Feeding of Healthy Newborn
Benefits of breast milk to the baby

- Breast milk and human colostrum are made for babies and is the best first food
- Easily digested and well absorbed
- Contains essential amino acids
- Rich in polyunsaturated essential fatty acids
- Better bioavailability of iron and calcium
Benefits of breast milk (contd.)

- Protects against infection
- Prevents allergies
- Better intelligence
- Promotes emotional bonding
- Less heart disease, diabetes and lymphoma
Protection against infection

1. Mother infected

2. WBC in mother’s body make antibodies to protect mother

3. Some WBCs go to breast and make antibodies there

4. Antibody to mother’s infection secreted in milk to protect baby

Teaching Aids: NNF
Benefits to mother

- Helps in involution of uterus
- Delays pregnancy
- Decreases mother’s workload, saves time and energy
- Lowers risk of breast and ovarian cancer
- Helps regain figure faster
Benefits to family

- Contributes to child survival
- Saves money
- Promotes family planning
- Environment friendly
Anatomy of breast

- Myoepithelial cells
- Epithelial cells
- Ducts
- Lactiferous sinus
- Nipple
- Areola
- Montgomery gland
- Supporting tissue and fat
- Alveoli

Teaching Aids: NNF
Physiology of lactation

- Hormonal secretions in the mother
  - Prolactin helps in production of milk
  - Oxytocin causes ejection of milk
- Reflexes in the baby – rooting, sucking & swallowing
Prolactin production

Enhanced by

- How early the baby is put to the breast
- How often and how long baby feeds at breast
- How well the baby is attached to the breast
Prolactin reflex

Hindered by

- Delayed initiation of breastfeeds
- Prelacteal feeds
- Making the baby wait for feeds
- Dummies, pacifiers, bottles
- Certain medication given to mothers
- Painful breast conditions
Prolactin “milk secretion” reflex

Enhancing factors

- Emptying of breast
- Sucking
- Expression of milk
- Night feeds

Hindering factors

- Bottle feeding, Incorrect positioning, Painful breast
- Sensory impulse from nipple

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Oxytocin “milk ejection” reflex

Oxytocin contracts myoepithelial cells

Sensory impulse from nipple to brain

Baby sucking

Teaching Aids: NNF
Oxytocin reflex

Stimulated by

• Thinks lovingly of baby
• Sound of the baby
• Sight of the baby
• CONFIDENCE

Inhibited by

• Worry
• Stress
• Pain
• Doubt
Feeding reflexes in the baby

Mother learns to position baby

Baby learns to take breast

Rooting reflex

Sucking reflex

Swallowing reflex

Teaching Aids: NNF
Composition of preterm and full term milk (g/dl)

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<th></th>
<th>Full Term</th>
<th>Preterm</th>
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<tr>
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</tr>
<tr>
<td>Protein</td>
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<td>2.0</td>
</tr>
<tr>
<td>Lactose</td>
<td>7.0</td>
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</tr>
</tbody>
</table>

Teaching Aids: NNF
How breast milk composition varies

- **Colostrum**
  - Fat
  - Protein
  - Lactose

- **Foremilk**
  - Fat
  - Protein
  - Lactose

- **Hindmilk**
  - Fat
  - Protein
  - Lactose

*Teaching Aids: NNF*
For successful breastfeeding

- A willing and motivated mother
- An active and sucking newborn
- A motivator who can bring both mother and newborn together (health professional or relative)
Successful breastfeeding

- Have a written breastfeeding policy
- Motivate mother from antenatal period
- Put to breast within 30 minutes of birth
- Promote rooming-in of mother and baby
- Promote frequent breastfeeding
Successful breastfeeding (contd.)

- Don’t give prelacteal feeds
- Don’t use bottle to feed
- Support mother in breastfeeding the baby
- Arrange mother craft classes in health facilities
- Treat breastfeeding problems early
- Exclusive breastfeeding till 6 months
- Addition of home-based semisolids after 6 months
Position of baby in relation to the mother

1. The baby’s whole body should face the mother and be close to her

2. The baby’s head and neck should be supported, in a straight line with his body, to face the breast

3. Baby’s abdomen should touch mother’s abdomen, to be as close as possible to his mother
Signs that a baby is attached well at the breast

1. The baby’s mouth is wide open
2. The baby’s chin touches the breast
3. The baby’s lower lip is curled outward
4. Usually the lower portion of the areola is not visible
Signs that a baby is attached well at the breast

- Baby's mouth is wide open
- Lower lip is curled outward
- Chin touches the breast
- Lower portion of the areola is not visible
Treatment of inverted nipple

Treatment should begin after birth

- Syringe suction method
- Manually stretch and roll the nipple between the thumb and finger several times a day
- Teach the mother to grasp the breast tissue so that areola forms a teat, and allows the baby to feed
Treatment of inverted nipple by syringe method

**STEP 1**
Cut along this line with blade

**STEP 2**
Insert the plunger from cut end

**STEP 3**
Mother gently pulls the plunger

Before the feeds 5-8 times a day

*Teaching Aids: NNF*
Sore nipple

Causes

- Incorrect attachment: Nipple suckling
- Frequent use of soap and water
- Candida (fungal) infection

Treatment

- Continue breastfeeding and correct the position & attachment
- Apply hind milk to the nipple after a breastfeed
- Expose the nipple to air between feeds
Breast engorgement

Causes

- Delayed and infrequent breastfeeds
- Incorrect latching of the baby

Treatment

- Give analgesics to relieve pain
- Apply warm packs locally
- Gently express milk prior to feed
- Put the baby frequently to the breast
Causes of “Not enough milk”

- Not breastfeeding often enough
- Too short or hurried breastfeeding
- Night feeds stopped early
- Poor suckling position
- Poor oxytocin reflex (anxiety, lack of confidence)
- Engorgement or mastitis
Management of “Not enough milk”

- Put baby to breast frequently
- Baby to be correctly attached to breast
- Build mother’s confidence
- Use galactogogues judiciously

Adequate weight gain and urine frequency 5-6 times a day are reliable signs of enough milk intake
Expressed breast milk

Indications
- Sick mother, local breast problems
- Preterm / sick baby
- Working mother

Storage
- Clean wide-mouthed container with tight lid
- At room temperature 8-10 hrs
- Refrigerator – 24 hours, Freezer - 20° C – for 3 months
Ten steps to successful breastfeeding

Every facility providing maternity services and care for newborn infants should

1. Have a written breastfeeding policy that is routinely communicated to all health care staff
2. Train all health care staff in skills necessary to implement this policy
3. Inform all pregnant women about the benefits and management of breastfeeding
Ten steps to successful breastfeeding (contd....)

4. Help mothers initiate breastfeeding within half hour of birth

5. Show mothers how to breastfeed, and how to maintain lactation even if they are separated from their infants

6. Give no food or drink, unless medically indicated

7. Practice rooming-in : allow mothers and infants to remain together 24 hrs a day
Ten steps to successful breastfeeding (contd....)

8. Encourage breastfeeding on demand
9. Give no artificial teats or pacifiers (also called dummies or soothers) to breastfeeding infants
10. Foster the establishment of breastfeeding support groups and refer mothers to them on discharge from the hospital.