

ENTERAL FEEDING IN PREMATURE INFANTS

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➤ Human milk is the best nutrition for term and preterm infants.

➤ Early nutrition can improve both short and long term outcomes.

Human milk
provides a unique combination of:
proteins
lipids (most variable)
carbohydrates
minerals
vitamins
enzymes
living cells, S IgA ,lactoferin
pre and probiotics

Major advantages of breastfeeding for
preterm
infants:

The immunological properties



Mother and infant bonding,

and the improved neurobehavioral
performance

(Taurine for retina and brain)

Little success in breastfeeding has been
observed
among mothers of
Preterm Newborns
because :

physiological and neurological
immaturity,
muscle hypotonia and hyper reactivity to
environmental stimuli,

inappropriate suck/swallow/breathe
coordination

- ❖ Infants <34 weeks gestation ,as most do not yet have the ability to coordinate suck –swallow –breathe patterns.

The mothers
need to be encouraged and guided to
start

milk expression

as early as possible in order to stimulate
lactation.

careful hand washing,
selection of a calm place
gentle massage on all quadrants of the
breast

Obviously,
Raw and unprocessed breast milk, from
the mother to her infant, should be
consumed
immediately after collection,
so the singular properties of breast milk
remain unchanged and bacterial
proliferation is prevented.

An increase in the milk volume produced
or
a more stable milk production has been
observed among mother who use
the
kangaroo Mother care
(KMC)

Breastfeeding in the neonatal unit

Trophic or Minimal enteral feeding:

-Nonnutritive use of very small volumes of human milk (≤ 24 cc/kg/d):

- ✓ Improved levels of gut hormones
- ✓ Less feeding intolerance
- ✓ Earlier progression to full enteral feeding
- ✓ Improved weight gain
- ✓ Improved Ca and P retention
- ✓ Fewer days on PN
- ✓ No increase in NEC rate

Oropharyngeal Therapy with Mothers own Milk (OPT-MOM)

Readiness to Breastfeed:

- ☐ Signs of sucking (mothers finger)
- ☐ Signs of rooting
- ☐ Vital signs

Corrected gestational age is an unreliable marker for readiness to breastfeed.

Proper positioning

is important to the breastfeeding technique.

(Under arm ,Cross-cradle position)



Alert and hungry infant



Although Breast milk from the mother is the food of choice for preterm infants,

We consider the use of **fortified human milk** to be the most nutritionally optimal diet for preterm infants.(use **HMF** ,**FMS**, for **all VLBW**)

Contraindication for feeding:

- Abdominal distention , NEC, Ileus
- Asphyxia
- Exchange in 4 h ago
- Hypotension or severe hemodynamic instability
- Medical treatment for PDA

❑ Full enteral feeding is equal 150 -180cc/kg/d.

❑ Total energy requirements for growing premature infants is estimated 105-135 kcal/kg/d. (20 kcal/oz in human milk)

Feeding advancement:

- Rate of 15 -20 ml/kg/d in stable ELBW
- Rate of 30 -35 ml/ kg/d in stable neonates >1 kg or > 28 w

Abdominal circumference ,Gastric Residuals

For assessing growth and nutrient requirement:

➤ Use goals of:

15-20 g/kg/d weight gain (from 14- 21 d for infants <2 kg) ,20 -30 g/day for larger infants.

approximately 1cm/w in length

0.5 - 1 cm/w in head circumference

Intrauterine growth remains the gold standard for comparison.

GROWTH ATTAINMENT IN THE
NICU IS DIRECTLY LINKED TO
SHORT-TERM AND LONG-TERM
NEONATAL HEALTH OUTCOMES.



THANK YOU !

