

**COLLEGE OF NURSING
MADRAS MEDICAL COLLEGE, CHENNAI – 03.**

CARE OF PRETERM BABIES



MEDICAL GUIDE

**Dr. Kamalarathinam M.D. (DCH)
Professor and Head - Neonatology,
ICH&HC, Egmore, Chennai-8.**

RESEARCH GUIDE

**Mrs. Seetharaman Vijayalakshmi M.Sc. (N), MBA.
Reader,
Child Health Nursing,
College of Nursing, MMC, Chennai-3.**

RESEARCHER

**Mrs. G. Rajeswari,
M.Sc. Nursing II year student,
Child Health Nursing,
College of Nursing, MMC, Chennai-3.**


What is meant by preterm baby?

A baby born with a gestational age of less than 37 completed weeks is termed as preterm baby. These are also termed as immature born early or premature.

Sub-categories of preterm infants:

- a) Extremely preterm (less than 28 weeks of gestation)
- b) Very preterm (28 to 32 weeks of gestation)
- c) Moderate to late preterm (32 to less than 37 weeks) of gestation.

Causes of Preterm:

 **Spontaneous causes:** There may be spontaneous onset of preterm birth. The causes are,

- Antepartum hemorrhage
- Cervical incompetence
- Bi- carnuate uterus
- Chronic and systemic maternal disease
- Threatened abortion
- Low prenatal weight gain
- Poor socio economic condition
- Maternal Malnutrition
- Cigarette smoking / Passive smoker
- Drug addiction during pregnancy
- Multiple pregnancy and congenital malformation
- Very young mother
- Frequent child birth
- Previous history of preterm delivery.

Induced causes: The preterm labour may be induced to safeguard the health status of the mother or fetus, when there is impending danger for them. The conditions may be,

- Maternal diabetes.
- Severe heart diseases.
- Hypertension, Severe Pre-eclampsia and Eclampsia.
- Fetal hypoxia and fetal distress.
- Severe RH Iso immunization.
- Anemia.

Characteristics of preterm infants:

A preterm baby is smaller in size with large head. Head circumference may be less than 33 cm, but exceeds the chest circumference by more than 3 cm.

- Poor and sluggish neonatal reflexes such as moro, sucking and swallowing.
- Limbs are extended due to hypertonia with poor recoil of flexed forearm when it is extended.
- Head larger than body.
- Skull bones are soft.
- Sutures are widely separates.
- Large fontanel.
- Face is small with small chin.
- Less or absent of buccal fat.
- Scalp hairs are scanty, wholly and fuzzy with separate individual hair fiber.
- Eyes remain closed and protruding due to shallow orbit.
- Ears are soft, flat and poor recoil of pinna.
- Cartilages not fully developed.
- Skin is shiny, delicate and pink with little vernix caseosa.
- Plenty of lanugo.
- Breast nodules are absent or less than 5 mm

- Abdomen is full, soft and round with prominent veins.
- Nails are short and not grown.
- In female child - labia minora is exposed due to poorly developed widely separated labia majora.
- In male child – undescended testes may be identified.

Management of preterm babies in home care setting:

1. Maintenance of stable body temperature.
2. Exclusive breast feeding and maintenance of nutrition.
3. Eye care
4. Cord care.
5. Universal Immunization Programme.
6. Follow up care.

THERMOREGULATION

- Baby skin temperature should be maintained between 36.5 - 37.5°C.
- Baby should be covered using frock, cap, socks and gloves.
- Constant monitoring of temperature is essential.
- Bathing should be delayed and sponging by pre-warmed towel to be done.
- External heat sources be used for thermal protection of these neonates.
- Intense Kangaroo mother care (KMC)
- Protection of child from infecting agents.



