

**Colostrum** is the first milk produced by mothers of mammals and is of great essence for the health and survival of the new born baby.  
(A passive immunity transfer from the mother to the baby)

**Bovine colostrum (BC)** has **96 immune factors** and **transferable antibodies** and **86 growth factors** (to generate and mature the gut).

*A greater concentration than those in human colostrum.*

This is nature's gift for the **young ones** to grow as well as for the **treatment of many health problems in the older age group.**

There is emerging evidence that (BC) may be one of the promising **nutraceuticals** (a term combining the words "nutrition" and "pharmaceuticals")

*It has incredible immune-balancing benefits.*

which can prevent or mitigate various diseases in **new borns and adults.**

Colostrum introduces **immunoglobulins** from the mother to the infant and turns on the child's immune system.

The main actions include an **antibacterial effect** and modulation of **the immune response.**

*The most powerful compound in colostrum is called lactoferrin.*

*By consuming (BC) you will earn the immune tools that cows use to beat candida.*

Salmonella, E. coli, listeria, staphylococcus, clostridium and **candida albicans** are dangerous pathogens **to the human body.**

Colostrum produced by lactating mothers contains particularly high levels of **lactoferrin a multi-functional glycoprotein.**

Lactoferrin which acts as a potent antimicrobial is already being used by the **human body.**

**Lactoferrin** is a major component of the immune system and has been found to offer **antioxidant and anti-inflammatory** effects.

*Colostrum oligosaccharides are known to exhibit **prebiotic** and **immunomodulatory** properties.*

**DNA synthesis, fat utilization and increased mental acuity.**

Generate a robust **gut lining and seal up the digestive system** so that the baby can fully absorb other foods without developing **food allergies and leaky gut.**

The main actions include an **antibacterial effect** and modulation of **the immune response.**

*"The concentration of **ten amino acids in bovine colostrum** and milk has been determined.*

The colostrum collected within 1 hr. after parturition is higher in total protein than the 24-hr composite sample and thus contained larger amounts of the ten amino acids. The amino acid composition of the colostrum, based on total proteins, is similar. No essential difference was obtained in the amino acid composition of the proteins of milk collected at the 60th and 90th days of lactation. Data on the output of ten amino acids in colostrum and milk has been calculated and the approximate ingestion of these amino acids by the calf has been computed".

The Amino Acid Composition of Bovine Colostrum and Milk [1] and [2]. Available from:  
<https://www.researchgate.net/publication/250202938> Accessed Aug 01 2018.

***Disclaimer:*** The information contained on this diagram is intended for educational purposes only and is not a substitute for advice, diagnosis or treatment by a licensed physician. It is not meant to cover all possible precautions, drug interactions, circumstances or adverse effects.

**DOSAGE**

The usual daily dosages of the commercially available BCC preparation, **10 - 20 g daily**, but higher dosages can be used in the majority of patients because of the low incidence of intolerance problems.

Because Colostrum is an extremely safe functional whole food the **dosage can be increased to a few tablespoons per day.**

The **bigger the dosage** the **more immune factors and lactoferrin** will be going to work in your body to suppress pathogens and multiply your immunity.

**Lactoferrin** is said to:

- **stimulate the immune system,**
- **treat iron deficiency,** may enhance iron status in **infants** and **pregnant women.**  
It is thought that Lactoferrin **improves the status of iron by promoting the absorption of iron in the intestines,** as well as aiding the **delivery of iron to your cells.**
- **slow up the aging process,**
- **promote the growth of probiotic bacteria,**
- **aid in cancer prevention.**
- There's some evidence that lactoferrin may **inhibit [hepatitis C](#)** infection.
- may help protect against **[Helicobacter pylori](#) infection.**  
(a type of infection known to cause ulcers).
- **Preliminary research** suggests that lactoferrin may help boost bone-building and aid in the **[prevention of osteoporosis.](#)**
- Show promise to **protect against a sexually transmitted virus** known to cause **[genital warts](#)** and contribute to the development of **[cervical cancer.](#)**
- Offer virus-fighting effects that may help destroy the **[flu virus.](#)**

**Colostrum is, by far, the highest natural source of lactoferrin.**

*If you are supplementing at least **a tablespoon of colostrum powder per day,** you should be getting sufficient concentrations of lactoferrin.*

The effects of bovine colostrum on **Athletic performance**

has the ability to increase stamina and endurance.

