# What's In Breast Milk?



American Academy of Pediatrics (AAP) recommends exclusive breastfeeding for the first six months and that breastfeeding continues for at least 12 months.

For babies, it can:

- protect against infections
- reduce the rates of later health problems including diabetes, obesity, and asthma.



For mothers:

- breastfeeding helps the uterus to contract and bleeding to cease more quickly after delivery.
- reduce the risk of breast and ovarian cancer
- provides a great way for mothers to bond with their babies.

Breast milk is ultimately the best source of nutrition for a new baby. Many components in breast milk help protect your baby against infection and disease. The proteins in breast milk are more easily digested than in formula or cow's milk. The calcium and iron in breast milk are also more easily absorbed.



# Nutrients Found in Breast Milk

## **Proteins**

Human milk contains two types of proteins: **whey** and **casein**. Approximately 60% is whey, while 40% is casein. This balance of the proteins allows for quick and easy digestion. If artificial milk, also called formula, has a greater percentage of casein, it will be more difficult for the baby to digest.

Approximately **60-80% of all protein in human milk is whey protein.** These proteins have great infection-protection properties.

Listed below are specific proteins that are found in breast milk and their benefits:

### Lactoferrin bits the grow

inhibits the growth of iron-dependent bacteria in the gastrointestinal tract

# Secretory IgA

- Protects the infant from viruses and bacteria
- It also helps to protect against E. Coli and possibly allergies
- Eating fish can help increase the amount of these proteins in your breast milk

### Bifidus factor

supports the growth of lactobacillus, a beneficial bacteria that protect the baby against harmful bacteria by creating an acidic environment where it cannot survive

### Lysozyme

- An enzyme that protects the infant against E. Coli and Salmonella
- It also promotes the growth of healthy intestinal flora and has anti-inflammatory functions

# **Fats**

- Human milk also contains fats that are essential for the health of your baby
- It is necessary for brain development, absorption of fat-soluble vitamins, and is a primary calorie source.
- Long-chain fatty acids are needed for brain, retina, and nervous system development



# Fat-soluble vitamins, including vitamins A, D, E, and K, are all vital to the infant's health. Water-soluble vitamins such as vitamin C, riboflavin, niacin, and pantothenic acid are also essential.

# Carbohydrates



- Lactose is the primary carbohydrate found in human milk
- Lactose helps to decrease a large number of unhealthy bacteria in the stomach, which improves the absorption of calcium, phosphorus, and magnesium. It helps to fight disease and promotes the growth of healthy bacteria in the stomach

Breast Milk is Best for Your Baby!

Breast milk has the perfect combination of proteins, fats, vitamins, and carbohydrates. There is nothing better for the health of your baby. Leukocytes are living cells that are only found in breast milk. They help fight infection. It is the antibodies, living cells, enzymes, and hormones that make breast milk ideal. These cannot be added to the formula. Though some women ultimately are not able to breastfeed, many who think they cannot actually are able to breastfeed. Lactation consultants are able to provide support to women learning to breastfeed. For those who are not able to breastfeed, milk banks or donor milk may be an alternative.

