New Studies Continue to Reveal the Health Benefits of Colostrum

by Barbara L. Minton (see all articles by this author) View Organic Colostrum and more information here.

(NaturalNews) Colostrum is the thin yellowish fluid produced during the first few milkings of a mammal after she has given birth. It is the carrier of the immunities that are transferred from mother to infant, and one of the reasons breast feeding is so important to the health of children. Colostrum contains an abundance of nutrients, including growth factors, lipidic and glucidic factors, oligosaccharides, antimicrobials, cytokines and nucleoside. It is rich in immunoglobulins which are certain types of protein involved in promoting the immune system and fighting germs.

Bovine colostrum is identical in molecular structure to the colostrum of humans. Many human health benefits have been attributed to bovine colostrum including: increased energy levels, lower risks of upper respiratory illnesses, reduced risk of intestinal damage from anti-inflammatory drugs, increased ability of the body to burn fat and increase muscle, acceleration of injury healing, and increased vitality and stamina. Bovine colostrum is also believed to have significant anti-aging properties and is seen to promote longevity. Three recent studies have supported the beneficial effects of bovine colostrum.

Results of Recent Studies of Bovine Colostrum

The January 8, 2002 edition of *Bioscience, Biotechnology, Biochemistry* reports that although many colostrum-based nutritional supplements have been developed as growth promoters, few studies have investigated their functional effects. To accomplish this, a bovine colostrums fraction, Growth Protein-Colostrum (GP-C), was administered to juvenile rats as a dietary supplement to determine its effects on growth and development.

Results indicate that GP-C enhanced the growth and mineralization of the femur as evidenced by increased serum osteocalcin and bone mineral density with the conclusion that bovine colostrum contains components capable of promoting bone formation and inhibiting bone re-absorption, supporting its function in growth promotion. Based on the findings, researchers hypothesized that a colostrum-based dietary supplement enhances bone growth and development in humans.

The October, 2007 edition of *New Microbiology* reports an investigation of the immunomodulatory effects of bovine colostrum on human peripheral blood mononuclear cells (PBMC) from healthy donors. Researchers focused on the production of cytokines involved in the successful immune response toward intracellular pathogens, such as bacteria and viruses. Bovine colostrums induced a dose dependent production or stimulation of the cytokines.

PBMC proliferation was substantially unaffected by the bovine colostrum. Researchers concluded that the promoting activity of bovine colostrum could contribute to the protective effect of this colostrum on the offspring. Based on these findings, researchers hypothesized that bovine colostrum could represent an inexpensive therapeutic tool in prevention and treatment of several human microbial infections, including influenza.

The September, 2007 edition of *Dairy Science* reports a survey of bovine colostrums composition and management completed with sample and data collection from 55 dairy farms in Pennsylvania. Colostrum samples were analyzed for fat, protein, lactose, total solids, ash, Ig, lactoferrin, water and fat soluble vitamins, and minerals.

Mean percentages of fat, protein, and lactose in colostrums were 6.7, 14.9, and 2.5 respectively. Concentrations of IGG1, IgG2, IgA, IgM, and lactoferrin were 35.0, 6.0, 1.7 4.3 and 0.8 mg/ml, respectively. Mean concentrations of fat-soluble vitamins, including retinol, tocopherol, and beta-carotene, were 4.9, 2.9, and 0.7 microg/g, respectively. Mean concentrations of water soluble vitamins were 0.34, 0.90, 4.55, 0.60, 0.15, 0.21, and 0.04 microg/ml for niacin, thiamine, riboflavin, vitamin B12, pyridoxal, pyridoxamine, and pyridoxine, respectively. Mean concentrations (mg/kg) of selected minerals in colostrum were: Ca 4,716; P 4,452; Mg 733; Na 1,058; K 2,845; Zn 38; Fe 5.3; Cu 0.3; S 2,595; and Mn 0.1. The findings of this study revealed that the mean concentrations of most nutrients found in colostrums have increased over values previously reported.

Results of Bovine Colostrum Studies on Athletic Performance

The *Journal of Sports Medicine*, September, 2006, reports that bovine colostrums helped male distance cyclists retain more energy following a bout of intensive training. These cyclists who used bovine colostrums performed at a higher level with fewer signs of fatigue during tests taken after their five days of intensive training.

The *European Journal of Nutrition*, August, 2003, reports an investigation of whether concentrated bovine colostrum affected the incidence or duration of self-reported symptoms of upper respiratory tract infections in adult males. Based on self-reports in a double blind, placebo controlled study, preliminary evidence was found that concentrated bovine colostrum protein may enhance resistance to the development of symptoms of upper respiratory tract infection.

