BREAST FEEDING

What is the World Health Organisation definition of exclusive breast feeding?
In the first six months of life, only breast milk and no other liquids or solids except for drops or syrups consisting of vitamins, mineral supplements or medicines if medically indicated

Why is breastfeeding important?

Importance for baby

- Ideal composition biochemically / nutritionally
- Protects from infections – diarrhoea, otitis media, UTI
- Optimises neurodevelopment (more lactose than cow's milk)
- Better intelligence than formula-fed babies
- Protects from chronic diseases eg: diabetes (type 1 & 2), childhood cancers, obesity, inflammatory bowel disease, asthma and allergies
- Preterm – breastmilk reduces risk of sepsis, NEC

Importance for mother

- Reduces risk of hypercholesterolaemia, diabetes, hypertension, cardiovascular disease
- Breast and ovarian cancer are reduced
- Hip fractures and osteoporosis are reduced
- Faster return to pre-pregnancy weight
- Lactational amenorrhea – contraception (partial)
- Stops bleeding after birth of the baby (Oxytocin)
- Stabilizes endometriosis

Importance for family

- Improves bonding with baby
- No cost
- Convenient (no preparation)
  Fresh

- **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)**

- **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 "milk secretion" reflex
    - **Enhancing factors**
        - Early initiation of breastfeeds
        - Good attachment & effective suckling
        - Frequent feeds including night feeds
        - Emptying of breast

    - **Hindering factors**
        - Delay in initiation of breastfeeds, Pre-lacteal feeds, Bottle feeding, Incorrect positioning, Painful breast

Oxytocin "milk ejection" reflex

Oxytocin reflex stimulated by	**Oxytocin reflex inhibited by**
○ Thinking lovingly of baby ○ Sound of the baby ○ Sight of the baby ○ CONFIDENCE	▪ Worry ▪ Stress ▪ Pain ▪ Doubt

- **Reflexes in the baby – rooting, sucking & swallowing**

- **Whatever position the mother uses to breastfeed her baby, thefollowing points should apply:**

- **Key points of positioning – Mother:**
    - Make the mother sit in a comfortable and convenient position (she can feed in lying down position)
    - Ensure that she is relaxed and comfortable

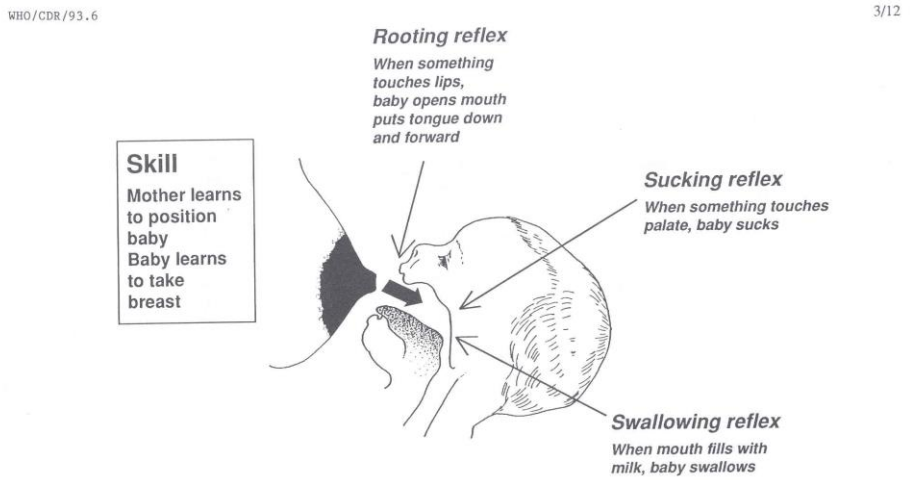
- **Key points of positioning – Baby:**
    - Baby's head and body are in a straight line
    - Baby's whole body is supported
    - Baby's face is close upto the breast

- **Key points of good attachment**
  - Baby's mouth is wide open
  - Baby's chin touches the breast
  - Baby's lower lip is curled outward
  - There is more areola visible above than below the baby's mouth

- **Causes of poor attachment**
  - Use of an artificial teat on a feeding bottle –before breastfeeding established
  - Inexperienced mother – first baby or previous baby bottle fed
  - Functional disability – small or weak baby, breast engorged, large, delay in first feed / skin-to-skin care
  - Lack of skilled support – less traditional help and community support, doctors, midwives, nurses not trained to help

