

BioBuild: The True “Building Blocks” of Life

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I have just completed my 27th Ironman Triathlon, achieving my best time in over 5 years! (*An Ironman is race consisting of a 2.4 mile swim, followed by a 112 mile bike, followed by a 26.2 mile run. The clock starts when all 2000 participants jump in the water [in a mass rush] and ends when each finishes the run.*)

Just five months ago this achievement would have seemed impossible. I am fifty-five-years-old, and unfortunately, for the last five years my completion times were getting longer. After five years of diminishing results, I began to fear that age was catching up with me, and that, though I was still eager of mind, my body was wearing down. Despite my efforts and knowledge as a medical physician with an interest in anti-aging, my goal of being in top physical condition at age 60 was slipping away.

Then I discovered **BioBuild**.

After starting to take these essential amino acids, my strength and endurance increased. My maximum heart rate jumped ten points to 186. My 3-year-old chronic hamstring problem healed. I could do a 6-hour workout and have very little soreness the next day. It seemed too good to be true.

Then only two weeks after my 27th Ironman Triathlon, I raced at the Los Angeles Triathlon, again with great results. A very fast time, and no injury.

It wasn't a dream. I simply was experiencing the benefits of proper amino acid nutrition and of real anti-aging processes in action. I was surprised; I never thought I had not been meeting my essential amino acid requirements.

Let me explain.

The body's component parts are constantly being broken down and rebuilt. If the essential nutrients required to repair and rebuild the body are not available, diminishing physical performance, vitality and health can result.

This is the crux of aging.

We have known for some time that amino acids provide the essential components for the body's structural foundation and the molecules that sustain life. Until recently, however, we didn't know the correct proportions required for human nutrition.

The essential amino acids must be available in the *correct proportion* for protein synthesis to occur.

Inadequate protein/amino acid intake in the correct proportions may result from restricted diets, reduced appetite, illness, skipping meals, poor diet choices, or physically demanding work or exercise, etc., and can compromise health by affecting:

- ◆ bone cell synthesis
- ◆ pH balance
- ◆ red blood cell production

- ◆ organ function
- ◆ heart cell turnover rate
- ◆ enzymes/hormones
- ◆ neurotransmitters/mood
- ◆ skin elasticity/muscle tone
- ◆ sense of well-being/stamina
- ◆ mobility/joint integrity
- ◆ immune function/antibodies, etc.

To a degree never before possible, we can now provide the body daily with the correct amounts and proportions of amino acids and better help normalize protein synthesis and enhance performance in both the sick and the well.

Later, I will illustrate why normalizing protein synthesis plays a fundamental role in maintaining health and supporting healing processes.

But first, a brief review:

1. There are eight essential amino acids from which the body can make the other amino acids needed to build the different proteins of the body.
2. The body cannot store amino acids in the way it stores fat or glycogen. The amino acid “storehouse” is the tissue structure of the body itself. When dietary protein or amino acid requirements are not met, the body will be unable to synthesize sufficient proteins to adequately replace those body proteins that have been catabolized.
3. Even minor amino acid deficiencies or imbalances can compromise health and become the underlying cause of many health complaints, particularly as we age. A significant factor contributing to a loss of performance and health is the gradual loss of lean-body mass (*the mass of living cells that make up muscles, organs, skeleton, antibodies, enzymes, etc.*)
4. Each type of dietary protein has a different amino acid profile. Hence, the amounts of amino acids from each type of dietary protein that can be used by the body to build protein can vary. The percentage of amino acids from a dietary protein that are used as “building blocks” in protein synthesis represents the dietary protein's nutritional value. This nutritional value is known as Net Nitrogen Utilization (*NNU*).
5. Amino acids that are not used by the body to build lean-body mass are catabolized and release harmful nitrogen waste that has to be processed by the liver and kidneys. (*Excess nitrogen waste can stress liver and kidney*)

function and contribute to urinary calcium loss.)

6. The Net Nitrogen Utilization (NNU) of dietary proteins and amino acid formulas vary. Even concentrated sources of protein in the form of meat and fish have only a 28% to 32% NNU. Protein powders that use soy, whey or casein as a protein source have an NNU of less than 18%. Other amino acid formulas also have an NNU of less than 18%. Hence, the majority (*at least 83%*) of the amino acids from protein powders and other amino acid formulas are not used in the body's protein synthesis and result in the release of nitrogen waste.

BioBulde Amino Acid Formula contains the eight essential amino acids in the correct proportions. Uniquely, it has an unprecedented 99% Net Nitrogen Utilization. Virtually no nitrogen waste or calories are released. These amino acids in tablet form require no digestion and are absorbed into the blood stream in 23 minutes after ingestion with water, juice or food. These characteristics make it the safest, most effective protein substitute or complement.

BioBulde can be used in the dietary management of individuals to help meet daily protein/amino acid requirements and to help optimize protein synthesis.

