



# Body Typing for Athletes

## Biochemical Individuality

It was Dr. Roger Williams who first introduced the modern world to the concept of biochemical individuality. He believed that genetics and nutrition were connected, and that poor nutrition influenced gene expression in a very negative way. He was absolutely right!

Williams emphasized the importance of individuality as a crucial factor in nutrition, claiming that certain individuals must have special nutritional environments if they are to thrive. Now deceased, Dr. Williams was a Professor of Chemistry at the University of Texas, the author of several best selling books, and the discoverer of pantothenic acid (vitamin B5) the "anti-stress" vitamin.

That we are individuals may come as no surprise. But when it comes to formulating a dietary strategy designed to optimize athletic performance and body composition, Lucretius was correct when he wrote more than 2000 years ago...

*"What is one man's meat is another man's poison".*

Titus Lucretius Carus (c.99 - c.55 BCE) was a Roman poet and the author of the philosophical epic *De Rerum Natura* (On the Nature of the Universe), a comprehensive exposition of the Epicurean world-view.

Dr. Barry Sears, author of *The Zone*, describes food as a powerful drug, encouraging all of us to think of food not only as a source of calories, but as a control system for hormones.

## Food Incompatibility

More and more nutrition scientists are warning us about the implications of choosing the wrong food base. And it's no longer a question of simple deficiency. There are many naturally occurring food chemicals which may be incompatible to health. Thioglucosides for example, occur naturally in the Brassica family, which includes most varieties of cabbage, turnips, kale, rutabaga, watercress and rapeseed. Individuals with known or suspected hypothyroidism should avoid eating an abundance of these plants raw, as these substances are known to damage thyroid function or impair thyroid hormone activity. Impairment of thyroid activity directly affects metabolic rate and body composition.

Nightshade vegetables, which include potatoes, tomatoes, red and green peppers, eggplant and paprika, contain solanine, a glycoalkaloid associated with causing arthritic pain. Parsnips contain poisonous chemicals called psoralens. Psoralens are proven carcinogens (cancer-causing agents). Spinach, rhubarb and cocoa beans are high in oxalic acid, which interferes with calcium absorption. All breads and cereals contain phytates (phytic acid) which bind with zinc preventing its absorption from the intestinal tract into the blood. All foods are not created

equal and they influence human phenotype in countless biochemical ways.

In defense of these natural foods, it is critical to mention their bio-directional nature. For example, phytic acid, while having the ability to bind zinc, also functions as a protective antioxidant. Phytic acid protects DNA, inhibits abnormal cell proliferation and strengthens NK (Natural Killer) cell activity. Likewise, Brassica plants contain sulforophanes, now recognized for their chemoprotective actions. Broccoli sprouts contain glucosinolate precursors, including sulforophane that have anticarcinogenic properties. Sulforophane can also eradicate the bacterium *Helicobacter Pylorum* that is associated with peptic ulcers and stomach cancer (the second most common cancer in the world).

Individual people differ not only in their genetic makeup, but also in their metabolic efficiency and nutritional requirements. One of the most important principles in natural medicine is the principle of individual biochemistry. Although we are all composed of the same elements and require many of the same essential nutrients for survival, each one of us will always exhibit a wide range of individual need. This factor is further complicated by lifestyle, climate, stress, emotional state, mental health, exercise and environmental pollution.

Knowing your individual body type, regarding how it works and how it functions is invaluable information. This knowledge will bring you closer to understanding your biochemical needs. By studying the research and examining different theories from various experts in the field, you can achieve more confidence in your food and exercise selection, which ultimately empowers your ability to build muscle, reduce body fat and generally improve your health.