

Real Food^a for Real People

Synthetic Vitamins vs. Real Vitamins

By Dr. Steven Davis, D.C., N.M.D.

As a physician that is continually concerned with finding the best sources for nutritional products, I am proud to recommend products from a new and innovative company called NutriHarmony^a. NutriHarmony^a uses a revolutionary process that sets this company in a class by itself. BioTransformation^a is a natural process that utilizes living plant cells (*saccharomyces cerevisiae*) to serve as the equivalent of a microscopic "organic garden" that is capable of converting inorganic USP grade vitamins, minerals and other natural substances into biologically complete, bio-active foods. This extraordinary process produces the purest of concentrated nutrients and represents a quantum leap in the science of nutrition and whole food supplementation.

To fully understand the ramifications of this discovery, it is necessary to first realize that there are currently very few sources that are capable of providing nutrients in a supplement that are "truly" bio-active, (available to the body) in a whole food form. Unfortunately, most of the nutritional supplements that are available in today's market--"whether found in a drug store, health food store, or nutritionists office"--are actually created using synthetic ingredients (Frost, 34). This widespread use of synthetic, inorganic ingredients can be traced to both economic and philosophic concerns. Historically, it has not been cost-effective to make vitamin supplements from natural sources. For instance, it takes "a ton (2,000 pounds) of unmilled (unrefined, whole) rice" to provide about five grams of vitamin B1.

"This means there is approximately **a level teaspoon** of thiamin (B1) in a ton of rice" (DeCava, 61). Synthetics, on the other hand, can be easily mass-produced and can help increase the labeled potencies sought after by consumers.

You might be wondering about all of the products that are purported to be made from "natural" or "organic" ingredients.

Unfortunately (for consumers), the word "natural" is "undefined by law" and although it may be on the label, it "does not necessarily mean that all the vitamin in the bottle is simply extracted from a natural food source. The term 'natural' really refers to the fact that the supplement does not contain other unnatural ingredients, "such as coal tars, artificial coloring, preservatives--common ingredients in products that are not labeled "natural" (DeCava, 39; Lieberman, 40).

There are actually two basic points of view when it comes to vitamin supplementation:

1) "Vitamin factors--parts--can be made and should be prepared in a chemically 'pure' (free from all associated components) form, in a high concentration ('high-potency')."

2) "Vitamins are just like other food factors: they exist as extremely complex groups of associated substances of a synergistic (cooperative) nature, and that if the complex is taken apart (fractionated), it is no longer capable of producing its normal, nutritional and metabolic effect or function" (DeCava, 23-24).

And the tension that results from this dichotomy revolves around the question: Is there really any difference between synthetic and natural vitamins? The proponents of Viewpoint #1 would say,

"Definitely not--for all intents and purposes, they are the same". The proponents of Viewpoint #2, would declare that there is a fundamental and essential difference, one that necessitates using whole food sources, no matter what the cost.

If we were to closely examine the nature of "synthetic" and "natural" vitamins, we would have to admit that two basic points of distinction do become clearly visible:

- 1) No matter how closely it may resemble a natural vitamin, the synthetic product is still a mirror image, or imitation (see the photographs below).
- 2) "The synthetic product is always a simple, isolated chemical substance, while the natural product is a complex mixture of related and similar and interdependent materials" (DeCava, 32).

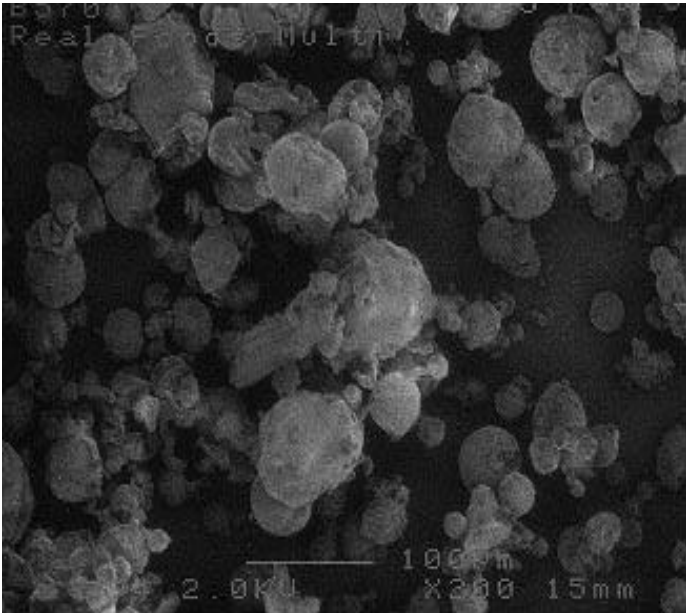
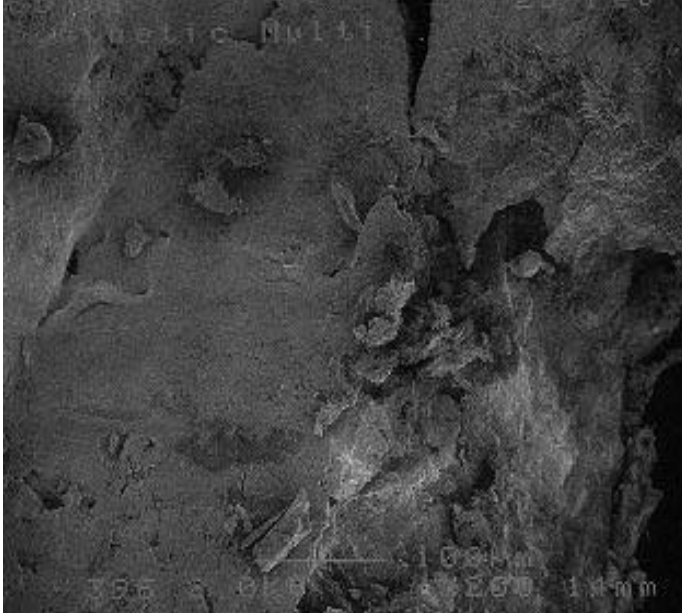
This means that there is a difference in essence (or nature), but the question still remains whether there is any distinction when it comes to function.