Following are some specific examples of how normalizing protein synthesis can benefit physiological processes:

1. Since approximately 50% of bone is comprised of protein, sufficient protein/amino acid intake is mandatory to help maintain bone mass. Although much attention is focused on maintaining a balance of hormones, minerals, vitamins, etc., the importance of amino acids is often neglected. A lack of the correct amounts and proportions of amino acids can be just as significant in bone development. Minerals make up approximately the other 50% of bone (*by volume*), but the body can only mineralize the bone when the protein matrix is present. Adequate amounts of essential amino acids in the correct proportions are necessary to synthesize bone cells.
2. Immune function is very sensitive to a lack of protein/amino acids because of the high cellular turnover rate of some immune cells. If the body's intake of protein/amino acids is insufficient its immune cell profile can be altered and be compromised within days. Adequate amounts of essential amino acids in the correct proportions are necessary to synthesize immune cells.
3. Red blood cell production also requires adequate protein/amino acids. Low RBC counts may be due not only to the lack of certain vitamins (*B12, folate*) and minerals (*iron*) but also to the lack of essential amino acids. Adequate amounts of essential amino acids in the correct proportions are necessary to synthesize red blood cells.

4. The protein content of breast milk is affected by the protein/amino acid intake of the mother. An inadequate intake of protein/amino acids by the mother may lead to impaired nutrition of the infant. Adequate amounts of essential amino acids in the correct proportions are necessary to normalize the amino acid profile of breast milk.
5. When tissue is injured, protein/amino acid requirements increase. The body requires extra amino acids beyond normal daily requirements to optimize the repairing, healing and recovering process. Inadequate protein/amino acids can impair the healing of strained ligaments, tendons and muscle after hard training or competition and can result in further injury or poor performance. Many athletes have greatly improved muscle strength and reduced recovery periods by adding essential amino acids in the correct proportions to their nutritional programs.

"BIOBULDE PLAYED AN IMPORTANT ROLE IN THE US POSTAL TEAM'S VICTORY AT THE TOUR DE FRANCE. WE USED IT TO ACCELERATE MUSCLE REBUILDING AND REPAIR AFTER EACH DAYS RACE AND TO MAINTAIN MAXIMUM LEAN MUSCLE MASS FOR THE 22 DAYS. IT WORKED PERFECTLY."

*Jeff Spencer MA, D.C., CCSP
Five-Year U.S. Postal Professional Cycling
Team Chiropractor*

BIOBULDE AMINO ACIDS WERE AN IMPORTANT PART OF MY RECOVERY DURING THE TOUR DE FRANCE THIS YEAR. I DID NOT FEEL AS THOUGH MY MUSCLES WERE BREAKING DOWN AS MUCH AS THEY HAVE IN THE PAST. THEY ALSO HELPED ME TO RECOVER FROM AN ILLNESS THAT KEPT ME OUT OF COMPETITION FOR 3 MONTHS. I WILL CONTINUE TO USE THIS GREAT PRODUCT FOR THE REST OF THE YEAR, AND THE SEASONS TO COME AS WELL."

*George Hincapie
US Postal Professional Cycling Team*

These are but five areas that demonstrate the prudence of insuring that individuals meet their daily protein/amino acid requirements.

BioBulde is the safest, most effective protein/amino acid support available. All individuals whether dealing with a specific health challenge or just trying to maintain health can use the product to help meet their protein/amino acid requirements. It can safely be used in the dietary management of: *infants, pregnant or nursing women, children, adolescents, adults, athletes, and the elderly*, regardless of health status, age or gender. And while most people may never aspire to be on the starting line for an Ironman Triathlon, having a body that could is a wonderful thing to have! ♦

A SURE WAY TO REBUILD ENERGY - FITNESS - LIFE!

Do you have seriously ill or elderly patients who have lost energy and strength and are having a hard time regaining it...or maybe they have already lost any hope?

Do you have patients who are high performance athletes, struggling to reach the next level of fitness and performance?

A new breakthrough now gives you a vital new tool that can help all these patients achieve their goals!



BioBuild™
ULTIMATE PROTEIN SOURCE

- **BioBuild** is a remarkable new protein source that can provide unprecedented nutritional support when taken as a complement to a well-balanced diet.
- **BioBuild** can be used in dietary management to build strong bones since bone tissue is half protein.
- **BioBuild** can also be used by individuals with compromised renal and liver function to protect against damage by nitrogen waste.
- **BioBuild** can be used by bodybuilders and athletes to safely maximize protein synthesis, minimize recovery time and gain strength.
- **BioBuild** can be helpful to senior citizens to regain lost muscle and improve their mobility. It has no contraindications.
- **BioBuild** IS A PRODUCT FOR EVERYONE who desires improved health, vitality and energy.

To purchase **BioBuild** or for more detailed information, contact BodyHealth at 877-804-3258

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