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## **Colostrum Frequently Asked Questions (FAQ's)**

### **Can children take colostrum?**

Absolutely. Colostrum can help growing children in many ways, from better concentration, increased memory plus children have a higher tendency to catch colds and illness from other schoolmates and colostrum will help immensely.

### **Can I take colostrum with other supplements and medications?**

Colostrum actually helps your body and works to regulate your body's absorption rates. Colostrum heals the digestive tract so well that all substances eaten internally (food, herbs, natural healing substances, and medications) will become more bioavailability to the body. Although colostrum has no known drug interactions, you may find that the other supplements and medications that you are taking could have a more pronounced effect.

### **Do the immunoglobulins and growth factors in colostrum survive pasteurisation?**

Tests have been carried out on colostrum (which is flash pasteurised at 72§ C for 15 seconds) show that the colostrum retains its bioactivity during this process.

### **How Does Colostrum Differ From Plain Milk?**

Colostrum not only contains all the goodness of milk but also contains significant levels of growth promoting and disease fighting substances commonly referred to as growth factors, immune factors and immunoglobulins. These substances are also present in milk but at negligible levels. Further, colostrum has a much higher protein, vitamin, mineral content and is lower in lactose.

### **How does colostrum interact with other medicines and supplements?**

Colostrum actually helps your body and works to regulate your body's absorption rates. In effect you will be getting more bang for your buck with everything you consume whether its water, supplements and food. You will be getting greater benefits since your body will be able to utilize them more. You may even find that you don't need to take as much as normal since your body is able to absorb all the nutrients. No known contraindications with colostrum use with medications or supplements.

Colostrum is a food.

### **How does colostrum produce the anti-aging results?**

Colostrum works with your body to utilize its natural substances and increases your overall health. After puberty our body begins slowing down the production of growth hormones. These hormones are necessary for the reproduction of virtually all of our body cellular tissue. It has been shown that by age 80 we are producing virtually no growth hormones, and so we age and die. Colostrums growth factors are the actual hormones that stimulate the normal reproduction of body cellular tissue. Normal reproduction means just that (normal) not aged, cancerous, wrinkled, or weakened. The New England Journal of Medicine (a few years back) stated that the most effective anti-aging process would be simply the replacement of growth hormones at proper levels to slow, possibly stop and even reverse the aging processes.

### **How Does Colostrum Work?**

The main function in the newborn is in the form of transfer of passive immunity from the mother to the child. The mother has been exposed to a variety of environmental factors and organisms to which her immune system has produced antibodies during her lifetime. In transfer of passive immunity the mother passes on her complement of antibodies to these various factors onto her offspring. In humans and apes the mother passively immunises her young in utero by passage of antibodies through the placenta. In animals where maternal antibodies do not pass the placental barrier (horses, cattle, pigs, and sheep) the young are passively immunised immediately after birth by way of colostrum. In these species the maternal antibodies present in the colostrum are absorbed directly through the gut in the first

few days following birth.

**How much colostrum should I take?**

The amount of colostrum you take varies from person to person. The label suggests 2 to 3 capsules twice daily, but if your recovering from an injury you may want to start off taking more than this. Also, if you feel a cold or flu coming on you may want to up your dosage to help you recover quicker and relieve your symptoms.

**I am vegetarian and I do not eat animal food.**

Colostrum is neither animal nor vegetable. We take very good care of our cattle and make sure they are healthy and live a long happy life. Mother Nature produced colostrum for every mammal on Earth and it is by far the healthiest choice. With that said, the choice is completely yours.

**I don't want to take colostrum away from the baby calf's that need it!**

Don't worry, we don't deprive calves of their colostrum. Calves need it as much as any mammal and many calves would die without it. We make sure the calves get their fill first and then we take the remainder.

**Is Bovine Colostrum Safe?**

Bovine colostrums have been used for years as a food supplement, its use and safety is well documented. Colostrum is completely safe; it has no negative side effects and is a whole and natural food that can be consumed in ANY quantity. There are absolutely no toxicity levels. Further the manufacture and use of dairy products, and their associated safety and nutritional benefits is also well known. Through quality control management of the entire manufacturing process, from collection of the colostrum, through to packaging and storage, ensures the colostrum is delivered in perfect condition, certified to be fit for human consumption.

**Should Colostrum be pasteurised?**

Absolutely! Cow manure can easily splash onto the udders contaminating them with E-coli, salmonella and other pathogenic bacteria. This creates the potential for contamination of dairy products.

Dairy products (for human consumption) must be pasteurised to kill these pathogens. There are two ways of

pasteurising colostrum - the optimal flash (15 second) pasteurisation and a slow 30-minute vat process. Flash pasteurisation uses the expensive, high-tech equipment found in the modern dairy that does not denature the colostrum. With the less expensive, 30-minute pasteurisation process, a huge vat of colostrum is heated from the outside. It takes a long time to heat a large kettle of colostrum to the required temperature. During this interval, bacteria grow in the colostrum.

