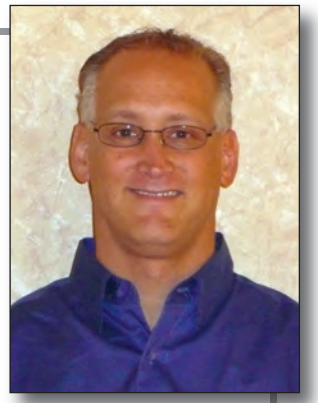

Plant-Based vs. Synthetic Chemical Nutrients

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Nutrients can be broadly based into two general classes: artificial and natural. Within these two groups are subcategories such as: combinations of artificial and natural ingredients, as well as plant-based and animal-based. The focus of this article will be on the differences and advantages/disadvantages of plant-based and synthetic chemical nutrients.

Since more consumers are relying on additional supplementation for health purposes, it is important to know the differences between nutrients derived from living plants and those from non-living, inert synthetic chemicals. The wrong choice can have short and long term consequences.

The first and most obvious difference between the two categories is that plant-based nutrients were once part of a living biological organism, perfect in form and function, where synthetic chemical nutrients are principally man-made — the result of trial, error and experimentation in a lab. The primary reasons that many nutrients today are synthetic are convenience and price. It is much easier and more cost-effective to access chemicals in bulk and process them in one or two main locations. Since synthetic vitamins and chemical nutrients are designed for cost purposes, they are created from plentiful and inexpensive sources, not from whole foods or plant matter. They are the cheapest supplements to be found.[1] On the other hand, growing, harvesting and processing real plant nutrients is far more costly, but far more bio-available, able to permeate the cell membrane for use as fuel, and beneficial.

On the surface, synthetic chemical nutrients may look and even taste similar to the plant-based organic nutrients, but they are NOT identical. This difference in chemical structure is what not only keeps the chemical nutrients from delivering the health benefits they should, but also can be detrimental to one's health over time. Anything not inherently found in nature has the potential to be toxic to the body which eventually may result in a variety of health infirmities.

Studies repeatedly have shown that synthetic chemical nutrients do not compare to living plant-derived nutrients when it comes to health benefits. For example, in a study done to test the anti-oxidant capability of a synthetic form of vitamin C vs. natural Ascorbic acid, it was found that synthetic antioxidant food additives (BHA, TBHQ, and BHT) conventionally used in the food industry were less effective antioxidants than ascorbic acid.[2]

Additionally, since the size and chemical structure are not identical to naturally-occurring nutrients, synthetics generally are less bio-available, rendering them inefficient, and they have a tendency to get stored in specific areas of the body such as the tissues between the cells, lymph fluids, and subcutaneous fat. The body's immune system views these new additions as foreign invaders and does what it's supposed to do – attacks them. This is known as auto-intoxification and is believed to be a contributing factor in many auto-immune diseases.

Most synthetic vitamins come in several forms: powders, liquids, pills, tablets, gelcaps, and capsules. Binders and fillers used in discounted mass-volume supplements, such as dibasic calcium phosphate (DCP) and microcrystalline cellulose (MCC), cannot be broken

down by the body, so they may pass right through along with the beneficial nutrients.[3] Tons of un-dissolved pills have been found in sewer pipes. These same binder compounds can remain in the bloodstream long after the pill has been eliminated and over time can accumulate in the tissues which may lead to various health complications including cancer, heart disease, stroke, pre-mature aging, painful joints, kidney stones, and host of auto-immune aberrances.

Chemical solvents such as benzene and toluene have been and are being used in the processing of synthetic chemical nutrients. In fact, some of the chemicals used to manufacture solid supplements are identical to those used in insecticides, motor fuels, explosives and lacquers.

On the other hand, nutrients that are produced in nature from real, living plant matter are made up of a structure that is readily absorbed and utilized by the body. They are not recognized as foreign invaders and are eagerly accepted by the cells as beneficial food to be used for the various essential biological functions of the body (i.e. detoxification) for optimal health.

A key in the bioavailability of living plant-based material is carbon. Carbon is what primarily separates organic from inorganic. Nutrients derived from living material contain a carbon atom; artificial nutrients do not. Nearly all synthetic chemical nutrients are inorganic (synthetic/toxic). Why is this so important? The human body is carbon-based. Therefore, the food that is consumed should be carbon-based or organic as well. Studies have shown the absorption of vitamin E in the form of alpha-tocopherol from natural, organic sources is much better than that of the synthetic stereoisomer mixtures (i.e. vitamin E acetate).[4]

Not only are plant-based nutrients superior to synthetic chemical nutrients in every way, they also contain all the body needs for homeostasis (keeping the body in a state of optimal health balance). Synthetic nutrients

simply cannot compete with plant-based, living, organic foods, nor can they provide complete nutrition.

When making the choice of the best nutritional supplements, look for organically complexed (carbon bound) supplements derived from whole foods, minimally processed, and made from the highest quality ingredients. It is always best to avoid preservatives, synthetic ingredients, binders, excipients, coatings, and flow agents as much as possible to acquire the best possible nutrition. Good health is ultimately worth the investment.

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