



OPTIMUM CHOICES, LLC
Healthy choices for people and pets

Calcium and BAC (Bio-Algae Concentrates) (Research taken from www.TheMagicsBAC.com/page4-10.html)

The nutritional mission of BAC

Mind you, if you want to play the RDA game, then BAC can easily meet most of the RDA requirements, surpass most and address hundreds that are not even in the RDA tables and that should be. Yet fulfilling the RDA is not the intention of BAC. BAC's mission is "to awaken the dormant genius within". BAC is not a vitamin, a mineral, an antioxidant, an enzymes or even a supplement; BAC is all of the above. That is made possible only because BAC is a whole food, mind you an extraordinary whole food.

To make my point clearer about the role of BAC I will elaborate on the nutritional efficiency of nutrients as they occur in whole food as compared with nutrients occurring as isolated. I will use the critical nutrient **calcium** for my elaboration.

In the USA, the Recommended Daily Allowance for calcium supplementation is 1 gram to 2.5 grams. By the way, the European recommendation is for 400 mg. Who is right? The RDA recommendation was based on an emerging crisis of osteoporosis which has now reach epidemic proportions. By the way, the RDA for calcium has not made much of a dent into the osteoporosis crisis.

The calcium supplementation industry is a billion dollars one. There are hundred of different kind of calcium supplements sold with a variety of delivery options; liquid, chelated, occurring with other minerals, etc. Yet this large calcium supplements industry has not made much of a dent into the epidemic of osteoporosis.

It is true that our processed foods are often depleted of calcium and other minerals and/or that its processes contribute to the depletion of the calcium and other minerals in the food. It is also true that our soils are depleted of these same minerals, but calcium is one mineral that still occurs plentifully in many foods specially when organically grown and eaten fresh. It remains easy to eat one gram and more daily with a very normal diet. Yet the epidemic of osteoporosis is ongoing.

It must be that calcium absorption is a factor. There are many chemical and metabolic factors that influence the absorption of calcium and the absorptive mechanism itself. The former includes substances, which form insoluble complexes with calcium, such as sodium, magnesium and the phosphate ion. For example, the relatively high calcium-phosphate ratio of 2.2 in human milk compared with 0.77 in cow milk may be a factor in the higher absorption of calcium from human milk than cow milk.

Furthermore, intestinal calcium absorption is mainly controlled by serum concentration, hydroxylase activity and catalyses in the kidneys, which maybe negatively related to the plasma calcium and phosphate concentrations and positively to plasma parathyroid hormone.

Another example of the complexity of calcium absorption is found when phytates, present in the husks of many cereals as well as in nuts, seeds, and legumes, can form insoluble calcium phytate salts in the gastrointestinal tract.

Calcium taken as isolated supplements is even harder to breakdown and assimilate because it is usually a metallic inorganic molecule which is much larger than a naturally occurring form as with food. Our absorption metabolism and even our cell membrane cannot deal with inorganic calcium. And one wonders why we have so much osteoarthritis? Could it be that this form of inorganic calcium is not only quasi impossible to breakdown, but also extremely difficult to eliminate?

BAC contains per gram more naturally occurring calcium than cow's milk with high bioavailability and zero toxicity. BAC also contain calcium spirulan, a form of calcium that has extraordinary properties. In studies, calcium spirulan is shown to inhibits HIV at very low concentrations by preventing the virus from penetrating the human cell membrane and infecting the cell. In that sense, calcium spirulan is an antioxidant.

In a Soviet research trial on a 15,000 dairy cows farm, when 2,000 pounds dairy cows were fed daily 625mg of BAC (equivalent to two to three capsules), they cease suffering from bone loss (osteoporosis).

It is a known fact in the dairy industry that dairy cows loose their calcium to their milk because of the "unnatural" daily lactation mission, and poor nutrition. Bone loss occurs gradually and peaks at around 45 months, at which time, because the cows can hardly "stand up", they are usually slaughtered for meat.

When taking BAC these same cows will go on giving milk their entire lactation period of approximately 70 months without signs of severe bone loss.

Now the first question usually is "Is there enough calcium in BAC for the cow's daily requirement?". The answer, "NO there isn't." But, we do know that there is "much" calcium already present in the cows body, and as well, that there is lots of calcium in its daily food. So the question becomes "What makes the cow not suffer from calcium deficiencies when consuming BAC?" The answer is "When a cow consumes BAC, its hypothalamic-pituitary complex is positively influenced by the efficiently delivered nutrients in BAC". When this all mighty hypothalamic-pituitary complex is nutritionally invigorated, it "awakes" and commands via precursor hormones, hormones and peptides, billions of biochemical actions, and hundreds of metabolisms, among those; calcium assimilation, calcium activity and calcium utilization. In essence, the cow is able to breakdown and absorb more calcium from its food, and more efficiently utilize calcium.

The differences between BAC and other algae

Bioavailability:

Refers to the availability of a nutrient to the body. Nutrients that are bioavailable are absorbed by the organism, digested and distributed to the various parts of the body where they are required to support good health.

- The protein of bio-algae concentrates are rated 95% NPU (Net Protein Utilization)
- Calcium spirulan found in the Chlorophyll of bio-algae concentrates has a 90% NCU (Net Calcium Utilization)
- Within 20 minutes of consuming bio-algae concentrates people and tests report digestive ease, blood sugar stabilization, cell count normalization, etc.

As you can see, bio-algae concentrates offer a vast range of nutraceutical advantages over other simpler algae. The health benefits, and the strengths of each algae in bio-algae concentrates overlap. That's why I recommend bio-algae concentrates over single algae.

www.TheMagicsBAC.com/page11-00.html