

## THE TRADITIONAL CONCEPT OF BREASTFEEDING (STANYA): A CLASSICAL AND CONTEMPORARY REVIEW

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### ABSTRACT

Breastfeeding is globally taken as an optimal source of nutrition for infants, providing vital nutrients and immune protection. In *Ayurveda* *Stanya* is indicated the *Upadhatu* of *Rasa* and defines the importance of *Stanya* (Breast milk) as primary diet for growth and development of infants, months, with extension up to 1 year or more. Even during the Vedic Period, breast milk was considered to be a noble meal for newborns. In *Rigveda* our *Acharyas* suggests breastfeeding after delivery with reciting *Mantras*. Under the topic of *jatakarma*, our *Acharyas* explains the importance of breastfeeding. The World Health Organization (WHO) suggests exclusive breastfeeding for the first six months of life, after which infants should receive nutritionally adequate and safe complementary foods while breastfeeding continues for up to two years of age. The American Academy of Pediatrics (AAP) suggests exclusive breastfeeding up to first six months of life. Afterwards, breastfeeding should continue for at least the first year of

life and beyond, for as long as mutually desired by the mother and child. The nutritional requirements changes from childhood through age. Infant mortality becomes larger in developing countries, such as India, due to absence of proper nourishment for children. As a result, it is difficult to provide appropriate nourishment to children.

**KEYWORDS:** *Stanya*, Breast feeding, Breast milk.

## INTRODUCTION

Breast milk is an important source of nourishment and immunity for the child. It is a natural method of nourishing an infant. Modern science has states the composition of various animal milks and confirms that human breast milk is the most appropriate and digestible source of nourishment for new-born. Breastfeeding promotes close physical and emotional attachment between the mother and child, leading to better parent-child relationship. Breast milk is pure, uncontaminated, and contains multiple anti-infective agents that protect the baby from infections. It also promotes brain development and intelligence. The World Health Organization (WHO) celebrates breastfeeding week every year from 1<sup>st</sup> August to 7<sup>th</sup> August.

*Ayurveda* highlights the importance of *Stanya* (Mother's milk) over any other feeding alternatives. It considers mother's milk as *Amruta* (Nectar) or *Piyusha*. *Ayurveda* also describes the concept of vitiated breast milk and its effects on both infant and mother. As per *Ayurveda's* *tridoṣa* theory (*Vata*, *Pitta* and *Kapha*) consumption of inadequate food by mother and participation in unhealthy activities can lead to the vitiation of *doṣhas*. These imbalances can then affect the quality of her milk. Thus, this review article focuses on the *Ayurvedic* and contemporary concept of *Stanya*, its formation and significance.

## AIM AND OBJECTIVE

To understand the traditional concept of Breast feeding (*Stanya*) in *Ayurveda* and Modern medical sciences.

## MATERIAL AND METHODS

This review article is compiled using a variety of *Ayurvedic* classics literature and modern medical sciences. Materials on *stanya*, its formation, origin, treatment and other relevant topics were gathered, examined to get a complete information of the concept of *Stanya* in connection to breastfeeding.

### *Stanya* (Breast feeding) as per *ayurveda*

#### **Etymological derivation of *stanya***

The word *Stanya* is derived from the root word "*stan*" with suffix having "*an*" which is linked with the thorax reason of women. While when this root word "*stan*" joints with the suffix "*yat*" then it related to mothers milk.

