she did at birth.
- The premature baby's skin is very thin and veins are prominent underneath the skin. The colour of the skin can also change very quickly.
- In a boy, the penis will look small and the testicles may not have descended all the way down in the scrotum yet. In a girl, the larger outer folds (labia majora) have not folded over the inner folds (labia minora) yet and may thus look abnormal.
- In the very young premature baby, there may be no breast tissue developed yet. Development of breast tissue will become normal when a premature baby grows up.
- Your baby has soft, wrinkled ears that bend whichever way you put them.



- Premature babies can see and hear normally. However, preterm infants best see brightly coloured objects when they are close (9-12 inches away).
- The reflexes, responses and behaviour of a premature baby are different from a full term baby and under development. When the baby moves the limbs, it seem a bit shaky or unsteady to you, this improves on its own as the baby grows. The following are rough estimates:
- **Sucking** is seen as early as 26 weeks but it is not strong enough for proper feeding until 32-34 weeks;
- **Swallowing** is seen earlier but it is very tiring for the baby. It is not well developed until 34 weeks. Before this the baby may need to be fed by a feeding tube;
- **Crying** loudly is not seen or heard in the premature baby;
- **Hiccups** are normal for all babies. They are caused by a spasm and irritation of nerves in stomach but they don't seem to bother babies. No treatment is needed.

## What Problems Might a Premature Baby Have?

As you know, every baby is different. Your baby will not have the same problems as the baby in the next incubator.

- **Failure to Breathe at Birth**  
Premature babies may have problems in initiating breathing after birth and doctors make preparations in advance for these risks.
- **Difficulty in Maintaining Body Temperature**  
The premature baby has very little body fat and can lose heat rapidly.
- **Respiratory Difficulty (Respiratory Distress Syndrome)**
- Although the premature baby's lungs and breathing passages are already formed, some premature babies lack surfactant (a chemical which helps in the expansion of the lungs). When there is not enough surfactant, it compromises lung expansion thus compromising gas exchange (for both oxygen and carbon dioxide) in the lungs. This condition is commonly known as Respiratory Distress Syndrome (RDS).

- All full term and premature babies breathe through their nose, with a lot of help from abdominal muscles. So the tummy moves up and down more than the chest. The baby may thus appear to work very hard at breathing, may appear to suck in their chest wall, a condition called retractions.

If retractions are associated with abnormal sounds (called grunting), this reflects moderately severe respiratory difficulty and the baby would need to be referred to a paediatrician.

- The baby with RDS needs help to expand his lungs and maintain good oxygenation. Help is given in the form of:
  - Oxygen;
  - Humidity;
  - Medications such as surfactant;
  - Machines called ventilators which assist the baby to breathe.

- **Apnoea:**

Because of immature breathing systems, the premature baby sometimes forgets to breathe, especially when asleep. This is called apnoea of prematurity;

When this happens, the baby's monitors will sound an alarm and the nurse will give the baby a stimulus (e.g. tapping soles of the feet) to start breathing.

- **Possible Heart Problems:**

When the baby is born and is no longer attached to his mother by the umbilical cord, he/she breathes air into his lungs and the circulation changes. The channel (called ductus arteriosus) through which baby was receiving blood from the mother's placenta closes within about 24 hours in a full term baby but often takes longer in the premature baby. If the channel fails to close (called PDA), it may lead to extra pressure on the baby's heart and may need to be closed by giving medicines or in some cases by surgery.

## • **Feeding Problems**

Very premature babies (usually under 34 weeks gestation) may not have fully developed sucking and swallowing reflexes and may not be able to feed actively on the breast. They will therefore run the risk of developing low blood glucose and losing a lot of weight unless they could be provided adequate nutrition through other means.

## • **Other Problems**

Because premature babies may not have fully developed body systems, they are at a higher risk of problems such as newborn jaundice or anaemia (drop in haemoglobin).

## **What Happens When a Premature Baby is Born?**

The doctors and nurses will keep him/her warm and take care of any problems. When the baby is settled, they will move him to the Nursery or Neonatal Intensive Care Unit (NICU) as required. In these special areas, there are many qualified people (including doctors and nursing staff) who will watch over and provide special care to the baby.

