BREAST MILK COMPOSITION



 Breast milk contains all the nutrients babies need for proper growth and development, including:

- Water
- Protein
- > Fat: including Essential Fatty Acids
- Carbohydrates: mainly Lactose
- Minerals
- Vitamins
- Immune-supporting components, e.g Immunoglobulins, Oligosaccharides, Growth Factors, Enzymes and Hormones



Some immune-supporting components in breast milk



Breast milk, especially colostrum (the first milk), is an excellent source of numerous immune- supporting components that help to enhance your baby's natural defenses and promote maturation of her immune system. You should therefore endeavour to breastfeed your baby for the first 6 months or longer.

Su		-	_

Function

Immunoglobulins IgA, IgG, IgM, IgD, IgE Target and destroy specific infectious agents that are most likely to harm the baby, while preserving the beneficial bacteria in the baby's gut

Perbiotics (oligosaccharides) Serve as food to promote the growth of the beneficial bacteria in the baby's gut. Adhere to bacteria & viruses to prevent them from attaching to the cell walls of the baby's gut

Lactoferrin

Binds iron and makes it unavailable to most bacteria

B12-binding protein

Binds vitamin B12 & makes it unavailable to most bacteria



IMPORTANT INFORMATION

Breast milk is the best food for babies as it is the sole source of nutrition for the first 6 months of life and is recommended to be continued until 2 years, with introduction to appropriate complementary foods after 6 months of age.

A. Following are the details of advantages, as also nutritional superiority of breast-feeding:

- i) Immediately after delivery, breast milk is yellowish and sticky. This milk is called as Colostrum, which is secreted during the first week of delivery. Colostrum is more nutritious than that of mature milk because it contains more protein, more anti-infective properties which are of great importance for the infant's defence against dangerous neo-natal infections. It also contains higher level of Vitamin 'A';
- ii) Breast Milk
 - a) Is a complete and balanced food that provides all the nutrients needed by the infant (for the first six months of life);
 - b) Has anti-infective properties that protect the infants from infection the early months;
 - c) Is always available;
 - d) Needs no utensils or water (which might carry germs) or fuel its preparations;
- iii) Breast-feeding is much cheaper than feeding infant milk substitutes as the cost of the extra food needed by the mother is negligible compared to the cost of feeding infant milk substitutes;
- iv) Mothers who breast-feed usually have longer periods of infertility after child birth than non-lactators;

B. Details of management of breast-feeding, are as under:

- i) Breast-feeding
 - a) Immediately after delivery enables the contraction of the womb and helps the mother to regain her figure quickly;
 - b) Is successful when the infant suckles frequently and the mother wanting to breast-feed is confident in her ability to do so;
- ii) In order to promote and support breast-feeding the mother's natural desire to breast-feed should always be encouraged by giving, where needed, practical advise and making sure that she has the support of her relatives:
- **iii)** Adequate care for the breast and nipples should be taken during pregnancy;
- iv) It is also necessary to put the infant to the breast as soon as possible after delivery;
- v) Let the mother and the infant stay together after the delivery, the mother and her infant should be allowed to stay together (in the hospital, this is called "rooming-in");
- **vi)** Give the infant Colostrum as it is rich in many nutrients and its anti-infective factors protect the infants from infections during the few days of its birth;
- vii) The practise of discarding Colostrum and giving sugar water, honey water, butter or other concoctions instead of Colostrum should be very strongly discouraged;
- viii) Let the infants suckle on demand;
- ix) Every effort should be made to breast-feed the infants whenever they cry;
- **x)** Mother should keep her body and clothes and that of the infant always neat and clean,