*Ayurveda* denoted *Stanya* as the *Upadhatu* of *Rasa*, as per *Acharya Charaka tanyam* means *Stanya* is formed from *Rasa*.<sup>[1]</sup>

According to *Acharya Sharangadhara* describes that *Stanya* (breast milk) and *rajas* (menstrual blood) appear and disappear according to age in females.<sup>[2]</sup>

### Definition of *stanya*

The sweet essence of the *Rasa* synthesized from the digested food circulates through the whole body and finally accumulated in the breast of the mother is called as *Stanya* (breast milk).<sup>[3]</sup>

### *Panchabhautika* composition of *stanya*

As per *Acharya Bhaumati* *Stanya* is *apya* i.e (*Jala Mahabhuta*) dominant.<sup>[4]</sup>

### Formation of *stanya*

In women having conceived, passages of channels sending menstrual blood are obstructed by foetus and as such menstruation is not observed in them, thus being obstructed below it reaches upwards and further developed forms *Apara* (placenta), the leftover portion goes higher up to breasts that is why the pregnant ladies have corpulent and protruded breasts.<sup>[5]</sup>

### Origin of *stanya*

As explained by *Acharya Sushruta* and *Bhavaprakasha*, *Stanya* is developed from *Ahara Rasa* and it is present in whole body. In the view of *Acharya Sushruta* the sweet essence of *Rasa* produced by Initiation of *Stanya*.<sup>[6-7]</sup>

### Schedule for initiation of *stanya* in females

According to *Acharya Bhavaprakasha*, the essence of food consumed after digestion attains the form of *Stanya* after reaching the *Stana* (Breasts) and three to four days after delivery the *Dhamani* originating from *Hrudaya* open and allow the breast milk to flow.<sup>[8]</sup>

*Acharya Sushruta* explains that by dilatation of *Dhamani* (Arteries) residing in *Hridaya* (Cardiac region), breast-milk appears in women after three or four days.<sup>[9]</sup>

As per *Acharya Vagbhata* explains that by dilatation of *Sira* (Veins) residing in *Hridaya* (Cardiac region), breast-milk appears in women after three or four days.<sup>[10]</sup>

**Quantity of stanya**

Vagbhata said that quantity of *Stanya* in human body (Female) is of 2 Anjali.<sup>[11]</sup>

**Karma (functions) of stanya**

According to *Acharya Sushruta* Breast milk causes corpulence of breasts and promotes life.<sup>[12]</sup>

The *Stanya* (Breast milk) provides health, physical development and promotion of strength to the child.<sup>[13]</sup>

*Acharya Charaka* has explained *Stanya* as *Pushtikara* (provide nourishment) and *Arogyakara* (maintains good health) to the child.<sup>[14]</sup>

**Advantages of stanya**

*Acharya Charaka* has mentioned breast milk for *Atyagni (Bhasmaka)*.<sup>[15]</sup>

*Acharya Sushruta* has suggested breast milk for *Nasya* (Nasal application) and *Ashchayotan* (Filling of eyes).<sup>[16]</sup>

**Methods of assessing Shuddha and Dushita Stanya****Features of suddha stanya**

	Colour	Taste	Temperature	Appearance	Smell	Consistency	Jala Pariksha	Effects
<b>Charaka</b>	Natural	Natural	Natural	Natural	Natural	Natural	Dissolves uniformly	It provides nourishment and helps to maintain overall health. <sup>[17]</sup>
<b>Sushruta</b>	White like conch shell	Sweet	Cold	Normal	-	Thin	Dissolves uniformly	Provides good health, growth and development of body as well as gives strength to infant. <sup>[18]</sup>

As per *Acharya Vagbhata* he did not state the quality of pure breast milk, however he describes *Stanya* which becomes homogeneous (Mixes evenly) with water and which has no signs of presence of the *doshas* is the pure/*Vishuddha Stanya* (un-vitiated breast-milk).<sup>[19]</sup>

### Features of *dushita stanya*

Sr. no.	Vitiated Dosha	Features
1.	<i>Vata</i>	Indigestion, intake of unsuitable, irregular, excessive and contradictory food, mental and physical stress, insomnia, awakening at night, anxiety, suppression of urges and propulsion of non-occurring urges and emaciation of body as a result of chronic illness.
2.	<i>Pitta</i>	Excessive intake of salty, sour, pungent, alkaline and rotten substances, excess use of alcohol (wine), anger, slowly formed curd or which is not completely fermented.
3.	<i>Kapha</i>	Frequent intake of <i>Parmanna</i> (milk pudding), eatable substances prepared with jaggery and rice cooked with pulse ( <i>Khichari</i> ), curd <i>Kapha</i> aggravating food like those having "Abhishyandi" property, meat of domestic, marshy and aquatic animals, daily sleeping throughout day time after having food, absence of physical stress.

