

KANGAROO MOTHER CARE



For Healthcare Professionals Only



**HCP
CONNECTIONS** | Nurses'
Edition

For Indian healthcare professionals
An education initiative by Danone Nutricia India

Dear Reader,

As science continuously evolves it is important that the health care professional keeps updated on the latest advancements in the field. Through continuous medical education programs one can maintain, develop, or increase the knowledge, skills, and professional performance. We are glad to bring to you educational programs which are designed keeping in mind your educational needs.

The current module is aimed to provide you with basic knowledge on Kangaroo Mother Care (KMC) and how it should be practiced in the NICU. In India where millions of babies are born Low birth weight/Preterm this simple technique of keeping the baby in skin to skin contact with the mother has been shown to save life. While you must already be practicing KMC in your setting, we hope to refresh your knowledge with this module.

Please note that the content in this module is for general information and educational purpose only. While we strive to give you accurate, up to date information, follow your doctor's advice on KMC.

Thank you for participating in this CME. We hope you will enjoy learning with us.

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What is Kangaroo Mother Care?

Kangaroo mother care is referred to caring for preterm infants by initiating skin-to-skin contact with the mother. It fosters their health and well being by promoting effective thermal control, breastfeeding, infection prevention and bonding. In KMC, the baby is continuously kept in skin-to-skin contact by the mother and breastfed exclusively to the utmost extent, KMC is initiated in the hospital and continued at home.

The major components of KMC are:

- Kangaroo Position - maternal infant skin-to-skin contact
- Kangaroo Nutrition - early and exclusive breastfeeding
- Kangaroo Support - never separate mother and baby

Skin-to-skin contact is between the baby's face, chest, abdomen, arms and legs and mother's chest and abdomen. The more skin-to-skin, the better it is. Skin-to-skin contact should ideally start at birth, but is helpful at any time.

Exclusive breastfeeding means a mother should take the baby for frequent suckling on the breast or express her milk and provide it orally to the baby. She can breastfeed in a kangaroo position. KMC actually makes breastfeeding easier. Holding the baby near the breast also stimulates milk production.

Support to the dyad means that whatever is needed for the medical, emotional, psychological and physical well being of mother and baby is provided to them, without separating them. This might mean adding ultramodern equipment if available, or purely intense psychological support from the family and health care providers.



- KMC babies have stable oxygen rates and breathing
- The baby feels secured and relaxed during kangaroo care so all of the hormones prepare the gut to absorb food maximally. These babies show better weight gain which in turn leads to reduced hospital stay
- The baby is secure in skin to skin and the mother and infant bond is established early. This will mean that the baby will receive better long term emotional stability
- It promotes family centred care. It reduces feelings of inadequacy, anxiety and frustration experienced by parents. It also facilitates closeness and bonding

When should one start KMC?

When a small baby is born, complications can be expected. The more preterm the baby is, the more frequent the problems are. Initial care for infants with complications is provided according to national or institutional guidelines. Very small newborn infants and those with complications are best cared in incubators in the Neonatal Intensive Care Units where they can receive the necessary attention and care.

In case of extremely low birth weight babies and those born at less than 30 weeks of gestation, the risk of respiratory distress and other complications associated with prematurity are high. It may take weeks before their condition allows initiation of KMC. The exact time to initiate kangaroo care should be assessed and decided individually by the concerned doctor.

KMC can be started for these babies as soon as their general condition improves and the baby no longer needs intensive medical care, but simply warmth, protection from infections and adequate feeding to ensure growth. Encourage the mother of a stable preterm baby to start kangaroo care at the earliest.

Short KMC sessions can begin during recovery when baby still requires medical treatment (IV fluids, low concentration of additional oxygen). For continuous KMC, however, baby's condition must be stable; the baby must be breathing spontaneously without additional oxygen.

The ability to feed (to suck and swallow) is not an essential requirement. KMC can begin during tube-feeding.