As the bacteria feed upon the colostrum, it denatures and destroys its effectiveness. Most colostrum that is being sold to the public today has been prepared for the animal feed market and has not been pasteurised. Colostrum is pasteurised to the most demanding of International Standards - 72°C for 15 seconds - to ensure the highest microbiological quality.

### **Should I be taking colostrum if I am pregnant?**

Colostrum definitely won't hurt you or your fetus, but as always with anything you take during pregnancy you should check with your health care professional first.. Colostrum will help to supplement your immune system which suffers during child birth, it will help you recover faster and it will also help you to lose those extra pounds quicker associated with pregnancy.

### **What about my pets? Can they benefit from colostrum?**

Yes! As a matter of fact, most pets love colostrum. Bovine colostrum is not species specific, dogs and cats will gain many health benefits from colostrum.

### **What are Antibodies?**

Antibodies are very specialized molecules that are produced by the body's immune system. They are produced in response to the host being exposed to an immunogenic or foreign substance (antigen) such as an infectious microbe. Their action is to ward off and or neutralise potentially disease-causing agents. A very important feature of antibodies is that they are directed specifically to their antigen that induced their formation.

### **What are growth factors?**

Growth factors are very small bio-active molecules which

promote growth and maturation of various cell types and tissues. They are found in very high concentrations in colostrum. They not only stimulate normal growth and development but also help regenerate and accelerate the repair of aged or injured muscle, skin, bone, cartilage and nerve tissues. Growth factors also stimulate the body to burn fat for fuel instead of muscle tissue in times of fasting or dieting. They also help build lean muscle and have been shown to have a positive effect on athletic performance.

### **What are Immune Factors?**

In addition to immunoglobulins there are other substances in colostrum that have an immune function. Collectively they have been termed "Immune Factors". Their function is to complement the various functions associated with the immune response

### **What are Immunoglobulins?**

The immunoglobulins are a group of specialised bio-active proteins or molecules found in serum and other tissue fluids, including the milk of all mammals. There are five classes of immunoglobulin that are recognised in mammals Immunoglobulin G (IgG), Immunoglobulin A (IgA), Immunoglobulin M (IgM), Immunoglobulin E (IgE), and Immunoglobulin D (IgD).

The function of these molecules is to bind to invading organisms and to activate specific actions that help prevent to prevent infection and to rid the body of disease causing agents. They function in cell killing, inflammation and prevention of bacterial and viral attachment. The most prevalent class of immunoglobulin in all species is IgG. Immunoglobulins have an integral role in the immune defence system in that they form antibodies.

### **What if I'm a sports person?**

Sports people's bodies need optimum nutrition and they frequently injure themselves when playing so colostrum is vital, both for optimum and faster rates of healing after injury.

### **What if I'm lactose intolerant?**

The amount of lactose in colostrum is scant - 163 mg. in two capsules compared to 13,000 mg. in one 8-oz of milk.

Any discomfort would more likely be a sign that colostrum is healing the digestive tract.

### **What if I'm over weight?**

Colostrum is great for making the body work more effectively, which makes weight loss easier.

### **What is Colostrum?**

Colostrum is the first food for growth and immunity; it is the pre-milk or rather the first lacteal secretion that is produced by the mother in all mammals immediately following the birth of her young. Colostrum is frequently referred to as “life's first food”. It not only supports life but also makes it flourish. Colostrum is produced in the first few days following the birth of the newborn. Colostrum is a non-toxic, non-allergenic food supplement that has no known negative interactions with drugs, food or other supplements.

Each drop contains the promise of life: the immunoglobulins, growth factors, antibodies, vitamins, minerals, enzymes, amino acids, and other substances designed to provide the body with the ability to face a lifetime of invasion by micro-organisms and environmental toxins. Colostrum is a non-toxic, non-allergenic food supplement that has no negative interactions with drugs, food or other supplements.

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### **What is Immuno-Supplementation?**

Local protection in the form of immuno-supplementation with bovine antibodies has been shown to be an effective means of providing local protection to the gastrointestinal tract against disease.

Bovine immunoglobulin in the form of antibodies, both specific and non-specific, has been shown to be effective against various diseases. In trials it has been successfully shown that specific antibodies in bovine milk are effective against both enteropathogenic and

enterotoxigenic Escherichia coli, cryptosporidium, rotavirus, and Shigella flexneri.

### **What is Passive Immunity?**

In all species of mammals the transfer of passive immunity occurs where the mother passes on her complement of antibodies to her young. In the case of the newborn this helps in protecting the young against potentially pathogen agents until the time it's own immune system is sufficiently developed to ward off infection on its own.

### **What is Passive Local Protection?**

In humans passive transmission of immunity occurs prior to birth and thus a newborn human baby at birth is born with a complement of maternal antibodies. After birth the antibodies present in human colostrum and milk function in local protection of the gut. In animals like the horse, cow, sheep, and goat passive transmission of maternal antibodies occurs in the first 20-48 hours following birth by way of colostrum.