These *Vatadi Dosha* get vitiated and they reach the milk carrying vessels and vitiate the breast milk, thus eight types of *Stanya Dushti* are manifested.<sup>[20]</sup>

### Signs of vitiation in breast milk as per dosha dominance

Vitiated <i>Vata Dosha</i> shows <i>virasta</i> (Abnormal taste), <i>phensanghat</i> (Presence of froth) and <i>rukshata</i> (roughness) in <i>stanya</i> .	Vitiated <i>Pitta Dosha</i> <i>Stanya</i> (Breast milk) becomes <i>Vaivarnya</i> (Discolored) and <i>durgandhit</i> (Foul smelling).	Vitiation of <i>Kapha</i> , the <i>Stanya</i> (Breast milk) becomes excessive Un-unctuous, <i>pichil</i> (Slimy) and <i>gorav</i> (Heavy indigestion).
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These vitiated *doshas* finally reaches the breast and adversely affects the taste of the milk.

Dosha	Numbers of <i>stanya dushti</i>	Names
<i>Vata Dosha</i>	3	<i>Vairasya Phenasamghata Raukshya</i>
<i>Pitta Dosha</i>	2	<i>Vaivarnya Durgandh</i>
<i>Kapha Dosha</i>	3	<i>Sneha Paichilya Gaurava</i>

### Signs of *vata vitiation* in breast milk

- 1. *Virasa stanya dushti*:** The child who feeds on the milk of *Virasa* (Abnormal taste) affected by the *Vata*, becomes *Krusha* (Very weak). The child does not enjoy the taste of milk and thus growth gets impaired.
- 2. *Phena sanghata stanya dushti*:** The aggravated *Vayu* reaches the breast and churns the milk by which *Phena Sanghata* (Excessive froth) is produced and hence such milk flows out of breast with great difficulty.

By consuming the *Phena Sanghata Kshira* (Frothy milk), the child voice becomes *Kshama Swara* (Feeble). *Baddha Vinmutra Maruta* (Stool, urine and flatus are retained), suffers from *Shiro Roga* due to *Vata* and *Pinasa* (Chronic coryza).

3. ***Rukshata stanya dushti***: The vitiated Vayu dries up the Sneha of the milk and makes it dry. By the intake of such milk the child gets reduced with strength because of dryness.

#### Signs of *pitta* vitiation in breast milk

4. ***Vivarnata stanya dushti***: The *pitta* vitiated after intake of *Ushnadi* (Hot items etc.) reaches in the seat of milk and produces the discolored milk such as *Nila* (Blue), *Pita* (Yellow), *Asita* (Black).

If the child consumes such milk, there will be discoloration of the body and the child will also suffer from *Sweda Adhikya* (Excessive perspiration), *Trishna* (Excessive feeling of thirst), *Atisara* (Diarrhea) and *Ushna Sharira* (Constant warmth of body).

5. ***Durgnadha stanya dushti***: The vitiated *Pitta* due to intake of *Pitta* aggravating factors produces the *Daurgandhya* (Foul smell) in the milk. If the child consumes this kind of milk does suffering from *Pandu* (Anemia) and *Kamala* (Jaundice).

#### Signs of *kapha* vitiation in breast milk

6. ***Snigdha satnya dushti***: The vitiated *Kapha* due to intake of *Gurvadhi* (Heavy substances or similar food items) reaches the breast of woman and makes it too *Snehana* (Unctuous) because of its own *Snigdha Guna* (Unctuous quality).

The child who takes or consumes *Atisnigdha* (Unctuous) milk suffers from *Chardi* (Vomiting), *Kunthana* (Gripping pain) and *Lalastrava* (Excessive salivation). As the channels are constantly filled or smeared with *Kapha*, the child suffers from *Nidra* (Sleep), *Klama* (Exhaustion), *Shwasa* (Breathlessness), *Kasa* (Cough), *Praseks* (Excessive dribbling of saliva) and *Tamaka* (Darkness).