- **Results of poor attachment**
  - Pain and damage to nipples – sore nipple and fissures
  - Breast milk not removed effectively - breast engorgement
  - Poor milk supply (make less) – baby unsatisfied, frustrated, refuse to suckle, wants to feed a lot, baby fails to gain weight

- **Effective suckling**
  - For an infant who shows signs of good attachment, the next step would be to assess suckling:
  - If the infant takes **several slow deep sucks followed by swallowing and then pauses**, then he/she is sucking effectively



Problems in breastfeeding

- **Problems in breast feeding : Inverted nipple**
  - Treatment should begin after birth.
  - Ensure early opportunity for breastfeeding andextra support in positioning and attachment.
  - 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.
  - Syringe suction method.

- **Problems in breastfeeding: Sore nipple**
  - Look for a cause:
    - Check the baby's attachment at the breast
    - Check the baby's position if the attachment is satisfactory
    - Examine the breasts – engorgement, fissures, candida
    - Ask if mother washes the breasts after each feed (frequent washing leads to sore nipple)
    - Check the baby's oral cavity for candida
    - If all of above are ok consider tongue tie in the baby as a probable cause

    - Sore nipple: management - Give appropriate treatment:Improve the baby's attachment and continue breastfeeding
    - Manage engorgement
    - Express breast milk and give to the baby if sucking is very painful
    - Treat candida
    - Build mother's confidence
    - Wash breasts only once a day; avoid using soap
    - Avoid medicated lotions and ointments
    - Gently apply hind milk onto nipple and areola after each feed

- **Breast engorgement**
  - **Causes**
    - Delayed and infrequent breastfeeds
    - Incorrect latching of the baby

Full breasts:	**Engorged breasts:**
• Occur 36/72 hours after birth. • Hot, heavy, may be hard • Milk flow not affected • Fever uncommon	▪ can occur at any time during breastfeeding ▪ Painful; oedematous ▪ Tight, especially nipple area ▪ Shiny ▪ May look red ▪ Milk NOT flowing ▪ Fever may occur ▪ May cause a decrease in milk supply if it happens often

- **Treatment**
  - Give analgesics to relieve pain
  - Apply cold packs locally; do NOT apply warm compresses
  - Put the baby frequently to the breast
  - Do NOT express and empty the breast fully; if very uncomfortable express just enough to minimise severe discomfort
  - If tightness around areola is preventing the baby from attaching express a small amount to soften the area

- **"Not enough milk":**
  - **"Not enough milk": causes**
    - **Mostly perceived rather than an actual inadequacy**
    - Not breastfeeding often enough
    - Too short or hurried breastfeeding
    - Night feeds stopped earlyand replaced by bottle feeds
    - Poor suckling position
    - Poor oxytocin reflex (anxiety, lack of confidence)
    - Engorgement or mastitis

  - **"Not enough milk": management**
    - Kangaroo mother care
    - Put baby to breast frequently
    - Baby to be correctly attached to breast
    - Build mother's confidence
    - Back massage and relaxation can help
    - Use galactogogues (metaclopropamide) judiciously

- ***Adequate weight gain (or acceptable weight loss) and urine frequency ≥6 times a day (after day 5) are reliable signs of enough milk intake***

- **Adequacy of breastfeeding**

  Breastfeeding is considered adequate if the baby
  - Goes to sleep for about 2hrs after each feed
  - Passes urine ≥6times in 24 hrs
  - Gains weight at 10-15 g/kg/day
  - Crosses birth weight by 2 weeks

Indications for alternative feeding methods

Baby	Mother
○ Hypoglycaemia ○ Not sucking effectively (e.g. preterm, ill, cleft lip/palate)	Is ill Has flat/inverted nipple or engorged breast

- **Expression of breast milk**
  - Hold a wide necked, clean container under the mother's nipple and areola
  - Place her thumb and first finger behind the nipple (at least 4 cms from the tip of the nipple)
  - Apply pressure inward toward the chest wall
  - Compress and release the breast between finger and thumb using a rolling motion rather than sliding the fingers on the breast
  - Compress and release all the way around the breast,keepingthe fingers the same distance from the nipple
  - Express one breast until the milk just drips, then express the other breast until the milk just drips.
  - Alternate between breasts 5 or 6 times, for at least 20 to 30 minutes
  - Stop expressing when the milk no longer flows but drips from the start

