

## Breast Feeding and Breast Milk Breast Milk Expression

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Proper nutrition is essential for optimal growth and development, especially in the first few months of life



### Nursing Assistance

- Teach parents how to recognize signs of hunger in a newborn, including restlessness, tense body posture, smacking lips and tongue thrusting
- Teach mother the right technique of feeding
- Teach the women to continue breast-feeding after they return to work
- Teach the mothers right way how to carry about breast

### Assessment The Newborn Nutrition

- Sleeps between feedings
- Loses no more than 10 % of birth weight
- Good skin turgor
- Voids six to eight times a day; two to three bowel movements

### Nutritional Allowances For A Newborn

- Infant up to 2 months of age requires 110 – 120 calories per kilogram
- From 2 month till 1 year is 100 kcal/kg per day
- The infant who cries frequently and more active needs more calories than calm one

### Protein, Fat and Carbohydrate



## Protein

- Protein is necessary for the formation of new cells, has a high requirement during newborn and infancy
- Requirement during first 2 months is 2.2 g per kilogram of body weight
- The cow's milk not recommended for infant for the reason that it contains two times more protein that can overwhelmed the kidneys of infant . For the same reason yogurt and cheese not advising before 9 month
- Cow milk's protein calls casein, which one more hard to digest
- Humans milk's protein – lactalbumin

## Fat and Carbohydrate

- Linoleic acid is essential fatty acid necessary for growth and skin integrity in infants
- Lactose the most easily digested of carbohydrates, also improves calcium absorption

## Fluid



## Fluid

- Because metabolic rate of the newborn is so high, there body requires more water
- Newborn's body surface area is large in relation to body mass – evaporation more high
- Extracellular fluid adult – 20 %, newborn – 30-35 %
- newborn needs 150 – 200 ml\kg fluid intake every 24 hours

## Iron and Vitamins

- Newborn whom mother during pregnancy used iron as usually does not need addition of iron during first 3 month
- Newborn who is on breast- feeding can need artificial iron as well
- As usually vitamins A,C and D giving to the newborn
- If the newborn is not taking sunlight, for mother can be prescribed 400 U vit D in a day

## Breast-Feeding

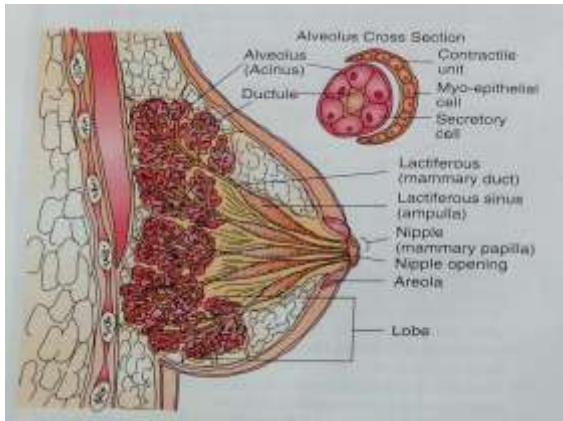


## Breast Milk Production



## Breast Milk Production

- Breast milk is formed in the acinar or alveolar cells of the mammary glands
- With the delivery of the placenta the level of progesterone falling, which stimulating the production of prolactin of anterior pituitary gland
- When the infant sucks at a breast, nerve impulses travel from the nipple to the hypothalamus to stimulate the production of prolactin



## Colostrum



## Colostrum

- Colostrum - a thin watery yellow fluid composed of protein, sugar, fat, water, minerals, vitamins and maternal antibodies
- Starting in the fourth month of pregnancy and finishing 2-4 days after birth
- It is high on protein and low on fat and sugar, which makes it easily digest

## Breast milk

- Breast milk flows from the alveolar cells to small tubules (lactiferous sinuses) which located behind the nipple
- This forming milk – fore milk
- When the baby starting to suck the nipple, the oxytocin also produced from the posterior pituitary gland, which forcing milk forward through the nipples (let – down reflex)
- Let – down reflex pushing the fore milk to baby and starting producing hind milk, which more rich of fat
- The let – down reflex can be started with baby crying or some emotional thinking

## Breast milk



## Contraindicated for breast feeding

Some cases called for individual planning:

- Mothers who had previous breast – reduction surgery
- Mother and infant who are being treated for active tuberculosis
- Mother and infant who are being treated for active hepatitis or are positive for HIV

## False

- Some women believing that breast- feeding strong contraceptive method – that's not (from 4 week after delivery 50 % of woman starting to ovulate )
- Some women believe that breast-feeding will help to loose the weight – that's not true (during breast feeding woman need high calorie diet)
- Some women believe that if they will start to breast feed , they will be "tight" to baby every 3-4 hours – that's not true, woman can leave the bottle with milk or formula to father or caregiver

## Advantages from the breast feeding to the baby



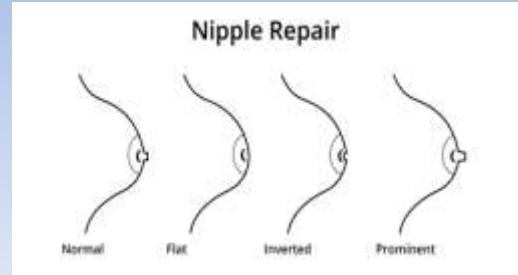
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- Breast milk contains secretory immunoglobulin A (IgA) (Binds large molecules of foreign proteins, including viruses and bacteria, keeping them to be absorbed from gastrointestinal tract)
- Lactoferrin is an iron-binding protein
- Lysozyme in breast milk destroyed bacteria
- Macrophages (producing interferon)
- Bifidus factor

