

## Benefits of Breast-feeding

- Breast milk supplies immune system support through antibodies that bind to microbes in the baby's digestive tract and thereby prevent them from passing through the walls of the gut into the body's tissues.
- Breast milk components adhere to bacteria and viruses, thus keeping such microorganisms from attaching to mucosal surfaces.
- Breast milk increases the antimicrobial activity of immune cells called macrophages; these cells help to repair tissues that have been damaged by immune reactions in the baby's gut.
- Breast milk components disrupt membranes surrounding certain viruses and destroy them.
- Breast milk kills bacteria by disrupting their cell walls.
- Breast milk reduces the amount of vitamin B12 available in the gut, which bacteria in the digestive tract need in order to grow.
- Breast milk binds to iron, a mineral many bacteria need to survive. By reducing the available amount of iron, breast milk components (lactoferrin) thwart the growth of pathogenic bacteria.
- Breast milk promotes growth of *Lactobacillus* and other beneficial bacteria in the baby's gut. Growth of such nonpathogenic bacteria helps to crowd out other dangerous varieties.
- Breast milk stimulates the baby's digestive tract to mature more quickly. Once the initially "leaky" membranes lining the gut mature, infants become less vulnerable to microorganisms.