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

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. 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 myelination57

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**38,59
- **antibodies for local infectious agents**54
- **contents based on time of day**60
- **fat, protein content with needs of the growing child**61

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.72 **Being neutral about breastfeeding is a lack of support.**

In babies, breast milk protects against:

- Sudden Infant Death Syndrome4-10
- High Blood Pressure11-13
- High Cholesterol14
- Cancer15,16
- 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 diabetes42,43
- Reduces pregnancy weight gain faster44,45
- Reduces depressive symptoms42,47-48
- Encourages bonding with the baby42
- Encourages nighttime sleeping49-52
- Postpones ovulation53

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1. Breast milk builds the immune system properly.
2. A breastfeeding child develops strong facial muscles, which align jaws and teeth.
3. Best Practices for Hospitals
4. Breastfeeding should be started as soon as possible after birth, even with cesareans.
5. Continuous touch, even with dad, encourages breastfeeding.
6. Breastfeeding on demand, even at night, right after the child is born helps to ensure that mothers will not run out of milk later.
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8. Lack of support is one of the top reasons that moms don’t breastfeed.
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. 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. Breast milk supplies the vitamins, minerals, nutrition and hydration that babies need. Formula populates the infant’s gut with pathogenic bacteria.

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. 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. 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.

Premature babies benefit from breastmilk

Breastmilk is the best medicine for all babies, including premature babies. A mother’s milk is specially designed to nourish her premature child, preventing infections, even death.

Breastfeeding is correlated with:

- Graduating from high school
- Emotional stability and secure attachment
- Positive mental health
- Increased intelligence
- Less substance abuse and addiction
- Better health

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 undermine 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 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 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-age-parenting-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)

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