Some father feeling jealous when his wife is breast feeding child



### Nipples types



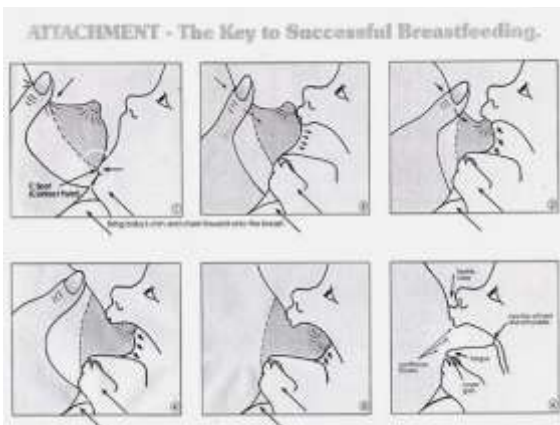
### Beginning Breast-Feeding



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Breast-feeding begin as soon after birth, its stimulating release of oxytocin, which stimulating let-down effect and contraction of the uterus.

Some women will want at that one moment help from the nurse, the nurse will help to take the baby a nipple and control that the newborn will take all areola into the mouth





- The woman as usually feeling emptiness or fullness of her breast
- If the infant did not suck all milk on the previous time, always next time woman need to put the infant on the side which half empty
- Never give the newborn bottle with milk at first 6 weeks (if it s not necessary), because the bottle much more easy to suck, the infant can easily to do not continue the breastfeeding

### Prolonged Jaundice in breast-fed infants



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- Jaundice occurs in 15 % infants
- Pregnanediol in breast milk depresses glucuronyl transverase (emzyme that converts indirect bilirubin to the direct)
- To prevent hyperbilirubinemia in the infants woman need to breast feed frequently in the immediate birth period, coz colostrum helping promote passage of meconium and bile
- Newborn who discharged early need to be observed for jaundice at home
- If serum bilirubin level became high it need to require discontinuation of breast-feeding

### Breastfeeding

- Brushing the infant's cheek with a breast nipple stimulates a newborn's rooting reflex
- **Don t** try to initiate a rooting reflex by **pressing** baby's face against the mother's breast
- A mothers who have large, the breast's tissue can press against the nose
- When the mother want interrupt the feeding process teach her **not to pull** baby from the breast, she can insert a finger in the corner of the infant's mouth or pull down the infant's chin to release suction

### Breastfeeding

- The newborn could fall asleep during the first feeding, it's necessary to awake the infant. To prevent this mother need to full awake infant before the feeding process
- Changing the position of the baby during the feeding will help to prevent sleeping of the infant
- Rubbing the backs or arms of the infant, ticking the bottom of a baby's feet will also be helpful to asleep the newborn
- Some infants seem to swallow little air when they breast-feed, buble (burp) is helpful for this



## Breastfeeding of multiply infants

- You should make sure the women that they can easily produce enough milk for multiply pregnancy
- Mothers who feeding multiply infants needs to drink enough fluid and enough sleeping time



## Problems with nipples

- Feeling of breast distention, tenderness, even heat in the breast can occur during the breastfeeding period
- On the third – fours day after birth when breast milk formes, women can see some redness, tense and shiny in the breast (engorgement) . To remove it will help more often sucking. Sometimes the breast so tens, the infant can take the nipple good, the warm packs and massage will be helpful, manual expression of the milk can be occur
- Make sure that the woman understand good that engorgement it s not the inflammation and normally it will go for the 24 hours

## Nipples sore

Painful nipples result from the strong sucking action of a newborn. The following factors:

- Improper positioning of an infant (failure to grasp the areola as well as the nipple)
- Forcefully pulling an infant from the breast
- Allowing an infant to suck too long at a breast after the breast is emptied
- Permitting a nipple to remain wet from leaking milk

## Nipples crack or fissure

- Advise the mothers to change of the position's of the baby every feeding
- Advise to expose the nipples to air by leaving her bra unsnapped for 10 to 15 minutes after feeding
- Applying the vit E lotion after every air exposure
- Advise not to use a hand pump to the sore nipples (electrical pumps as usually can be used)

## How to understand enough or not baby eat?

- If infant looking satisfied after feeding – this means enough milk
- Baby voids six to eight times per day after the first week
- Loosing not more than 10 % of birth weight in first 24 hours

## All drugs going with a milk to the infant

The breast feeding woman should take no drug unless prescribed



## How to keep the breast milk?



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- Bottles used for storage should be sterilized in a dishwasher
- Then breast milk can be refrigerated for 24 hours, frozen for 30 days or placed in a deep freezer for 6 months







### How to make hot the bottle milk?

- Warn the mother if she will warming milk in microwave the milk in center can be hotter then on the sides
- Shaking bottle well after the microwaving
- Better to heat the milk in a pan with hot water, but not boil it
- The plastic bags should always be trough out after one using

**Thank you for your attention**