Benefits of Kangaroo Mother Care:

- KMC helps in thermal control and metabolism.
- Reduces the risk of hypothermia.
- Increased duration and rate of breast feeding.
- KMC satisfies all five senses.
 - listen the breast to feed (hearing sense).
 - skin to skin contact (touch).
 - sucks the breast milk (taste sense)
 - makes eye contact with mother (vision)
 - KMC promotes mother-infant bondage.
- Mother feels more relaxed, comfortable and establish better bond.
- KMC not requires any additional staff.
- KMC helps in growth and development process of the child.

BREAST FEEDING

- ✓ Breast feeding should be initiated early as possible.
- ✓ Encourage demand feeds.
- ✓ Breast milk contain all nutrients such as
 - protein, sodium, chloride and immunoglobulin A (IgA), growth factor, hormones, prolactin, calcitonin, Thyroxin T4, steroids, Taurine.
 - IgA is important in control of bacteria in the intestinal track which is an additional protection from infection provided by leukocytes, lactoferin and lysozyme present in breast milk
- ✓ Breast milk is easily digestable
- ✓ It contains amino acids for growth and development
- ✓ It protects the infant from viral and bacterial infection
- ✓ Protects the infants from allergy, bronchial asthma, hypoglycemia, tetany, convulsions etc.,
- ✓ Promotes bonding and psychological benefit between mother and child
- ✓ It can be given with spoon or paladai.

- ✓ Breastfeed should be given 8-10 times a day in which 1 feed compulsory at night.

Indicators of adequacy of breast feeding:

- ❖ Audible swallowing sound during the feed.
- ❖ Letdown sensation in mother's breast and fullness of abdomen in child.
- ❖ Wet nappies 8 or more in 24 hours.
- ❖ Average weight gain of 18 gm to 30gm/day.
- ❖ Baby sleeps well and does not cry frequently.
- ❖ Baby has good muscle tone and healthy skin.

EYE CARE

- ❖ Provide eye care twice a day to the baby.
- ❖ Wash hands before you and after eye care.
- ❖ Soak a cotton ball in warm water and squeeze gently.
- ❖ Clean the eye by gentle wiping from inner canthus to outer canthus.
- ❖ Use different cotton balls for each eye to avoid potential cross infection.



CORD CARE

- ✓ Provide cord care twice a day to the baby
- ✓ Wash hands before and after care.

- ✓ Do not apply anything on the stump.
- ✓ Fold nappy below the level of the stump.
- ✓ Keep cord stump loosely covered with clean clothes.
- ✓ If stump is soiled, wash it with clean cloth.
- ✓ Look for signs of infection like pus drainage, redness around the cord or swelling.



IMMUNIZATION

Immunization is the process of protecting an individual from disease, through introduction of live or attenuated or killed organisms in the individual system.

- Immunization is one of the cost effective health interventions.
- Immunization against vaccine preventable diseases is essential to reduce the child morbidity, mortality and handicapped children.



- Vaccine preventable diseases are the six killer diseases such as primary tuberculosis, polio, diphtheria, pertussis, tetanus, measles, hepatitis and optional vaccines as meningitis, rota virus and rubella.

FOLLOW-UP CARE FOR PRETERM BABIES

- # Give baby bath daily with warm water
- # Exclusive breastfeeding compulsorily for initial 6 months
- # Prevent hypothermia by covering the child with adequate
- # Provide eye and cord care twice daily
- # Feed the baby every 2 hours
- # Baby clothes should be easily washed with detergent and dry at direct sunlight
- # If the baby has cough, cold or any other infection seek medical advice
- # Properly immunize the child
- # Weaning should be start after 6 months
- # Keep the child away from infected persons
- # Baby should have observed for steady weight gain (Growth monitoring chart)
- # Able to suck and maintain warmth
- # Check for fall of cord and the nature of umbilicus
- # Complications should be watched like
 - Minor neurological disabilities
 - Seizures
 - Hypoglycemia, lethargy
 - Blindness due to ROP
 - Language and ADHD disorders.



*A **baby** is as pure as an angel and as fresh as a blooming flower!*