During this time the newborn animal absorbs intact maternal antibodies present in the colostrum directly through the digestive tract. After the first few days the animal's digestive tract matures (gut closure) and the direct adsorption of intact antibody ceases. At this point any antibodies present in the colostrum and milk act in local protection of the gastrointestinal (GI) tract.

### **What is the Adaptive Immune System?**

The adaptive immune system produces a specific response in response to an infective agent. This specific response is in the form of antibodies, which are produced to neutralize the invading agent.

A very important feature of the adaptive immune system is that it involves memory, in that gives rise to resistance to repeated exposure or infection by the same invading agent. The importance of this memory factor is seen in childhood diseases such as Chicken Pox, Measles, and Mumps in which the adaptive immune system produces a life-long immunity following infection.

### **What is the Immune System?**

The immune system is a natural defence mechanism by

which the body fights infection. It is divided into two functional systems, the innate and adaptive immune systems.

### **What is the Innate Immune System?**

This is the first line of defence by which the host combats infectious agents and pathogenic microbes. This is non-specific response, which proves effective against most infective agents. The skin is part of the innate immune system as it acts as a preventive barrier to most infective agents.

### **When is colostrum collected?**

The first colostrum collected after birth is reserved for the newborn calf. New Image colostrum is collected within first 36 hours.

### **Why Bovine Colostrum?**

Interestingly, bovine colostrum is the only form of colostrum that is not species specific. In other words, it contains all of the immune and growth factors found in all other sources and thus it can significantly benefit all other mammals, including humans of course.

Because calves are born without any immunity to airborne, disease-causing organisms, their mothers colostrum must contain a very large amount of immune and health factors. As a result bovine colostrum has 10 - 21 times the factors of human colostrum, making it the richest source of colostrum available.

### **Why Can't I Get Colostrum From A Local Farmer?**

You can. It needs to be refrigerated and consumed before it spoils. Raw colostrum is not pasteurised and contains immune factors from just one cow. This differs from processed colostrum, which is concentrated and provides a broad base of immune factors that have been pooled from hundreds and sometimes thousands of cows.

### **Why do I need colostrum, as an adult?**

Once puberty has passed, our bodies begin the aging process by gradually producing less of the immune and growth factors that help us fight off disease and heal damaged body tissue. Colostrum is the only natural source of these life-giving components.

### **Why is Colostrum Important?**

Colostrum is the first food that is available to the newborn. It is not only highly nutritious but also contains substances (immunoglobulins and immune factors) that help to stimulate and augment the newborn's immune system thus helping to protect the vulnerable newborn from its new potentially harmful environment (passive transmission of immunity). Further it contains substances (growth factors and cytokines) which act to stimulate the development, maturation and proliferation of various tissues and organs.

The significance of colostrum is best illustrated in farm animals, such as the horse, cow, goat, sheep and pig. In these animals passive transmission of immunity occurs after birth in the form of colostrum. If these animals do not receive colostrum in the first 12 - 24 hours following birth they have a very good chance of not surviving (**mortality rates of up to 25% have been reported**).

### **Why is Local Passive Protection Important?**

The importance of passive local protection is evidenced in the newborn calf where diarrhoea and other enteric infections (scours) can prove fatal. It has been widely accepted that the best source of nourishment for the infant mammal is mother's milk. This has largely been attributed to not only the nutritional benefits of mother's milk but also the presence of milk immunoglobulins providing local passive protection of the GI tract.

### **Why New Zealand Colostrum?**

New Zealand Colostrum is recognised as the world's premium colostrum. Why? Because it is collected only from pasture-fed cows, that are pesticide, antibiotic and hormone free. New Zealand has a strong competitive advantage in colostrum production due in part to NZ's dairy cows all calving during a single three-month period each year.

This means NZ Colostrum is collected in bulk and transported in a fresh chilled state from farms to the processing plant, in the same way as milk. This is a critical production advantage, because gentle handling, and low temperature collection and process technology preserve Colostrum's active ingredients. In other

countries, colostrum is collected in batches until there is enough to process. This means it must be stored for long periods before processing, so it is frozen. Rapid freezing and rapid thawing techniques prior to processing may cause damage to the protein molecules and may compromise the integrity and biological activity of the immunoglobulins, growth factors and other biologically active components. As an example if you had the choice would you rather buy fresh fish or frozen? The obvious choice is fresh.

The absolutely best source of colostrum is from the early milk of pasture fed, non-hyperimmunised, healthy New Zealand cows. It is our temperate climate combined with our farming practices make New Zealand the absolute best supplier of colostrum. Further New Zealand milk products are renowned worldwide for their quality and consistency in both manufacture and supply. International quality auditors to ISO 9001 standards certify the testing laboratories and all manufacturing facilities.