

# Child Health Care – Breast Feeding

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*Lecture - 9*

# Learning Objectives

By the end of this lecture the students will be able :

- 1- To explain types of feeding including breast feeding & artificial feeding
- 2- To mention the advantages of breast feeding & the principles of artificial feeding.
- 3-To define the term Growth & Development.
- 4- To describe the determinants of Growth & Development

# Feeding of Child

**Breast Feeding** : Under any circumstances breast milk is the ideal food for the infant. No other food is required by the baby until 6-months after birth. A child who is breast-fed has greater chances of survival than a child artificially fed. Prolonged breast-feeding does protect the infant from early malnutrition and some infections. The data suggest that infant mortality rates in developing countries are 5-10 times higher among children who have not been breast-fed or who have been breast-fed for less than 6 months.

Among the advantages of breast milk are the following:

**a-it is safe**, clean, hygienic, cheap & available to the infant at correct temperature.

**b-it fully meets** the nutritional requirements of infant in the first few months of life.

**c-it contain antimicrobial factors** such as macrophages, lymphocytes, secretory IgA, anti-streptococcal factors, lysozyme and lactoferrin which provide considerable protection not only against diarrheal diseases and necrotizing enterocolitis, but also against respiratory infections in the first months of life.

**d-it is easily digested** and utilized by both the normal and premature babies.

**e-it promotes “bonding “**between the mother and infant

**f-sucking a good for the baby,** it helps in the development of jaw and teeth

**g-it protect babies** from the obesity

**h-it provides several biochemical** advantages such as prevention of neonatal hypocalcemia and hypomagnesaemia

**j-it helps parents to space** their children by prolonging the period of infertility.

- It is neither necessary nor desirable to train a baby to “feed by the clock “.
- It should be explained to the mother that interval between feeds are necessary for herself and the baby. The interval may be between 1 – 4 hours according to the baby’s needs, size, strength of sucking and mother’s milk supply.

# Artificial feeding

The main **indications** for artificial feeding are failure of breast milk, prolonged illness, or death of the mother.

## **Principle of artificial feeding:**

1-infants require an average of 100 kcal of energy per kg of body weight per day i.e., about 150 ml of milk per kg body weight each day.

2-the estimated protein requirement is about 2g/kg of body weight during the first 6 months, it declines to about 1.5 g/kg by the end of one year.

3-the carbohydrate requirement is about 10 g/kg of body weight daily.

4-after 4 - months of age, undiluted boiled and cooled milk should be given.

5-Infants need feeding at frequent interval about 6-8 times a day, older babies 5- time a day.

6-during illness (e.g., fever) the calorie need is increased, and it should be met.



# Types of artificial feeding

## a-Dried milk:

The safest milk is dried whole milk which is prepared for infant feeding. It is fortified with vitamins, it is free of bacteria, but it is expensive.

## b-Cow's milk:

A cheaper alternative and widely used for infant feeding, is well within the reach of many families

Artificial feeding is a hazardous procedure in poor homes because of the dangers of contamination and over – dilution of the feed.

# Growth and Development

## Definition

The term growth refers to increase in the physical size of the body, and development to increase in skills and functions. Growth and development are considered together because the child grows and develops. both include physical and intellectual, emotional and social aspects.

Normal growth and development take place only if there is optimal nutrition, freedom from infections and if there is freedom from adverse genetic and environmental influences.

MCH care is concerned with the process of growth and development which is the foundation of human life.

# Determinants of growth and development

- 1. Genetic inheritance:** especially height & weight, mental and social development, and personality.
- 2. Nutrition:** retardation of growth and development is indicator of under-nutrition. when the diet improves the child begin to grow in height & weight.
- 3. Age:** growth rate maximum during foetal life, during the first year of life & then during puberty. at other period the growth is slower.

**4-Sex:** at about age of 10 – 11 years, females children show a sudden increase in height and weight correspond to puberty. In male children the growth occurs a little latter, i.e., between 12- 13 years.

**5-Physical surrounding:** sunshine, good housing, lighting and ventilation have their effect on growth & development.

**6-Psychological factors:** love, tender care, emotional and proper child parent relationship do affect the social & intellectual development of children.

**7-Infections & Parasitosis:** certain infections of the mother during pregnancy (e.g., rubella, syphilis) affect intra-uterine growth of the foetus. Infections after birth (e.g.) diarrhea, measles) slow down growth and development especially among malnourished child.

**8-Economic factors:** the standard of living of the family is an important factor. children from well to do families have better height and weight as better nutrition and level of living.

as birth order, birth space, birth weight, single **9- Other factors:** or twin pregnancy, education of the parents etc.

***Thank You***

