



## Colostrum

Naveenraj. A

Department of Microbiology, V.H.N.Senthikumara Nadar College (Autonomous), Virudhunagar, India.

Corresponding Author Email: [rajn36903@gamil.com](mailto:rajn36903@gamil.com)

### Introduction

For the first few days after the baby's birth, mammary glands make colostrum, which is nutrient rich "Pre-milk". For majority women, it is thick and yellowish in colour. For some women, it is thin and watery. "Colostrum" is also known as Liquid Gold. It has many benefits including boost infant's immune system.

The Latin term for breast is "Mammae". It developed from the infant's cry, "Mamma" in seeking the breasts. Breast milk is sometimes referred as "White Blood", because it considered similar to unstructured living tissue, such as blood and is capable of transporting nutrients from mother to infant.

Breast size, for instances, is a poor predictor of lactation capability. Infant's appetite that determines milk yield, rather than the mother's capacity to produce milk. Breastfed children may be more intelligent than children no breastfed because breastmilk enhance the brain development of infant.

### Nutrient content

Compared with normal milk, colostrum is richer in protein and minerals and lower in carbohydrates, fat and some vitamins. The pH of colostrum milk is 7.45; it falls to a low of 7.0 during the second week of the lactation. Small amount of colostrum averaging about 37 ml are yielded in the first 24 hours postpartum.

The caloric content density of human milk is generally considered to be 65 kcal/dl. The total fat content of breast milk ranges from 30-50 g/L. Lactose concentration is relatively constant [7.0 gm/dl] in mature milk. The percentage of protein in Colostrum is greater than mature breast milk.

The amount of vitamins and micro nutrients in milk vary from one mother to another mother because of diet and genetic differences. Human colostrum is particularly richer in

Vitamin E. It contains Vitamin A, D, E, K, B12, B6. Magnesium is highest concentration in human milk in first few days. Zinc is eight times abundant in human colostrum as in mature milk. Human milk have only a small amount of Iron [0.5-1.0 mg/L], Calcium.

### Involving Hormones during Lactation

During pregnancy lactation is inhibited by high level of Progesterone. Prolactin is essential for both initiating and maintaining the milk production. Prolactin which is secreted by the anterior Pituitary glands. Milk Prolactin levels are the same between the left and right breasts and are highest in early morning. Oxytocin plays a major role in the continuance of lactation. Oxytocin causes the “Milk – ejection reflex”.

### How to Increase Breast milk Production?

You don't need to eat certain food to make more milk. Just eat a balanced diet that includes a variety of vegetables, fruits, grains, protein and a little bit of fat. Some researchers said that garlic, onion and mint make breast milk taste different, so baby may suckle more and Milk also increased.

### Some drugs can affect your Breastfeeding

Avoid drinking alcohol and smoke cigarettes. If mother drunken, she should feed his infant after 2 hours. In traditional medical, after the first 40 day, starts with mutton liver. Its full of iron and minerals like Zinc, Potassium, Phosphorus and Calcium which are required for a women's body after baby delivery. It is also rich in Vitamin B12 and A.

### Donor Milk Banking

Donor Milk Banking is the collection, processing, storage and dispensing on prescription of human milk that is donated a healthy nursing mother who have an overabundance of milk for their own Infants. Collected milk is pasteurized and donor milk banks operated within standardized guidelines to ensure a safe product.

The first human milk bank open in Vienna, Austria on 1909. Mothers in China have sold excess breast milk in online. India's first human milk bank was established in 1989 at Sion Hospital. India has now nearly 80 milk banks and operational as per the National Guidelines on Lactation Management center in Public Health Facilities.

### Advantages to Mother

- Baby's suckling helps shrinks mother's uterus to pre-pregnancy size after child birth.

- Breastfeeding reduces a mother's risk of developing Ovarian cancer.
- Sometimes Breastfeeding stop the Menstrual cycle for 6 months after the baby delivery.

### Awareness

August first week [1-7] is celebrated as National Breastfeeding Month. It was Announced by World Alliance for Breastfeeding Action [WABA]. To know the importance of Breastfeeding. World Health Organization [WHO] and United Nations Children's Fund [UNICEF] recommends that mother should provide breast milk to their infants within first hour of infant's birth to first six months of life. Some women think that breastfed will affect their natural figure and beauty. So, they did breastfeed to their infants. It will make a major problem to their infants. Infants will easily be affected by diseases.

Women Should know how to breastfeed their baby. While laying down is perfectly safe for infants. Women must take attention in this matter. TamilNadu Government sets up more than 300 separate room for mothers to breastfed their infants at bus terminals in 2014.

### Conclusion

A newborn infant has only three demands. They are warmth in the arms of their mother, milk from her breasts and safety in the knowledge of her presence. Breastfeeding satisfies all of these. Every Women has fulfilled her life by her baby. All women think that her infant live long without disease. Breastfeeding is primary basement for that. So, every woman should know the importance of breastfeeding.

### Reference

Jan Riordan, Breastfeeding and Human Lactation (Third edition), Jones and Bartlett Publishers, 2005.