## Inexpensive Delivery of Necessary Biologically-Active Peptides and Amino Acids

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The human digestive system, when presented with easily-converted OTC (over-the-counter) digestive formulas can be perhaps be the most effective delivery system available for essential key elements that control our metabolism and many physical and mental health balances. Dietary supplement formulations are often overlooked yet they are the most inexpensive delivery method for bringing these key essential elements to our health.

An excellent example of this process is the delivery of the powerful bioactive peptide lunasin. Lunasin is a very small structured compound and an extremely bioactive contributor for health. It works at the most basic human level and actually directs how our existing DNA or genetic code influences the body. Lunasin is a naturally occurring, biologically active, peptide. Peptides are the building blocks of proteins and are composed of naturally occurring amino acids. Lunasin contains 43 amino acids. Considering the fact that the human body is composed of nearly 30 trillion individual cells, lunasin presence, taken into the body through oral ingestion, can be and is a prime-time player in human health.

The most convenient delivery mechanism for lunasin addition to our health is through ingestion of fermented soy. When we eat protein we are consuming amino acids and peptides. Soy of course is 36 - 56 percent pure protein. This energy and health chain of events is composed of the following steps: Ingestion of Soy (Protein), Release of Bioactive Peptides including Lunasin and the subsequent cascade availability of Amino Acids. But why is this important?

Biologically active peptides like lunasin play an important role in regulation (speed) and modulation (adjustment) of metabolism. During gastrointestinal digestion, food processing and enzymatic hydrolysis (breakdown) of food proteins occurs and releases biologically active peptides. The biologically-active lunasin has been shown in many worldwide scientific studies to have health-adjusting actions. It is also an anti-hypertensive, anti-oxidative, anti-obesity, immunological strengthening, cholesterol lowering and anti-cancer agent.

As is known, the DNA (genetic blueprint) of any individual is established at conception and cannot be controlled. Yet our lifestyle choices can control the ongoing actions of the genes that compose our DNA and the ongoing effects on cell function. As an example, smoking adds a genetic "tag" to particular genes and turns them into "bad genes". Lunasin, on the other hand, has been shown to add through its inclusion into the actual gene structure a good genetic "tag". With good "tags", the actions of these modified genes are transferred to all cells in the body on an ongoing basis. The result? Improved health.

The use of fermented soy as the carrier or delivery system for oral ingestion of lunasin is available OTC (over-the-counter) and found as a primary component in one dietary supplement marketed for weight loss and weight management. Lunasin contained in this proprietary formula is the key contributor to the clinically-proven product attributes of speed and adjustment of metabolism. It does not possess the side effects of single available lunasin ingredient formulas that possess side effects of constipation, abdominal bloating, diarrhea and flatulence. Fermented soy continues to be the preferred process to offer lunasin based for oral ingestion based upon scientific studies evaluating bioavailability.

Why do essential amino acids need be ingested on a daily basis? Essential amino acids are dietary precursors delivered for conversion by the body into neurotransmitters which control major body functions...and when an imbalance occurs can effect various physical disease and mental disorders. These disorders can include Multiple Sclerosis, ALS (Lou Gehrig's Disease), Huntington's Disease, Parkinson's Disease, ADHD (attention deficit disease), Alzheimer's Disease, Serotonin Syndrome, Depression and control of the many different Pleasure/Addiction conditions. The most important of these amino acids are tryptophan, phenylalanine, histidine, arginine, threonine and lysine. Tryptophan makes the neurotransmitter serotonin which controls mood, sleep and appetite functions. Phenylalanine creates

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dopamine which is converted into norepinephrine and controls reward, motivation and concentration. Regulation of immune response is determined by the histidine conversion to histamine. Nitric oxide is the neurotransmitter result of arginine conversion and controls vasodilation. The major regulatory neurotransmitter GABA (Gamma-amino butyric acid) is dependent upon Glutamine conversion to glutamate while Acetylcholine and its learning, memory and arousal effects are derived from choline.

More information is available with reading of the attached references.

Be Well!

## **Bibliography**

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