

Nutritional importance and benefits of breast feeding:

• Human milk is superior to another types of commercial milk.

The composition of human milk is not constant but changes during feeding according to the time and during the course of lactation. The total volume of maternal milk production and infant milk intake is highly variable depended: 100 ml, 300 ml, 800 ml from frequency and effectiveness of sucking of baby.

- Protein component of human milk differs by quantity and quality.
- In cow's milk casein is predominant.

The spectrum of amino acids differs in human and cow's milk. In human predominant cysteine, taurine which are so important for development of CNS.

- Chemical properties and characteristics of human protein don't provoke allergy and help digestion.
- In compare with cow's milk, cow's milk provoke gastroenteropathy, allergy and in some cases intestinal hemorrhage. Human milk assures all quantity of proteins infant needs during the first 6 months of life.

Fats in human milk breast.

• Milk fat represents around 4 - 4,5 g / 100ml. The concentration of fat depends on mother's alimentation. Breast milk is rich in poly- unsaturated acids which are important for development of nervous system. Fat is mostly made up from triglycerides, about 98 – 99 %. For quantity in breast milk is not constant but may change during the day.

Carbohydrates

• The main carbohydrate in human milk is lactose that facilitates activity of intestinal physiological bacterial flora. Human milk contains a higher concentration of carbohydrate, it also has a small quantity of galactose, fructose and oligosaccharide.

Cow's milk has a small quantity of carbohydrates and the lactose is A-Type , in human milk is B-Type .

Protection and immune factors of human milk

- Ig-A protects against E. coli , klebsiella , pneumonia , salmonella , shigella , streptococci , candida , cholera .
- Antivirus antibody –cytomegalovirus, herpes.
- Lyzosome antibacterial enzymes .
- Interferon antiviral agent .

Protection role of human milk:

Reduced incidence of diarrhea and duration of diarrhea.

Protects against respiratory infections.

Protects against otitis media.

Protect against necrotic enterocolitis in the neonatal period.

Protect against bacteriemia, meningitis, urinary tract infections.

Reduce risk of inflammatory bowel syndrome Reduce risk of sudden infants death syndrome

Contra indications of Breast Feeding:

For mother:

- Absolute HIV infection
- Temporary severe infections pathology in acute phase, TBC, somatic diseases, in decompensation phase, cancer in mother and taking of cytostatics
 the physical disease in mothers diabetes with intake of oral antidiabetes.
- For Baby:
- Absolute metabolism disorders for example : galactosemia , phenylketonuria .
- Temporary severe affectation of newborn and sucking baby that required assistant respiratory and parenteral feeding.

Methods for evaluation of child adequate nutrition

1) Signs of adequate breast feeding:

- a- satisfactory state of child between feeding time
- b- weight gaining 18-30 gr per day or 125-210 gr per week.
- c- physiological defecation usually after each feeding.
- d- swallowing heard during sucking.

2) Hungry symptoms:

- a- no increase in weight.
- b- rare urination.
- c- changes in stool, constipation or diarrhea.
- d- baby sucking his fingers .
- e- exciting child.

3) Signs indicated in adequate weight gaining of the baby in time:

- a- < 18 gr increase in weight.
- b- sleeps a lot.
- c- reduced urination.
- d- able to suck continuously.

Nutrition efficiency

Nutrition efficiency is evaluated according to the indices :

- 1. general state of baby .
 - 2. Physical development (weight and height) .
 - 3. Neurological development.
 - 4.morbidity level evaluation (how frequent diarrhea or viral

infection ...).

5. Laboratory analysis, general blood test, urine analysis.

Advantages of breast feeding

Advantages to the baby:

Reduced risk of developing:

- 1- Gastrointestinal illness and astroenteritis in particular .
- 2- Middle ear infection.
- 3- Resp. system infection.
- 4- Urinary tract infection.
- 5- Insulin dependent diabetes .
- 6- Allergies.

Advantages to the mother:

Reduced risk of:

- 1- Breast cancer.
- 2- Some forms of uterine cancer.

Social gains:

- 1- Ready availability for feeding the baby.
- 2- Unique contact between mother and baby.
- 3- May help mother to lose weight naturally

Teach the correct positioning and attachment for breast feeding Show the mother how to hold the infant:

- with infant's head and body straight.
- facing her breast, with infants nose opposite her nipple.
- with infant's body close to her body.
- supporting infant's whole body, not just neck and shoulders.

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