



# The Impact of Breast Milk on the Normal Growth of the Baby

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## Abstract

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**BACKGROUND:** Other advantages of breastfeeding are: It costs less than artificial feeding; helps a mother and baby to bond closely-strengthens a deep love relationship; helps the baby develop; can help delay a new pregnancy; protects maternal health; and helps the uterus return to its previous size. This helps reduce bleeding and can help prevent anemia. Breastfeeding also reduces the risk of ovarian cancer and possible breast cancer in the mother.

**METHODOLOGY:** In this study, it is important to note that breast milk affects an increase within the rates of a child, and prevents obesity. The children of the health center no. 10 were taken into study there are 898 children born from January 2020 to October 2021. For the purpose of this analysis, they were divided into groups. Breastfed babies and babies fed with formula milk, as follows: (1). Breastfed children 0–6 months = 180 children, (2) infants 0–12 months fed with formula 100 children, and (3) children 0–12 months fed with mixed food 0–12 months = 618 children. Children's growth in weight, height, and head circumference were measured and compared for to investigate for any differences between those who are breastfed and the others.

**RESULTS:** The weight of the child was the main data that we made comparisons in differences between children who were fed with breast milk and children who were fed with milk with formula. All children have grown up within certain norms, but we see a very small difference in greater weight in formula-fed children in both age groups. We notice that children who are breastfed have a smaller increase in height in the age group 0–6 months than children of this age group if they are breastfed the opposite formula is in children aged 6–12 months who are breastfed breastfeeding and have a greater increase in height than infants who are formula fed.

**CONCLUSIONS:** Breastfeeding should be started within ½–1 h after birth, breastfeeding only from 0 to 6 months, and supplementary feeding should be started from the 6<sup>th</sup> month. Continue breastfeeding for over 2 years and beyond .

## Introduction

The advantages of a breastfed baby are:

- It contains exactly the nutrients that a baby needs;
- It is easily digestible and used effectively by the baby's body;
- Protects the baby against infection.

Other milks are different and not as good as breast milk for a baby.

Other benefits of breastfeeding include [1], [2], [9], [10]:

- Costs less than artificial feeding;
- Helps a mother and baby to bond closely-strengthens a deep love relationship;
- Helps the baby develop;
- Can help delay a new pregnancy;
- Protects the health of the mother;

Breastfeeding also reduces the risk of ovarian cancer and possible breast cancer in the mother [5], [6], [7], [8], [11], [12], [13], [14].

## Variability in the Composition of Breast Milk

The content of breast milk is not always the same. It varies according to the age of the baby as well as from the beginning to the end of a feeding meal. It also varies depending on the meal and can be different at different times of the day. The pasture is the special, thick, light yellow milk produced by the woman in the 1<sup>st</sup> days after giving birth. After few days, the pasture changes to the final milk. A greater amount of milk is felt and the breasts feel swollen, firm, and heavy. This is often called the "milk arrival." It contains more antibodies and other anti-infective proteins than later milk. This is one of the reasons why pasture contains more protein than later milk. It contains more leukocytes than later milk. These anti-infective proteins and leukocytes provide the first immunization against diseases that a baby encounters after birth. Pasture helps to prevent bacterial infections, which pose a risk to the newborn baby. Antibodies also help the baby to prevent allergies. Pasture has a mild purgative effect, which helps cleanse the baby's gut of meconium (the baby's first and dark-colored stool). This cleanses the bilirubine from the intestines and helps

prevent jaundice [1], [2], [3], [4], [5], [6], [7], [8]. Pasture contains growth factors, which help the baby's immature gut develop after birth. This helps and protects the baby against allergies and intolerance to other foods. Pasture is richer than later milk in some vitamins-especially Vitamin A. Vitamin A helps reduce the severity of any infections that children may have. Thus, for infants it is very important to take the pasture in the first feedings immediately after birth. The pasture is ready in the mother's breast when the baby is born. It is the only food that babies need, before the "arrival" of whole milk. Babies should not be given any drinks or food before they start breastfeeding. Artificial feeding given to the baby before he takes the pasture is very dangerous. Pasture and breast milk contain many hormones and growth factors. The function of all these is not clear. However, epidermal growth factor, which is present in both, has been shown to stimulate the growth and maturity of intestinal. Undigested cow's milk proteins can pass from the baby's immature intestine into the bloodstream and can cause allergies and intolerance to milk proteins. The epidermal growth factor helps prevent the absorption of large molecules, stimulating the rapid development of the intestine. This "seals" the baby's intestines, so it is more difficult for proteins to be absorbed without being digested. Antibodies have the potential to help prevent allergies by clotting the intestinal mucosa and preventing the absorption of larger molecules [8], [9], [10], [11], [12], [13].