Benefits of Kangaroo Mother Care:

- Kangaroo care improves breastfeeding. It is seen that KMC helps to increase breastfeeding rates as well as increased duration of breastfeeding
- It helps in thermoregulation. Prolonged skin-to-skin contact between the mother and her preterm/LBW infant provides effective thermal control with a reduced risk of hypothermia

Preparing for KMC

Counseling When baby is ready for KMC, arrange a time that is convenient to the mother and her baby. The first few sessions are important and require extended interaction. Demonstrate to her the KMC procedure in a caring, gentle manner and with patience. Answer her queries and allay her anxieties. Encourage her to bring her mother/mother in law, husband or any other member of the family. It helps in building positive attitude of the family and ensuring family support to the mother which is particularly crucial for post-discharge home-based KMC. It is helpful that the mother starting KMC, interacts with someone already practicing KMC for her baby.

Mother's clothing KMC The mother can wear whatever she finds comfortable and warm in the ambient temperature, provided the dress accommodates the baby, i.e. keeps him firmly and comfortably in contact with her skin.

Baby's clothing: When the ambient temperature is 22-24°C, the baby is carried in kangaroo position naked, except for the diaper, a warm hat and socks.

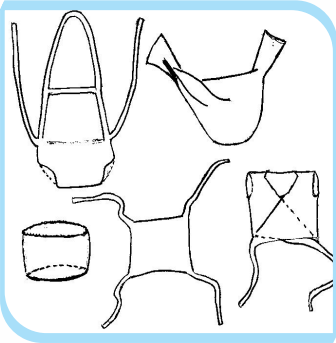
When the temperature drops below 22°C, baby should wear a cotton, sleeveless shirt, open at the front to allow the face, chest, abdomen, arms and legs to remain in skin-to-skin contact with the mother's chest and abdomen. The mother then covers herself and the baby with her dress, gown or a baby wrap.

Suitable apparel that can retain the baby for extended period of time can be adapted locally.



The Kangaroo care bag or binder:

This is the only special item needed for KMC. It helps mothers hold their babies safely close to their chest. These bags and binders are tailor-made and specially designed for preterm babies to maximize support and comfort to the mother baby duo. This helps to boost the mother's confidence to handle her fragile baby with ease.



Each mother-baby pair also needs a record sheet to note daily observations, information about feeding and weight, and instructions for monitoring the baby.

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The ability to feed (to suck and swallow) is not an essential requirement. KMC can begin during tube-feeding.

Facilities and equipment required for KMC

KMC does not require special facilities, but simple arrangements can make the mother's stay more comfortable.

- The room should be equipped with comfortable beds and chairs for the mothers, if possible adjustable or with enough pillows to maintain an upright or semi-recumbent position for resting and sleeping
- Curtains can help to ensure privacy in a room with several beds
- The rooms should be kept warm for small babies (22-24°C)

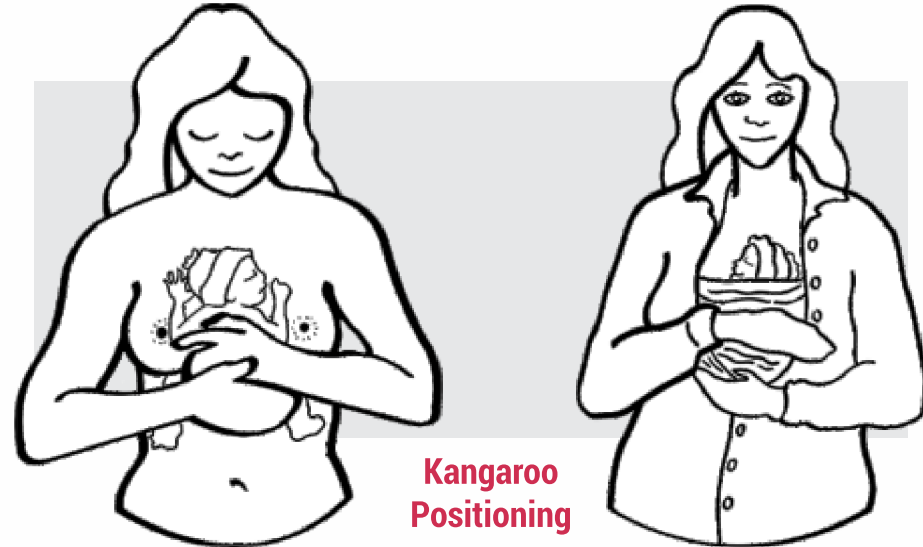


Initiating Kangaroo Mother Care session

When baby is ready for KMC, arrange with the mother a time that is convenient for her and for her baby.

