## Colostrum

A newborn drinking mother's first milk is receiving the most important nutrition of its life. In that milk is an extremely important and potent secretion called colostrum. Colostrum is a complex substance produced by all female mammals, including human, just before giving birth that goes into the first breast milk. Shortly after, the level of colostrum drops considerably, so that by the third day it is no longer produced. This nutrient-rich substance is packed with benefits for the newborn, as well as for adults.

Two of the most important components of colostrum for the newborn are its immune and growth factors. The immune system is the foundation for protecting the body. It is said that without the immune system, we would begin to die within a matter of a day. Newborns do not have fully developed immune systems, and so they are highly susceptible to a multitude of pathogens, antigens, and allergens. Colostrum provides all the immune factors needed to protect the newborn and to help it to develop a completely functioning immune system. Colostrum, used by adults, is in turn able to boost the body's natural immunity. The immune system, responsible for maintaining homeostasis throughout all systems of the body, must not only be established, but then must itself also be maintained and regulated so that it is always on the ready to go into action. In colostrum are a whole host of protective antibodies called immunoglobulins, immune system regulating peptides called lymphokines, and growth regulating peptides called IG (growth) factors.

The foundation of our immune system is already established before puberty, and is centered in the thymus. By age 13 our immune system is at its most potent; from that point on, the thymus begins to shrink, and continues to deteriorate the older we are. This is tied into aging. Colostrum IG factors have been demonstrated to be able to restore and maintain the health of the thymus. IG factors, of which only very small amounts are required, are potent hormones for the development of new cells throughout the body. This implies then that is possible with colostrum to slow down the aging process, and to regenerate tissues.

Colostrum also helps normalize the infant's intestinal tract. One carbohydrate component in it are the oligosaccharides, which go to aid the proliferation of friendly bacteria, which are vital intestinal inhabitants. Lysozyme, an enzymatic protein, and lactoferrin, an iron-binding protein, able to curb the growth of harmful intestinal bacteria, are also found in colostrum.

Other important nutrients in colostrum are lipids, including all the essential fatty acids, proteins, amino acids, vitamins, especially A, E, and B12, minerals, nucleotides (for RNA and DNA synthesis), and permeability factors, which allow the immune and growth factors to travel down the entire intestinal tract to be absorbed without being digested.

In addition to providing our immune system with a new lease on life, and rejuvenating growth factors for the production of healthy, new cells to prevent premature aging, colostrum has also been shown to help with numerous gastrointestinal disorders, such as "leaky gut," with tissue healing, repair of cartilage, and the rebuilding of muscle mass.

Colostrum for the health food market is produced from cows just having given birth at the critical time of their first milking. Bovine colostrum, not to be confused with milk, is very compatible with the needs of the human body. Our colostrum is of the strongest grade, taken from northern, healthy, grass-fed cows raised by organic standards, without antibiotics. This strong grade of colostrum is taken during the first 6 hours after the birth of the calf, when it is at its most potent.