### **Purpose**

The purpose is to emphasize the values and attributes of breast milk, as well as how it affects the growth within the norms of the baby.

### **Statistical analysis of the data**

For the numerical variables the central trend sizes (arithmetic mean, median, and mode) and the dispersion sizes (variance, standard deviation, and quantitative-numerical variable) were reported. The respective numbers and percentages were reported for the categorical variables. Descriptive analysis of variables and meta-analysis was used, which compared the results of other studies with our study. Statistical tests for two and more than two independent samples were used to find the value of P or  $\alpha$  error with 95% CI confidence interval. Those connections that had a value of  $p < 0.05$  were called significant.

Statistical processing as we said had two main components where we focused:

## **Quantitative Descriptions**

For categorical variables, respective numbers and percentages were reported;

For numerical variables, arithmetic means corresponding standard deviations (e.g., age) were reported.

Analytical part where the associations (dependencies and connections) of the variables in were analyzed as follows:

### **Bivariate analysis**

Linking diagnosis to other variables of interest.

### **Multivariate analysis**

All multivariate models were checked (adjusted) simultaneously for the following variables:

Factors such as the child with a gestational age of 1–12 month, after birth, weight, and time between birth.

Different statistical tests in the quantitative part were used to compare our variables and the significance of the data change was seen. All statistical data analysis was performed in SPSS (Statistical Package for the Social Sciences, version 15.0, Chicago, IL).

## **Methods**

The children of the health center no. 10 were taken into study children born from January 2020 to October 2021 in total 898: (1) Breastfed children 0–6 months = 180 children, (2). infants fed formula 0–12 months = 100 children, and 3 children fed mixed food 0–12 months = 618 children.

Children's growth in weight, height, and head circumference those who are breastfed and breastfed.

## **Results**

Even in the study, I have conducted I am based on these three parameters. So all the estimates are used. And we came up with these results, which are described below, comparing the study groups with the control. From this study, we found that infants who are breastfed are closer to their normal growth values, compared to infants who are breastfed they are further away from these values. These data are analyzed based on the weight and height of the child.

In the first Table 1, we notice that infants breastfed have a weight close to the norm compared to the table of normal growth values (Table 2).

This Table 3 shows breastfed babies are of normal height of which 35% of breastfed babies are

**Table 1: Table of weight and height norms [6], [7], [8], [9]**

Age in months	Weight of normal children		Length in cm
	Minimum (kg)	Maximum (kg)	
1 Months	3.500	5.000	52–55
2 Months	4.300	6.000	56–59
3 Months	4.800	6.500	59–61
4 Months	5.300	7.200	61–65
5 Months	5.750	7.750	63–67
6 Months	6.100	8.150	66–69
7 Months	6.500	8.550	66–67
8 Months	6.800	9.000	67–71
9 Months	7.000	9.250	68–72
10 Months	7.300	9.600	69–73
11 Months	7.500	9.800	70–74
12 Months	7.750	10.100	71–76
13 Months	8.000	10.400	
14 Months	8.150	10.650	
15 Months	8.300	10.850	74–79
16 Months	8.500	11.100	
17 Months	8.650	11.350	
18 Months	8.800	11.500	77–82
19 Months	9.000	11.750	
20 Months	9.100	11.900	
21 Months	9.250	12.100	78–84
22 Months	9.400	12.300	
23 Months	9.500	12.500	
24 Months	9.700	12.700	80–86
25 Months	9.800	12.800	
26 Months	9.950	13.000	
27 Months	10.100	13.150	83–89
28 Months	10.300	14.500	90–96

## Analysis growing babies according age

## Growing babies according age

Children that feed with	Age in months	Number
Breast milk	0–5	180
Artificial milk	0–12	100
Mixed food	0–12	618

6–12 months old and 65% of breastfed babies are 0–6 months old.

**Table 2: Growing babies according to age**

Age	Weight (gr)	Height (cm)	Head circumference
0–6 months	4500–8500	50–70	35–42
6–12 months	8500–12000	70–80	42–45

## Tabular presentation

Limit	Weight in grams	
	0–6 months	6–12 months
Low	4500	8500
High	8000	12,000

This Table 5 shows that breastfed infant develop within the norms of head circumference from which 55% of breastfed infants belong to the age of 6–12 months and 45% of breastfed infants belong to the age of 0–6 months.

