

## Five Proven Benefits of Colostrum (Transfer Factor)

Transfer Factor is designed principally for humans, but many pet owners have had some impressive successes in healing their pets with Colostrum. In fact science has now found that colostrum is beneficial for five specific dog and cat health conditions: Protecting against anti-inflammatory medication side-effects (steroids and NSAIDs), inflammatory bowel disease, Immune Supportive Benefits, Weight Loss and Allergies.

### **What is It?**

Colostrum is the mother's first milk – and vitally important to keeping young animals healthy.

This special substance offers the newborn, several powerful immune enhancing properties.

Immunoglobulins (Ig's) function as antibodies and are generated by the body in response to foreign substances (antigens) such as infectious microbes.

Lactoferrin is an iron-binding whey protein found in the milk of most mammals. It contains 703 amino acids. Lactoferrin is able to bind to disease-causing agents invading the body. It appears to play several biological roles. Owing to its iron-binding properties, it appears to be the source of iron and has antibacterial, antiviral, antifungal, anti-inflammatory, antioxidant and immunomodulatory activities (meaning it modulates the immune system).

Lysozyme is an enzyme, commonly referred to as the body's own antibiotic. It is abundantly present in secretions such as tear ducts, milk and colostrum. It has the ability to destroy cell walls of certain bacteria. It is able to catalyse the inactivation of a wide range of micro-organisms.

Lactoperoxidase is an enzyme present in colostrum. It possesses its own antimicrobial properties against gram-positive organisms and exhibits pH dependent bactericidal action against gram-negative organisms.

Growth Factors are substances made by the body that function to regulate cell division and cell survival.

The growth factors found in bovine colostrum include:

IGF 1 and 2 (insulin like growth factor) These growth factors are the most prevalent in colostrum and the body and is key in the reproduction of our bodies cellular tissue, this assist athletes in recovery times after events as well as after injury.

Being an IGF-rich supplement it promotes a healthy gut through turnover of the intestinal lining, increased uptake of dietary components and increased immunological performance. Gut micro flora play a vital role in digestion, nutrient absorption and immune function. If there is an imbalance in the intestinal micro flora this may upset the digestive process and impact on the immune system, the use of Colostrum can keep your gut at optimal function.

**Here are the 5 most important health benefits with scientific studies to back them up.**

### **1. Protecting against anti-inflammatory medication side effects**

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Colostrum and milk-derived peptide growth factors for the treatment of gastrointestinal disorders  
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American Journal of Clinical Nutrition, Vol. 72, No. 1, 5-14, July 2000  
2000 American Society for Clinical Nutrition

Raymond J Playford, Christopher E Macdonald and Wendy S Johnson

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Nonsteroidal antiinflammatory drug-induced gut injury  
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Nonsteroidal antiinflammatory drugs (NSAIDs) are widely prescribed for the treatment of musculoskeletal injury and chronic arthritic conditions. Nevertheless, 2% of subjects taking NSAIDs for one year suffer from gastrointestinal adverse effects, including bleeding, perforation, and stricture formation of the stomach and intestine .

Acid suppressants and prostaglandin analogues have been shown to be effective in reducing gastric injury induced by NSAIDs but are less effective in preventing small intestinal injury. Novel therapeutic approaches to deal with these problems, such as the use of recombinant peptides, are therefore still required.

A recent series of in vivo and in vitro studies support this idea; EGF and TGF- $\alpha$  and TGF- $\beta$  have all been shown to reduce NSAID-induced gastric injury.

The beneficial effects of recombinant growth factors on NSAID-induced small and large intestinal injury is, however, less well documented. It was shown recently that a defatted colostrum preparation, which is rich in the growth factors discussed earlier, reduced NSAID-induced gastric and intestinal injury in rats and mice . This material was also shown to effectively reduce gastric erosions in human volunteers taking NSAIDs (J Hunter, personal communication, 1998).

Further support for this approach comes from our recent finding that this defatted colostrum preparation reduced small intestinal permeability, which was used as a marker of intestinal damage in human volunteers taking clinically relevant doses of the drug indomethacin.

Clinical trials involving patients taking NSAIDs long term are under way.

## **2. Inflammatory Bowel Disease**

Studies examining the effect of administration of EGF, PDGF, TGF- $\beta$  or IGF-I in animal models of colitis have had encouraging results, and a cheese whey growth factor extract containing several of these growth factors had positive results in a similar model.

## **3. Many Immune Supportive Benefits**

Veterinary nutraceutical medicine

Craig Taillon, Alan Andreasen

Can Vet J Volume 41, March 2000

Colostrum is used as a nutraceutical treatment for animals of all ages to increase resistance to infection and disease caused by a wide range of pathogens, including bacteria, viruses, parasites, and fungi. It is also used for applications such as healing of intestinal lesions and increasing the absorption of nutrients from the gastrointestinal (GI) tract.

The components of colostrum that convey its nutraceutical properties are nearly identical in structure and function among different species (11-13). This means that colostrum from one species

can be used effectively to provide benefits to animals of other species. Bovine colostrum is used in nutraceutical medicine due to the relative ease with which large amounts can be collected and processed, and its proven effectiveness when used to treat a variety of species.

Some of the highlights from their paper:

Increase resistance to infection, heal wounds, bind iron in the intestinal, kill pathogens in the intestinal tract.

Immunoglobulins are in high concentrations - good for killing pathogens in the GI tract- bacteria, viruses, fungi, parasites.

Many pathogenic bacteria require iron to grow - a component of colostrums called lactoferrin binds the iron, and moves it into the intestinal tract.

It may attach to viruses, bacteria, weakening them and trigger the immune system.

Certain components of colostrum, called cytokines, ( ie IL 1, 2 and 6) increase and enhance B cell and T cell production.

Also contains growth factors, such as somatomedins, positively affect the intestinal cells, stimulating wound healing, increased absorption of electrolytes and nutrients.

Enhances immune function, prophylactic to prevent and treat disease, reduce the length and severity of established infections.

#### **4. Weight Loss**

Colostrum supplementation has been shown to help increase lean body mass. Lean mass gains lead to increases in basal metabolic rate (BMR), or the energy your body needs for all its functions, such as breathing, circulating blood, hormone level adjustment and growing and repairing cells. Increased energy expenditure increases weight loss. Colostrum has a role to play in weight loss.

Dosage

Shing, et al., suggest that 20 to 50 grams a day of colostrum, combined with other high-quality proteins, such as whey and casein, yield the greatest benefits.

#### **5. Allergies**

Research has found an ingredient known as praline-rich polypeptide (PRP) in bovine colostrum; it appears to be what is helping decrease the allergy symptoms.