Breast Milk Contents ¹⁻	Formula Contents ¹
Thousands of	A few dozen
ingredients	ingredients
Needed minerals,	Subset of minerals and
vitamins	vitamins
Primarily lactose	Primarily cow milk
	protein
Fats	Fats (non-human)
Protein	Protein (non-human)
Water	Water
200 essential fatty acids	Synthetic DHA and ARA
Antibodies for local	
infectious agents	
Hormones for brain	
development and	
relationship building	
Anti-viruses	
Anti-allergies	
Anti-Parasites	
Growth factors	
Digestive enzymes	

In babies, breast milk protects against:

- Sudden Infant Death Syndrome⁴⁻¹⁰
- High Blood Pressure¹¹⁻¹³
- High Cholesterol¹⁴
- Cancer^{15,16}
- Diabetes¹⁷⁻²⁰ and Obesity²¹⁻²⁹
- Depression³⁰
- Allergies³¹
- Ear infections³²
- Dental problems³³
- Respiratory problems³⁴

Benefits for Mothers

- Protects against breast and ovarian cancer³⁵⁻⁴¹
- Reduces the risk of diabetes^{42,43}
- Reduces pregnancy weight gain faster^{44,45}
- Reduces depressive symptoms^{42, 47-48}
- Encourages bonding with the baby⁴²
- Encourages nighttime sleeping⁴⁹⁻⁵²

• Postpones ovulation⁵³

Breast milk builds the immune system properly.

Breast milk contains thousands of ingredients that build the child's immune system and prevent diseases and infections.^{1,2} Breastmilk contains:

- Immunoglobulins that play a part in protecting infants from microorganisms. Colostrum contains high levels of Secretory IgA, an immunoglobulin that provides intestinal protection for young infants against poliovirus and harmful bacteria like *E. coli.*⁵⁴
- Lymphoid cells that produce IgA and mediate cellular immunity⁵⁴
- Leukocytes play a part in preventing infection in the infant's gastrointestinal tract⁵⁵
- Lactoferrin binds the iron in germs that cause gastrointestinal infection, which stops their infectious action in the infant's gut⁵⁶
- Appropriate levels of cholesterol and polyunsaturated fatty acids that are used in brain tissue development and myelinization⁵⁷

Breast milk changes with the growing nutritional needs of the child.

Breastmilk contains all the nutrition a baby needs for development during the first six months of life³ and provides additional nutrition and immune system protection throughout the process. Formula is inflexible, staying the same feeding after feeding whereas breastmilk changes:

- flavor with maternal diet, preparing the palate for a wide range of tastes^{58,59}
- antibodies for local infectious agents⁵⁴
- contents based on time of day⁶⁰
- fat, protein content with needs of the growing child⁶¹

Breastfeeding allows the child to regulate his own body and feedings.

A breastfeeding child develops strong facial muscles, which align jaws and teeth.⁶²

Best Practices for Hospitals

Breastfeeding should be started as soon as possible after birth, even with cesareans. During the first hour of life, babies' instincts prepare them to breastfeed. ^{63,64} Medical interventions like an epidural or a baby's physical or neurological difficulties can hinder babies' ability to latch onto the breast right away. ^{65,66} Even so, babies who have initial difficulties latching can learn to breastfeed efficiently in due time, especially with the help of a lactation consultant. ^{67,68}

Continuous touch, even with dad, encourages breastfeeding.⁶⁹ Feeding within the first hour of birth is extremely important for long-term breastfeeding success.⁷⁰ When babies are taken away from their mothers during the crucial first hour, they are often fed formula.⁷¹

Breastfeeding on demand, even at night, right after the child is born helps to ensure that mothers will not run out of milk later.⁵¹ Over 95% of women are physiologically able to breastfeed. Mothers' breast milk actually adapts in both quantity and quality to the changing nutritional needs of the child.^{60,61}

Frequent feeding is vital. Babies need to eat frequently to keep the body nourished during its rapid growth. Just like growing children, babies go through growth spurts, causing them to eat more or less frequently.⁶¹ Frequent feedings signal the needs of the baby to the mother's body, which will produce what is needed.⁶¹

Lack of support is the one of the top reasons that moms don't breastfeed.⁷³ *Being neutral*

Breastfeeding Exclusively

Both the American Academy of Pediatrics (AAP) and the World Health Organization (WHO) **recommend that mothers breastfeed exclusively for the first six months after birth.**^{74,75} Breast milk supplies the vitamins, minerals, nutrition and hydration that babies need.⁷⁴⁻⁷⁶ Formula populates the infant's gut with pathogenic bacteria.⁷⁷

Breastfeeding Length

It is normal and natural to breastfeed for longer than one year. The World Health Organization recommends breastfeeding for at least two years.⁷⁵ Even though the American Academy of Pediatrics recommends that moms breastfeed for at least one year, only one in five women in the US are breastfeeding at all when their child is one year old.⁷⁸ Breast milk builds the child's immune system which does not reach adult functioning until age 6 or so. The health benefits the child gains through extended breastfeeding last a lifetime.³

Premature babies benefit from breastmilk

Breastmilk is the best medicine for all babies, including premature babies.^{74,79} A mother's milk is specially designed to nourish her premature child, preventing infections, even death.^{74, 79-85}

Breastfeeding is correlated with:

- Graduating from high school⁸⁶⁻⁸⁸
- Emotional stability and secure attachment³⁰
- Positive mental health^{89,90}
- Increased intelligence⁹¹⁻⁹⁵
- Less substance abuse and addiction⁹⁶
- Better health³

Lactation consultants have the knowledge and teaching skills to help moms and babies successfully breastfeed. Consultants can help moms navigate challenges that come and go.

How people <u>undermine</u> mothers' decisions about breastfeeding:

- Acting as if formula and breastmilk are comparable
- Staying neutral about feeding choice decision
- Not informing pregnant women about the
- benefits and management of breastfeeding
 Using medical drug interventions during a
- Using medical drug interventions during a normal birth
- Separating baby from mother right after birth
- Sending babies to nursery at night
- Not encouraging regular skin-to-skin contact and 24-hour mother-child togetherness
- Not collaborating with lactation support
- Not encouraging breastfeeding on demand
- Giving newborns infant formula, sugar water, or pacifiers
- Giving free samples of formula to moms
- who are uncertain or say they want to breastfeed
- Giving inaccurate information about
- prescription medication instead of using
- Thomas Hale's, Medications and Mothers
- http://www.infantrisk.com/



Local lactation consultant phone number: 574-647-3475 provided by St. Joseph County Breastfeeding Coalition

For references see http://www.nd.edu/~dnarvaez/Stone-ageparenting-breastfeeding.htm

This brochure was put together by the University of Notre Dame Breastfeeding Education Project (Members: Dr. Darcia Narvaez, Stephanie Sieswerda, Elizabeth Ledden, Abbey Warkentin, Karly Denkhaus; 2011)

Facts about FEEDING BABIES

for medical personnel



What mothers feed their infants is very important for their child's lifetime health and well-being.

There should be no question. The evidence is overwhelming regarding the quality difference between formula and breastfeeding. **Mother's milk, has thousands of ingredients to build the human brain, body and immune system.** Breast milk is incomparable with a man-made product of a couple dozen ingredients that are non-human and in wrong proportions¹⁻³. Breastfeeding is normal, natural and necessary for optimal health.