Thus, colostrum supplementation may have benefit in **enhancing athletic performance and preventing heat stroke.**

- Supplementing with **20 grams per day** in **combination with exercise training** was shown Bovine colostrum supplementation during training **significantly increased peak anaerobic power** but had no effect on anaerobic work capacity **(Journal of Sports Science to increase bone and lean muscle mass** in active men and women after a period of eight weeks. (Nutrition, 2001), 2003)
- In a randomized, double-blind placebo study, **51 active males received 8 weeks of training while consuming either 60 grams per day of bovine colostrum or 60 grams per day of whey protein powder.**  
**Vertical jump performance in the colostrum group increased 3.0 cm,**  
**but only 1.3 cm in the whey protein group.**  
**(2000 Pre-Olympic Congress, Sports Medicine and Physical Education, International Congress on Sport Science, Brisbane, Australia)**
- **Cyclists** using colostrum **performed at a higher level with fewer signs of fatigue during tests taken after their 5 days of intensive training.**
- Bovine colostrum supplementation **at 20 grams or 60 grams per day provided an improvement in time trial performance in cyclists after a 2 hour ride** at 65% VO2 max.
- Improvements in performance times were: 37 seconds faster for placebo group, **134 seconds faster for the 20 grams per day colostrum group, and 158 seconds faster for the 60 grams per day colostrum group**  
**(Medicine and Science in Sports and Exercise, 2002)**
- Skeletal muscle is able to repair itself through regeneration. However, **an injured muscle often does not fully recover its strength because the process is hindered.** IGF-1 **can improve muscle healing and regenerations** (Muscle and Nerve, 2003)
- **After 8 weeks of colostrum supplementation, elite field hockey players improved significantly in the 5 x 10 meters sprint, compared to the whey fed group.**  
**(Paper presented at NSCA National Conference and Exhibition, Orlando, 2000)**
- (BC) demonstrates **muscle building effects when paired with resistance training.**

## **Auto-immune diseases**

**Lessening the whole auto-immune reaction.**

Experts now believe that **leaky gut syndrome**, which is not considered a disease itself, plays a significant role in autoimmune diseases like

**lupus, rheumatoid arthritis, multiple sclerosis, diabetes, fibromyalgia, scleroderma and others.**

"This compromised intestinal barrier means compromised immunity, since infectious pathogens (including bacteria, viruses, yeasts, and fungi) as well as allergens can move through these enlarged holes within the intestinal wall and take up residence in your body" ( by John Balmier, MS)

**In the case of adult humans, colostrum works to regenerate the digestive lining.** When you have **leaky gut, food allergies** or **any auto-immune disease**, you are dealing with a TH2 cytokine response.

TH2 cytokines are the white blood immune cells that are attacking and damaging your fragile **gut lining.**

**While this is still happening**, you will never heal leaky gut allergies or any auto-immune disease.

These representative studies indicate that colostrum can provide support for individuals with auto-immune disease. Colostrum may potentially slow or stop the progression of the auto-immune disease, by healing injury in the gastro-intestinal tract and eliminating the leaky gut connection to the disease. Scientific research and clinical studies show evidence of the powerful immune and growth components in colostrum which can regulate the overactive immune response as well as heal tissue damage caused by autoimmune disease. (by John Balmier, MS)

**(Patients with fibromyalgia have low tissue levels of magnesium - even supplementing with magnesium, these patients have low tissue levels of magnesium.)**

There is a vast overlap between the signs and symptoms of **fibromyalgia** and those of **chronic fatigue syndrome**. A combination of these two diseases, which are characterized by widespread **musculoskeletal pain, stiffness and fatigue**. More often than not, there is also a pattern of **sleep disturbance** which accompanies these problems

According to Dr. Donald Henderson, a highly-respected gastroenterologist, "Colostrum is the ideal solution for leaky gut syndrome. Because colostrum reaches the gut while its components are still viable, its immunoglobulins and other immune factors can attack the offending pathogens in the intestines and prevent them from causing damage. 4

Colostrum contains **Colostrinin**, a powerful immune modulator **which can help tone down the over-active immune response** found in auto-immune diseases. It acts by preventing the overproduction of lymphocytes and stimulating the production of helper and suppressor T cells.10,17,22

**Transforming growth factor (TGF)**, found in two forms in colostrum, can help reverse protein breakdown and stimulate tissue repair. Insulin-like growth factor (**IGF- 1**) Insulin-like growth factor (IGF- 1) can help **stimulate glucose transport in diabetic** patients. 19 Colostrum growth factors have anti-inflammatory action and also help repair damaged cells in the lining of the gastro-intestinal tract, which **decreases cellular spacing and prevents further leakage of toxins** into the body.

Colostrum naturally contains **EGF**, which research shows can actually help grow and repair intestinal tissue." In a clinical study reported by Drs. Alejandro and Fabiola Nitsch, MD, from the University of San Carlos, Guatemala Medical School, colostrum-derived protein derivatives, termed "Infopeptides" by Dr. Nitsch, have been shown to reduce inflammation, edema, pain and fever in a variety of conditions. When these Infopeptides were tried on patients suffering from chronic rheumatoid arthritis as well as therapy resistant osteo-arthritis, patients experienced significant improvement and sustained benefit with prolonged therapy. Dr. Nitsch also pointed out that the benefits of such a treatment regimen are low cost, oral administration, and the absence of side effects.9

**Colostrinin** (also known as CLN, proline-rich polypeptides or PRP) is a naturally occurring mixture of proline-rich polypeptides derived from colostrum. **(Colostrum contains PRPs (Proline-rich peptides); also known as Colostrinin)** Scientists at St. George's University had already demonstrated that colostrinin, a proline-rich polypeptide isolated from colostrum, can effectively treat **Alzheimer's disease** patients.