7. ***Pichchila stanya dushti***: When *Kapha* is vitiated or predominates with its own factors, it makes the breast milk *Pichchila* (Slimy). The child who consumes slimy milk suffers from the *Lalalu* (Excessive salivation), *Shuna Vaktra Akshi* (Swelling of face, Dull eyes) and *jada* (Becomes inactive).

8. **Guru stanya dushti:** The aggravated *Kapha* associated with the qualities *Gurutva* (Heavy) afflicts the breasts milk, it also brings *Guru* (Heaviness) in the milk. The child who consumes this kind of milk will suffer from *Hrudaya Roga* (Heart disease) and *Vividha Roga* (Other various disorders) are also caused by the *Guru Stanya* (Heavy milk).<sup>[21]</sup>

#### Ayurvedic drugs for *Stanya-janana* and *Stanyadusti Chikitsa*<sup>[22]</sup>

Acharya Charaka in *Sutrasthana* states *Stanya-Janana* and *Stanya-Shodhan Mahakashaya* for promoting production the purification of breast milk.

#### *Stanya-Janana mahakashaya*

Sr. No.	Drug name	Botanical name	Part used
1.	Virana	<i>Vetiveria zizanioides</i>	Root
2.	Sali	<i>Oryza saliva</i>	Root
3.	Sastika	A variety of <i>Oryza sativa</i>	Root
4.	Iksuvalika	<i>Asteracantha longifolia</i>	Root
5.	Darbha	<i>Desmostachya bipinnata</i>	Root
6.	Kusa	A variety of <i>Desmostachya bipinnata</i>	Root
7.	Kasa	<i>Saccharum spontaneum</i>	Root
8.	Gundra	<i>Socchanim sara</i>	Root
9.	Itkata	Not known	Root
10.	Katrna	<i>Cymbopogon schoenanthus</i>	Root

#### *Stanya-sodhan Mahakashaya*

Sr. No.	Drug name	Botanical name	Part used
1.	Patha	<i>Cissampelos pareira</i>	Whole plant
2.	Sunthi	<i>Zingiber officinale</i>	Dry rhizome
3.	Devdaru	<i>Cedrus deodara</i>	Bark
4.	Nagaremotha	<i>Cyperus rotundus</i>	Dry rhizome
5.	Murva	<i>Marsdenia tenacissima</i>	Stem
6.	Guduchi	<i>Tinospora cordifolia</i>	Stem
7.	Vatsaka (Kutaj)	<i>Holarrhena antidysenterica</i>	Bark
8.	Kirattikta	<i>Swertia chirata</i>	Whole plant
9.	Kutaki	<i>Picrorhiza kurroa</i>	Rhizome
10.	Sariva	<i>Hemidesmus indicus</i>	Root

#### Manifestations of *Vruddhi* and *Kshaya* of *Stanya*

Features of increase in <i>stanya</i>	Features of decrease in <i>stanya</i>
According to Acharya Sushruta, increased <i>Stanya</i> gives rise to corpulence in breast, increased frequency and pricking pain. <sup>[23]</sup>	As per Acharya Sushruta, in decrease of breast milk breasts are depressed and secretion of breast milk is absent or little.



To increase the quantity and quality of Stanya in mothers body one has to increase substances which increases *Shleshma* i.e. *Kapha*.<sup>[24]</sup>

### **Stanya (Breast feeding) as per contemporary sciences**

Breast milk is an ideal food for neonates. It is the foremost gift that a mother can offer to her baby. It consists all the nutrients for normal growth and development of a child from the time of birth to the first six months of life. Exclusive breastfeeding for six months has an ability to reduce under-5 mortality rate by 13%, by far the most effective intervention that is known to reduce newborn and child deaths.