Judith DeCava, MS, LNC has gone to great lengths in her book, *The Real Truth About Vitamins and Antioxidants*, to show that synthetic vitamins do function very differently from natural vitamins. According to DeCava, synthetics are functionally foreign to the body--the body will not recognize them as true nutrients, even though they may contain all of the individual molecular components of a nutrient. Vitamins are actually groups of "chemically related compounds" that include synergistic co-factors (such as amino acids, enzymes, or even simple sugars) which are necessary for a nutrients use in the body (DeCava, 13). Synthetics, on the other hand, are "chemically- isolated . . . fractions-- single vitamin components--even if several or many are combined into one tablet or capsule" and lack these natural co-factors (DeCava, 30).

In order for a vitamin to be used in the body, the co-factors must be present, and when they are missing, the body will be forced to steal them from its own internal resources, thus causing a depletion, an imbalance in a person's biochemistry (DeCava, 31). Synthetics are, in effect, little more than "disabled, debilitated [chemicals] of little or no value to living cells," and although the body will use them if nothing better becomes available, these nutrient substitutes certainly do not provide the same benefits that organically created elements do (DeCava, 13).

It is easily understood that a person cannot expect to provide the body with appropriate nutritional support by eating handfuls of dirt or rocks--even though they do contain minerals the body needs--and it is just as logical to presume that consuming synthetic or chemical components that are meant to mimic nutrients cannot be as beneficial to the body as organic-based nutrients. Natural vitamin complexes "readily find their way into the normal chemical actions and changes (biochemistry) essential to energy, growth, repair, function, and sustenance of life," and synthetics do not (DeCava, 30).

And with this in mind, it is easy to see that a vitamin supplement "cannot simply be an individual chemical or several chemicals." Supplements must be "food concentrates, intact, integrated, with their vitamin complexes incorporated so as to retain their functional and nutritional integrity" (DeCava, 23). In its effort to provide Real Food™ products for health conscious consumers, NutriHarmony has bridged the synthetic/natural gap by creating whole food supplements using a living source as the foundation. The BioTransformation™ process takes inorganic components and converts them into biologically available nutrients, and it is NutriHarmony's foundational living source that truly rockets this company's products to the forefront of the nutritional market.

Natural Vitamin Complex	Synthetic/Chemically Pure Vitamin
<ul style="list-style-type: none"> • Colloidal, protein in nature, exists as enzymes/co-enzymes 	<ul style="list-style-type: none"> • Enzymes/activators destroyed by heat, pasteurization, and steam sterilization
<ul style="list-style-type: none"> • Biologically active 	<ul style="list-style-type: none"> • Biological activity/function destroyed by separation of enzyme components
<ul style="list-style-type: none"> • Contains trace mineral activators 	<ul style="list-style-type: none"> • Trace mineral activators separated out resulting in failed vitamin function
<ul style="list-style-type: none"> • Biologically ready for use in the body 	<ul style="list-style-type: none"> • Body must recombine separated elements before they can function as a vitamin (often supplying missing components from its own reserve)
<ul style="list-style-type: none"> • True, operable nutrient 	<ul style="list-style-type: none"> • Cannot be a true, operable vitamin just as a single substance cannot be a carbohydrate or a protein or a fat
<ul style="list-style-type: none"> • Synergistic factors are intact 	<ul style="list-style-type: none"> • Synergistic factors missing
<ul style="list-style-type: none"> • Contains living elements that support life 	<ul style="list-style-type: none"> • Dead, inert, non perishable materials
<ul style="list-style-type: none"> • Physiologically-precise complexes (DeCava, 24-29) 	<ul style="list-style-type: none"> • Mirror-image duplicates of just a portion of a whole complex
	
<p>200x view of NutriHarmony's Real Food™ food clusters (ie. NutriHarmony's Real Food™ multi-vitamin).</p>	<p>200x microscopic view of a USP (standard) multi- vitamin. Notice the rock-like appearance.</p>

Sources:

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Dr. Davis, D.C., NMD, is the editor of *From the Desk of Dr. Steven Davis*, periodically published articles looking at the most current nutritional research on a wide range health issues. Dr. Davis has been in practice over 20 years. Assisting with technical support, research and writing, Mr. Scott Foreran, MS English.