**Table 3: Tabular representation of height**

Border in height	Height in cm	
	0–6 months	6–12 months
low height	50	70
height	70	80

A baby can get too much artificial milk and become obese

**Table 4: Tabular presentation of head circumference**

The highest limit	Head circumference (in cm)	
	0–6 months	6–12 months
low	35	42
high	42	45
the lower limit	head circumference in cm)	
	0–6 months	6–12 months
the lower limit	35	42
the highest limit	7	3

**Table 5: Raising infants on formula feeding**

AGES	weight (gr)	heights (cm)	head circumference
0–6 months	4800–8900	53–78	35–42
6–12 months	8800–13000	78–90	42–45

## Tubular presentation

Limit of	Weights in gram	
	0–6 months	6–12 months
Low	4800	8800
High	8800	13000

This Table 6 shows that breastfed infants are of normal weight of which 65% of breastfed infants belong to the age of 6–12 months and 35% of breastfed infants belong to the age of 0–6 months.

**Table 6: Breast-feeds infants 6-12 months and 0-6 months**

Limit of height	heights in cm)	
	0–6 months	6–12 months
low height	58	78
height	78	90

This Table 6 shows that formula-fed infants are of normal height of which 57% of formula-fed infants belong to the age of 6–12 months and 43% of formula-fed infants belong to the age of 0–6 months

**Table 7: Raising infants of head circumference**

Limit of height	Head circumference (in cm)	
	0–6 months	6–12 months
Low	35	42
Height	42	45

This Table 7 shows that formula-fed infants develop within head circumference norms of which 57% of formula-fed infants are 6–12 months old and 43% of formula-fed infants are of age 0–6 months.

***Difference between breastfed babies and formula-fed babies by weight***

All children have grown up within certain norms, but we see a very small difference in greater weight in formula-fed children in both age groups.

We notice that children who are breastfed have a smaller increase in height in the age group 0–6 months than children of this age group if they are fed formula milk the opposite is in children aged 6–12 months who are breastfed and have a greater increase in height than children who are fed formula milk.

The weight of the child was the main data that we made comparisons in differences between children who were fed with breast milk and children who were fed with milk with formula. All children have grown up within certain norms, but we see a very small difference in greater weight in formula-fed children in both age groups. We notice that children who are breastfed have a smaller increase in height in the age group 0–6 months than children of this age group if they are breastfed the opposite formula is in children aged 6–12 months who are breastfed breastfeeding and have a greater increase in height than infants who are formula fed.

### Risks of artificial feeding

- Artificial feeding can interfere with the mother's bond with the baby. The mother and baby may not develop very close affective relationships.
- A child on artificial feeding is more likely to get respiratory infections, diarrhea, otitis, or other infections.
- Diarrhea may become prolonged.
- The baby may get less milk and go into malnutrition because he gets too little food, or he is too thin. More likely to suffer from Vitamin A deficiency.
- An artificially fed baby is more likely to die from infections and malnutrition than a breastfed baby.
- Increases the risk of some chronic diseases in childhood, such as diabetes.
- A baby can get too much artificial milk and become obese.
- The child may not be developing well mentally and may have lower scores on the intelligence test.
- Breastfeeding is a natural thing to do, but it still comes with its fair share of questions. Here's what you need to know about your eating and drinking habits — and how they may affect your baby — during breastfeeding.
- Breastfeeding is the basis for the health and survival of the baby and very important for the health of the mother [11], [12], [13], [14], [15], [16], [17], [18].

### Recommendation

Babies should start breastfeeding within 1/2–1 h after birth. They should not take any fluids or food before starting breastfeeding

- Babies should only be breastfed for at least the first 6 months of life.
- Between 4–6 months, give extra food, only if the baby is not growing properly, or if she looks hungry, despite breastfeeding. Most babies do not need extra food before 6 months.
- All children older than 6 months should receive complementary foods.
- Children should continue to breastfeed until the age of 2, or even later [1], [2], [3], [4], [5], [6].

### Conclusions

Breastfeeding had positive effects on the child's growth. It was noticed that all the children of the study had weight, height and circumference in normal values, referring to the table that determined the growth of the child based on the vital rates. We come to the

conclusion that breast milk is the best way to feed a child to have a normal growth and not risk health problems.

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