Back massage

- Mother sits down, leans forward, folds her arms on a table in front of her, rests her head on her arms
- Her breasts hang loose and unclothed
- The helper works down both sides of the spine at the same time from the neck to just below the shoulder blades
- She uses her closed fist with her thumbs pointing forwards
- She presses firmly making small slow circular movements with her thumbs and continues for 2-3 min

Storing expressed breastmilk

1. Room temperature : 4 hours
2. Refrigerator : 72 hours (5°C or lower)
3. Freezer : 2 weeks (-15^{0}C) to 3 months (-18^{0}C)

Options available:

- Cup
- Spoon
- Gastric tube

Cup Feeding

- Cup and spoon are easy to clean with soap and warm water
- An ideal cup can hold 50 to 90 mL of milk
- It can be glass or plastic and easily washable
- Edge should be rounded and smooth
- A cup with a lid is useful for storing expressed breast milk
- Variations of cups with lips and spouts can easily be found
- They should be used with extreme caution
- It is DANGEROUS to POUR milk into a baby's mouth

Cup Feeding Steps

- Put a measured amount of milk in the cup (do not fill more than 2/3 at a time)
- Infant should be awake and held sitting semi-upright on caregiver's lap with the care giver's arm supporting the baby's shoulders and neck
- Put a small cloth on his or her chest to catch drips of milk
- Wrap the carer's arm gently around the baby's middle to keep his/her own hands down and away from the cup
- Hold the cup so that it just touches the baby's mouth. It should reach the corners of her/his mouth and rest lightly on her/his bottom lip
- Tip the cup so that the milk reaches the baby's upper lip
- Do NOTpour the milk into the infant's mouth
- Allow the infant to take the milk himself (upon smelling the breastmilk, the baby becomes alert, opens its mouth, and puts its tongue into the milk to start the feed)
- Feed the infant slowly; some milk may spill from the infant's mouth
- When the infant has had enough, he or she will close his or her mouth and will not take any more. Do not force-feed the infant.

Pouring the milk into baby's mouth can cause aspiration

Advantages of cup feeding

- Simple equipment ; easy to clean
- Baby can take what it needs in its own time
- Mother can do it herself
- Good eye contact between mother and baby

Measuring the correct amount of milk

To measure 30 mL

- Use a desert spoon which holds approx. 10 mL
- Take 3 spoonful of milk
- Put a mark on the outside of the cup to guide the mother as to how much milk is needed each time
- ***If the baby does not take the required amount: feed more often or for longer***

Spoon feeding

- Advantages
  - Useful for collecting small amounts of colostrum in the first days of life
  - Useful in a baby with cleft lip/palate
- Disadvantages
  - Slow method of feeding
  - Often difficult to manage a spoon and a milk container while holding the infant semi-upright

Feeding milk by gastric tube

- Insert a gastric tube
- Confirm tube position before feeding
- Mother to hold the baby or participate in feeding if possible
- Determine the required volume of feed
- Remove the plunger of a sterile syringe& connect the barrel to the end of the tube
- Pour the milk into the syringe with the tip of the syringe pointed downwards
- Hold the syringe 5-10cm above the baby
- Allow the milk to run down by gravity
- After feeding, remove the syringe and cap the tube

Ten steps to successful breastfeeding

1. Every facility providing maternity services and care for newborn infants should 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

4. Help mothers initiate breastfeeding within one 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

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.

The Baby Friendly Hospital Initiative (BFHI) is a global campaign by the World Health Organisation (WHO) and the United Nations Children's Fund (UNICEF). The aim of this campaign is to achieve best practice in supporting breast feeding within maternity services by implementing the Ten Steps to Successful Breast feeding, which were first published in a joint WHO/UNICEF statement in 1989 "Protecting, promoting and supporting breast feeding: the special role of maternity services."

In order to obtain Baby Friendly status,

- full implementation of the Ten Steps is necessary plus either
- a minimum breast feeding rate of 75% on discharge from hospital (Global award) or a commitment to strive for a minimum breast feeding rate of 75% on discharge