To achieve the maximum benefits, the breastfeeding must be exclusive (Only breast milk; nothing other than breast milk except vitamin drops, if indicated), initiated within half an hour of birth and continued through first six months after birth.<sup>[25]</sup>

### **Composition**

Breast milk contains about 88.5% of water and 11.5% of solids. This composition may differ on the basis of various environment factors which includes mother's diet.<sup>[26]</sup>

### **Physiology**

Lactogenesis is a complicated phenomenon involving many hormones and reflexes. Two hormones are most important, prolactin and oxytocin.

Prolactin reflex (Milk secretion reflex). Prolactin made by the anterior pituitary gland is responsible for the secretion of milk by the alveolar epithelial cells. When the baby sucks the nipples, the nerve ending in the nipple conveys impulse to the anterior pituitary which in turn discharge prolactin and that acts on the alveolar glands in the breast to stimulate milk secretion.

This cycle from stimulation to the secretion is called as prolactin reflex or the milk secretion reflex which means the more the baby sucks at the breast, the greater is the milk production occurs. The earlier we starts the breast feeding, the sooner this reflex is initiated. The greater the demand more is the production. It is, therefore, it is very essential for mothers to feed early, frequently and empty out the breasts completely at each feeding session. Since the prolactin is built during night time, breastfeeding during night is very essential for maintenance of this reflex.



Oxytocin reflex (Milk ejection reflex). Oxytocin is a type of hormone which is made by the posterior pituitary. This hormone plays a vital role for ejection of the milk from the glands into the lactiferous sinuses. This hormone is made in response to stimulation to the nerve endings in the nipple by suckling as well as by the thought, sight, or sound of the baby. Since this reflex is affected by the mother's emotions, a relaxed, confident attitude helps the milk ejection reflex. On the other hand, tension and lack of confidence in mother decrease the milk flow.<sup>[27]</sup>

### **Advantages of breast feeding**

#### **Benefits to the baby**

**Right nutrients:** The breastmilk contains the right nutrients (Proteins, carbohydrates, fats, vitamins, and minerals) in right amount, which is optimum for the baby. The nutrients in breastmilk are better absorbed than from any other source, especially iron.

**Economic benefits:** Breastmilk is much cheaper than animal milk or powdered milk. All it costs is the extra food needed by the lactating mother. In a way, breastfeeding contributes to national economy as in its absence, young infants would require alternative resources for feeding.

**Protection from infections:** It has anti-infective factors and growth factors like *Lactobacillus bifidus* which help the baby fight infections and grow well. Infants who are breastfed are 15 times less likely to die from pneumonia and 11 times less likely to die from diarrhea.

**Intelligence:** Studies show improved scores of cognitive function on average 8 points higher among children who were breastfed compared with those who were formula fed. This may be due to unique composition of breastmilk, better mother-infant bonding, and lower infectious morbidity and thus better brain growth in these children.

**Psychological benefits:** Breastfeeding helps form a close, loving relationship between the mother and the baby. Close contact soon after birth helps this relationship to develop. This process is called bonding. There is better parent-child adjustment and fewer behavior disorders in these children. Child abuse is also less common.

**Miscellaneous:** Breastfeeding provides some protection against allergic disorders such as atopic eczema and asthma. The incidence of sudden infant death syndrome (SIDS) is less in

breastfed children. Human milk reduces the incidence of necrotizing enterocolitis (NEC) in preterm babies.

The beneficial effects of breastfeeding may extend to later life. There is compelling evidence to suggest that breastfeeding reduces the incidence of atherosclerosis, non-insulin dependent diabetes mellitus, obesity, hypertension, and certain cancers later in life.<sup>[28]</sup>

### **Benefits to mother**

- 1) Breastfeeding just after the birth of baby helps uterine involution, reducing chances of postpartum hemorrhage.
- 2) It provides protection against pregnancy due to lactational amenorrhea. If the mother has been exclusively breastfeeding her baby and has not resumed menses then there is no need for any other contraception during initial 6 months after delivery.
- 3) Breastfeeding is easy and time saving. It reduces the risk of cancer of breast and ovary.<sup>[29]</sup>

