Is Your Colostrum Truly First-Milking?

by Anthony Kleinsmith, Ph.D.

Anthony Kleinsmith, Ph.D., who grew up on a dairy farm in Cache Valley, Utah, has dedicated his life to the science of colostrum-based nutrition. We can safely state that his company TBR Labs, of Orem, Utah, has become the nation's premiere producer of first-milking colostrum products.

Colostrum is nature's "first food." It is the perfectly balanced "first meal" that every mammal gives its newborn. The mother produces it for only a short period of time; yet, it contains numerous compounds that stimulate and support many processes in the body, including activation of the immune system, regeneration and repair of tissues, and normal growth of *all* types of cells.

The *immune factors* in colostrum provide protection for the newborn against bacteria, toxins, viruses and disease. They activate numerous processes that are critical to the healthy function of the immune system. They stimulate factors that heighten the overall immune response and provide support to a developing immune system until it is ready to function on its own. These same factors can offer similar benefits to adults and children—stimulating and supporting weakened immune functions while, paradoxically, quieting an overactive immune system.

When you think about it, that's what we all want—a healthy immune system that is capable of taking care of anything that comes along. With a healthy immune system we would not have to rely on vaccines and flu shots, which have their drawbacks and are certainly not 100 percent effective. The immune factors in colostrum build and support *all* the processes that relate to healthy immune function. With the regular addition of colostrum to the diet, most individuals report a heightened immune response—fewer colds, flu, and allergies. They also notice that when they do catch a cold, they are able to move through it much more easily.

Growth factors contained in colostrum are instrumental in promoting rapid healing and repair of damaged tissues in the newborn. They are instrumental in facilitating normal growth and they work with the immune factors to support processes throughout the entire body. For adults and children, these same growth factors are involved in the healing and repair of all types of tissues and organs. With consistent use, they continually regenerate and rebuild the entire body. As with the components of any "food," the growth factors in colostrum typically "go" where they are needed—sealing the lining of the intestinal tract, repairing damaged muscle tissue (including the heart), healing wounds and rebuilding organs and tissues.

Many of the effects of the growth factors are considered "anti-aging." The youthful "side effects" of taking colostrum include more energy, elevated moods, smoother skin, wrinkle reduction, better digestion, balancing of blood sugar levels and weight loss, to name a few.

No wonder that for thousands of years, Ayurvedic physicians and sacred healers known as Rishis have used bovine (cow) colostrum for medicinal purposes—for everything from immune deficiencies and age-related symptoms to treatment of the common cold. Even today, colostrum is delivered with the milk in some parts of India. In the Scandinavian countries, colostrum has been used in folk medicine for centuries. The birth of a calf is celebrated and the colostrum is used in the making of a dessert to promote good health.

So, this is all great, and you should consider colostrum not simply a dietary supplement but a powerful whole food concentrate to be consumed regularly, much as you know you should be consuming fresh fruits and vegetables. But when you purchase your colostrum, I want you to ask yourself an important question…

ARE YOU SURE YOU'RE BUYING FIRST-MILKING COLOSTRUM?

Bovine colostrum is produced before birth, and can only be collected for a short period of time without being diluted by the subsequent production

Transition from Colostrum to Normal Milk

dried bovine colostrum

Hours after Calving	*Total Protein*	*Casein*	*Albumin*	*Fat*	*Lactose*
0	65.10	18.82	42.02	18.90	8.11
6	48.90	17.16	30.79	33.48	13.25
12	41.64	20.65	20.37	26.15	25.53
24	35.40	21.61	11.59	26.62	31.17
48	32.64	22.95	8.64	24.43	34.64
72	32.55	22.77	8.18	26.14	36.85

Information from Fundamentals of Dairy Chemistry, *1978.*

of milk. At the time of birth, potency is at its peak. The active elements, including immune factors, growth factors, antioxidants and anti-inflammatory agents, are at their highest concentrations. However, in less than 12 hours, the concentration of these components is only half of what it was at the time of birth. This makes colostrum a limited commodity; yet, because of the extensive dairy industry, sufficient quantities are available for human use as a dietary supplement.

A common misunderstanding about bovine colostrum is in thinking that it continues to be produced after the calf is born. This is not the case. The hormonal changes that occur at the time of birth cause colostrum production to cease in the mother cow. This is perhaps the *single most important thing* to understand when it comes to colostrum quality.

At the time of birth, almost all of the biologically active components present in the udder are transferred from the circulation of the mother, while cells within the udder itself produce most substances found in later fluids. These factors, combined with the time of collection after birth, play a major role in establishing the quality of bovine colostrum, which is really a golden color. Removal of even a small quantity of colostrum immediately after birth, as would occur via suckling, results in a very substantial influx of a different fluid produced by the cells in the udder, known as transitional milk, markedly diluting the true colostrum.

In addition, if the true colostrum is not removed from the udder during the first eight to twelve hours after birth of the calf, the mother's system begins to reabsorb the biologically active components back into her circulation. Therefore, the only colostrum that contains all of the biologically active components in the appropriate proportions is that which is obtained at the first milking within twelve hours after birth. The removal of even small amounts of colostrum triggers the production of a significant quantity of milk. If colostrum is not removed, or is only partially removed, the mother's system will begin to reabsorb many of the biologically active substances within six to eight hours. This is why most dairy farmers "milk" the cow and feed the required amount back to the calf.

For those of us who are interested in the best quality colostrum, the *first milking* is the only time it can be obtained in an undiluted state and before biological factors begin to be reabsorbed into the mother. This assures that it is still high in the immune and growth factors that are of interest to us.

Misunderstanding the shift from production of colostrum to production of milk has caused many to believe that good quality colostrum can be produced and collected from the first five milkings of the cow. This is not the case.

Any "colostrum" that is collected after the second milking is in such a diluted state that it can hardly be called colostrum, and in the dairy industry is referred to as *transitional milk*. This is actually very important. One of the things we've noticed in recent years is that many consumers purchase colostrum seeking to obtain the same healing powers documented in many clinical studies but they come away disappointed with their colostrum experience. That is because altogether too many so-called colostrum products being peddled today are not colostrum but transitional milk.

These transitional milk products masquerade as true first-milking colostrum but do not deliver desired results.

It is difficult for average consumers to determine where to draw the line between true colostrum and what has been called transitional milk. At what point in time is colostrum no longer pure colostrum?

Many widely advertised colostrum products on the market today *are obtained from the first five milkings—as much as 72 hours following the birth of the calf.*

Such products, although widely sold and labeled as colostrum, are not true or complete colostrum. We really do need better labeling requirements when it comes to aiding shoppers to make smart choices about their nutritional supplements, including colostrum.

It is worth noting that researchers who use colostrum in clinical trials usually seek first-milking colostrum because they recognize that potency and quality are diminished with time. To expect similar results with adulterated colostrum or transitional milk being marketed as colostrum would be unfair to both consumers seeking the health benefits of colostrum and to those producers of true first-milking colostrum. ■

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Editor's Note—True first-milking colostrum is available from TBR Labs, of Orem, Utah. We recommend their colostrum formulas because of their proven high quality and dedication to producing first-milking products. TBR Labs formulas are available at natural health centers and from health professionals. If you have any trouble finding a source, call TBR Labs toll-free at (800) 916-3681.