The *Journal of Sports Science*, July, 2003 reports a study examining the effects of bovine colostrum on peak vertical jump power, peak cycle power, alactic anaerobic work capacity, resistance exercise one-repetition maxima, and plasma insulin-like growth factor (IGF-1) concentrations.

This randomized, double-blind, placebo, controlled, parallel design study concluded that bovine colostrum supplementation during training significantly increased peak anaerobic power, but had no effect on alactic anaerobic work capacity.

Bovine Colostrums and Distal Colitis

The *Ailmentary Pharmacology and Therapeutics*, November, 2002, reports a study designed to examine the efficacy of colostrum enemas in the treatment of distal colitis during a randomized, double-blind, controlled protocol. Fourteen patients with a mean age of 45 and mild to moderately severe distal colitis, were given colostrum enema or placebo for 4 weeks. Both groups also received mesalazine initially or as an increased dosage. After the 4 weeks, the colostrum group showed a mean reduction in symptoms of -2.9, while the placebo group showed a mean response of +0.5. Researchers concluded that bovine colostrums enema shows potential as a novel therapy for left-sided colitis with additional benefits over using mesalazine alone.

Bovine Colostrums and Drug-Induced Intestinal Permeability

The June, 2001 edition of *Clinical Science* reports that the use of non-steroidal anti-inflammatory drugs (NSAIDs) cause gastrointestinal injury. Bovine colostrum is a cheap, readily available source of growth factors, which reduces gastrointestinal injury in rats and mice. Researchers hypothesized that colostrum could reduce the rise in gut permeability caused by NSAIDs in volunteers and patients taking NSAIDs for clinical reasons. Two studies were performed, the first on the healthy volunteers, and the second on the NSAIDs patients. In the first group, no increased gut permeability was seen when colostrum was co-administered with NSAID indomethacin. Indomethacin alone caused a 3-fold increase in gut permeability. In the second group, permeability was not influenced by co-administration of test solutions. Researchers concluded that bovine colostrum may provide a novel approach to the prevention of NSAID induced gastrointestinal damage in humans.

Other Research Results

Other studies have shown that supplementation with bovine colostrum in combination with exercise training for 8 weeks may increase bone-free lean body mass in active men and women.

Candida colonization was reduced with administration of bovine colostrum supplementation in bone marrow transplant recipients.

Treatment of refactory diarrhea with bovine colostrum resulted in a complete or partial remission of the diarrhea in HIV positive patients with chronic diarrhea.

Bovine Colostrum Side Effects

Colostrum is food and should be thought of as such. There have been no significant side effects from supplementation with bovine colostrum reported in the literature. Although colostrum contains lactose, the amount is small. It depends on the degree of lactose intolerance and the amount of colostrum ingested whether symptoms will appear in the lactose intolerant.

Buying and Supplementing With Bovine Colostrum

You can get raw colostrum from your local dairy farmer. It needs to be refrigerated and consumed within a reasonably short time. Raw colostrum differs from processed colostrum because its immune factors come from just one cow. Processed colostrum comes from a pool of hundreds or thousands of cows and provides a broad spectrum of immune factors.

Choose colostrum from pasture-fed cows. They have a higher range of immunities. Be sure your colostrum comes from animals that are pesticide, antibiotic and rBST free, and is processed with very low heat. The compression used to create tablets will cause the colostrum to be exposed to excessive heat, so buy colostrum only in powdered form or in capsules.

You will want colostrum to reach your small intestine intact, without damage from saliva and stomach acids. So take it on an empty stomach with a good amount of water. Colostrum should be collected during the first 24 hours after birth, while it has its peak concentrations of immune and growth factors as well as digestive inhibitors.

Start with a large dose and continue until you feel you have had enough. Then reduce the dose to a maintenance level. Colostrum is food, so consume it until you are satisfied you have had enough.

If you are vegetarian, you may be interested to know that the Rishis (India's spiritual leaders) vegan diet has included colostrum for thousands of years.

And if you are feeling guilty consuming colostrum and image a poor calf going without, you can rest easy. The calf always gets the first few hours of colostrum. The herd owners want to ensure that their calves grow strong and thrive.

About the author

Barbara is a school psychologist, a published author in the area of personal finance, a breast cancer survivor using "alternative" treatments, a born existentialist, and a student of nature and all things natural.