- Before starting kangaroo care, make sure that the mother is willing and confident to provide kangaroo care
- KMC is not done immediately after feeding the baby
- The mother should be asked to wear clean, light and loose clothing. She should be advised to wash her hands thoroughly
- Make sure that the room is clean and warm and has complete privacy for the mother
- She should be explained the correct technique and precautions to be followed
- The first session is important and requires time, undivided attention and supervision by the staff or doctors

A The correct position



Correct positioning of the baby during KMC

Source: Kangaroo Mother Care: A practical guide, WHO

- Place the baby between the mother's breasts in an upright position, chest to chest
- Secure him with the KMC bag or binder
- The head should be turned to one side in a slightly extended position. This slightly extended head position keeps the airway open and allows eye-to-eye contact between the mother and the baby
- Avoid both forward flexion and hyperextension of the head
- The hips should be flexed and extended in a 'frog' position; the arms should also be flexed.
- Tie the straps of kangaroo bag or the binder such that the baby does not slide out. Make sure that the tight part of the cloth is over the baby's chest
- Baby's abdomen should not be constricted. This way baby has enough room for abdominal breathing

B Duration of KMC session:

KMC sessions should be of minimum one hour per day and can be done 3-4 times every day. Sessions that last less than 60 minutes should be avoided because frequent changes are too stressful for the baby.

C Monitoring during KMC session:

Babies receiving KMC should be monitored carefully especially during the initial stages. Nursing staff should make sure that baby's neck position is neither too flexed nor too extended, airway is clear, breathing is regular, color is pink and baby is maintaining temperature. Mother should be involved in observing the baby during KMC so that she herself can continue monitoring at home.

The following danger signs warn that KMC be discontinued

- The baby is having difficulty in breathing, chest is drawing in too much and there is excessive grunting
- Baby is either breathing too heavily or too slowly
- There is sudden change in the color of baby, cyanosis, etc
- There are frequent and long spells of apnea
- The baby is hypothermic
- The baby is sluggish, doesn't feed well, appears pale and has frequent episodes of large volumes of vomiting
- There are episodes of convulsion
- Baby is too icteric and requires extensive photo therapy

Before discharge from the hospital, Mothers should be counseled in detail about the care to be taken at home.

- Discuss in detail about the hygiene precautions, maintenance of temperature, feeding schedule and technique.
- All the queries and concerns about baby's feeding, massage technique, sponging or bathing, medications, supplements and vaccination schedule should also be explained in detail.
- Mothers should be advised about her follow up visits at the time of discharge itself.
- Explain the danger signs or emergency indications in the babies, which requires immediate attention. She should be provided with the contact details of the concerned doctors, lactation experts, follow-up clinics and emergency services.
- At the time of discharge, advice the mother to continue kangaroo care to her baby. Fathers and relatives can also provide kangaroo care at home. During follow up visits check the baby for any intolerance, proper weight gain, growth and feeding ability.

KMC should be practiced till the baby reaches term (gestational age around 40 weeks) or 2500g. Around that time the baby also outgrows the need for KMC. This is when it is safe to advise the mother to wean the baby gradually from KMC.

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Q1. Define KMC and its components.

Q2. What are the benefits of Kangaroo Mother Care for the baby?

- ☐ A. Regulates Temperature
- ☐ B. Stabilizes breathing
- ☐ C. Improves breastfeeding
- ☐ D. All of the above

Q3. Describe the correct position of baby during Kangaroo Mother Care (KMC).

Q4. What are the danger signs that indicates KMC should be discontinued?

- ☐ A. Baby is either breathing too heavily or too slowly
- ☐ B. The baby is hypothermic
- ☐ C. There are episodes of convulsion
- ☐ D. All of the above

Q5. What is the duration of a KMC session?

Notes

Notes



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