### **Benefits to society**

- 1) The cost involved in breastfeeding is negligible as compared to the expenditure that the society has to make toward procuring and feeding with animal or formula milk.
- 2) As breastfeeding prevents infection, it also reduces the healthcare cost. It is eco-friendly and does no harm to the environment.<sup>[30]</sup>

### **Advantages of breast milk**

- 1) Breast milk is always considered superior to animal milk (cow milk or goat milk) because it consists of sufficient quantity of all the substances necessary for infants like iron, vitamins and minerals.
- 2) Besides nourishment of infant, the breast milk also provides several antibodies, which help the infant resist the infection by lethal bacteria. Even some neutrophils and macrophages are secreted in milk. These phagocytic cells protect the infant by destroying microbes in the infant's body.

### **Disadvantages of breast milk**

- 1) It causes irritation of Gastro-intestinal tract and anemia.
- 2) Excess amount of proteins and fats in animal milk are tough to digest and absorb by the infants.

- 3) Raised levels of sodium and potassium in animal milk results in overstraining of immature kidneys in infants.
- 4) Low levels of iron in animal milk develops iron deficiency anemia.<sup>[31]</sup>

### **Desirable practices which promotes breastfeeding**

- 1) Antenatal counseling of the mother regarding breastfeeding and its importance and benefits to the baby.
- 2) Rooming in should be practiced, i.e., the mother and the baby should be kept together close to each other. The trend of keeping babies in the crib has, therefore, been done away with.
- 3) The baby is allowed to suck at the mother's breast as early as within 1 hour after birth.
- 4) Prelacteal feeds or pacifiers are not recommended.
- 5) Letting the baby suck frequently at the breast is the single most important factor which enhances milk output in mothers and hence promotes breastfeeding.
- 6) No artificial feeds should be given to the baby by bottle or by any other method.
- 7) The mother should be tension-free and relaxed.
- 8) The mother should receive proper privacy to breastfeed her baby in the hospital and at home.

### **Contraindications of breastfeeding**

Under extremely rare conditions, the mother is advised not to breastfeed her baby.

Some contraindications to breastfeeding are as follows:

- 1) If the mother is on antithyroid drugs, such as carbimazole or methimazole, or anticancer drugs.
- 2) Intake of drugs, such as radioactive compounds, lithium and gold salts.
- 3) If the baby is suffering from a disorder, such as galactosemia or phenylketonuria.
- 4) If the mother who is breastfeeding is on any medication, a doctor must be consulted regarding the safety of the drug to the baby. Infections such as human immunodeficiency virus (HIV), hepatitis B, and tuberculosis in the mother are not contraindications to breastfeeding.<sup>[32]</sup>

### **CONCLUSION**

Breastfeeding, or *Stanya*, have an intense role in both traditional and contemporary healthcare systems. From the *Ayurvedic* perspective, *Stanya* is widespread recognized as the most natural and beneficial method of nourishing an infant. *Stanya* is considered a vital *upadhatu*

of *Rasa Dhatu* and it plays an important role in the physical and psychological development of the child. *Ayurveda* scholars such as *Acharya Charaka* and *Acharya Vagbhata* highlights the importance of the mother's health, diet, and her mental state in the quality and quantity of breast milk. In *Ayurveda* there is detailed description of large number of drugs like *Patha*, proper diet and behaviour regimens which are prescribed for *stanyaajanana* or enhancing breast milk production. Modern medical sciences validates these traditional beliefs, approves breastfeeding as important for optimal infant development, maternal recovery, and long-term health benefits. Contemporary guidelines from global health authorities such as WHO and UNICEF advises for exclusive breastfeeding during the first six months of life, aligning remarkably with *Ayurvedic* wisdom. Thus, breastfeeding, or *Stanya Pana*, works as a bridge between ancient wisdom and modern science, expressing a holistic approach to nurturing life.

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