## **What Help is Needed for Breathing Problems?**

Baby is helped to breath properly through the following equipment.

### **Monitors:**

Monitors are electrical devices that measure breathing rate as well as heartbeat through electrodes placed on the baby's chest and leg. The monitors will sound the alarm if there is any change in the condition. The alarms are set for higher as well as lower limits.

### **Oxygen:**

The premature baby, who is having breathing difficulties, may need more oxygen than normal through a variety of methods:

- a. Plastic tubing from an oxygen outlet in the wall can control the amount of oxygen in the incubator;
- b. The tubing can be attached to a head box, which rests on the mattress over the baby's head;
- c. Oxygen can also be given through breathing machines.

## **Breathing Machines (ventilators):**

Sometimes a baby is able to breathe by him/herself but is not yet able to fully expand his lungs and may need to be helped by a breathing machine (ventilator) which helps in maintaining a constant flow of air and oxygen to the lungs;

This can be done by giving Continuous Positive Airway Pressure (CPAP), in which case, a small tube carries air under controlled pressure from the machine to the baby's lungs to keep them expanded;


Sometimes a baby is not able to do all of his breathing for himself and ventilators will provide assistance by forcing air and oxygen into the baby at different rates;

Because the premature baby does not have a cough reflex, the nurse will need to help the baby regularly by putting a small tube into the baby's mouth and throat and gently suctioning out the mucous. This may require frequent position changes as well.

## **How Can We Keep Preterm Babies Warm and Provide Good Nutrition?**

- It is important to keep them warm immediately and pay special attention to the risk of becoming cold (hypothermic). This can be done by:
  - Keeping baby in an incubator - a plastic box with heating in which the baby is kept in order to prevent heat loss from the body;
  - Under a radiant warmer where an overhead heater provides heat;
  - Keeping the baby well wrapped in a cot (heated or otherwise.)
  - The premature baby receives his/her nourishment by intravenous (IV) fluids, by milk (breast or formula) and by vitamins.

Even though the baby may not be able to suck properly, it is vitally important to give him/her the mother's first milk called colostrum. This special colostrum contains extra energy and special antibodies which will help the baby in fighting infection in the first few days.



Since the premature baby has a small stomach and may not feed well like normal babies, small feedings are given every two to three hours. The baby may need help with feeding through a naso-gastric (NG) or oro-gastric (OG) tube. This is a very small, long, soft plastic tube which goes through the baby's nose/mouth down to his stomach and the baby is provided milk (usually mother's breast milk) through it

### **Important Things to Note When your Baby Goes Home:**

- Try to limit the number of visitors;
- Be careful with hand washing before handling the baby and feeding;
- Many premature babies throw up some milk after every feeding. This is not a problem;
- Help the baby to burp after each feed and place in prone position for a short while after feeding to help winding;
- Sleeping on the side (either left or right) is the safest positions for babies to sleep. Babies should not be made to sleep on their tummies;
- Remember that babies can see, hear, smell and feel. They like to do all of these things. So talk to them and play.



## How Does it Feel to be the Parents of a Premature Baby?

When a baby is born ahead of time, it seems as if your dreams of having a healthy baby have been shattered. Your hopes and expectations have changed. Many unexpected problems can occur with the baby, often in an unpredictable manner. It will take time to adjust to what has happened to you and to learn to be a parent. Constant involvement of both parents in baby's care may help to adjust to this situation better.

Please be patient through this process as it is impossible to accurately predict the length of stay of a preterm baby in hospital. In general, the length of stay of the baby in hospital depends upon the degree of prematurity and the nature of problems in the first few days. The staff of the neonatal unit will be happy to answer your questions and offer an accurate assessment of the problems and solutions.

### For further information, please call:

Neonatal Intensive Care Unit  
Aga Khan University Hospital  
Karachi.  
Phone : 4930051, Ext : 3390

Emergency Ward  
Aga Khan University Hospital  
Karachi.  
Phone : 4930051, Ext : 1090

