

Is Your Multi Vitamin Giving You Everything

"Under the Sun"

Viva VITAMINS' *Phyto-Pak*

Whether overlooked, ignored or just taken for granted, nature has provided a beautifully arrayed phyto-pharmacy within our plant kingdom just waiting to be discovered and utilized. What if you could take handfuls of tropical plants, exotic herbs, various fruits and vegetables, and put all the medicinal benefits and nutritional value from them into a scientifically-formulated tablet. Well, Viva Vitamins has found a way to do this in such a way to not only reap the benefits from this smorgasbord of nutrients, but to do it in a balanced, biologically-proportioned fashion to yield maximum bioavailability.

THE VITAMINS:

Multi vitamins have come and gone over the years and numerous supplement companies have slapped a label onto a multi vitamin formula that gives the average person a below-average dosage of vitamins in a poorly constructed tablet. Unfortunately, the Recommended Daily Allowances for vitamins from the 60's don't account for the latest scientific research of today^{1,2}. This means that multi vitamin formulas following the earlier years of research aren't necessarily a waste of money, but they do have the potential of becoming so much more beneficial. It seems that the past 40 years of research has opened doors to new discoveries revealing an almost exponential increase in the dosage of many of the vitamins in our daily multiples. So now that the reality of potency is understood due to the advancement of science, how about a look back at what these vitamins are doing and what benefits they portray.

There are two categories of vitamins; water-soluble and fat-soluble. The water-soluble vitamins include the entire b-complex (thiamine, riboflavin, niacin, folic acid, pantothenic acid, pyridoxine,

cobalamin, biotin, PABA, choline and inositol) and vitamin C. Beside the fact that these b vitamins are cofactors to hundreds of biologically crucial enzymes, they are the main players involved in the process of converting food into energy. Biochemical reactions are catalyzed by enzymes. Think of the b vitamins as the on-off switch to these enzymes. Without b vitamins, these reactions in our bodies would not ensue. Vitamin C (ascorbic acid) can be touted as the water-soluble antioxidant we all know and love. It is one of the rare antioxidants that "re activates" itself upon oxidation with the help of its friends vitamin E, iron, and other fellow antioxidants. To make matters even better for ascorbic acid's reputation, studies suggest that vitamin C, when taken in hyper-supplemental amounts, also reduces inflammation⁴.

The fat-soluble vitamins include vitamin A (retinal/ol), vitamin D (calciferol), vitamin E (tocopherol) and vitamin K (phyloquinone/menaquinone). Vitamin A, usually derived from beta carotene or an alkyl ester, is involved in the photoreception mechanism of sight in our eyes. To put it plainly, if we didn't have any vitamin A in the retina of our eyes, we'd be blind. Vitamin A also plays

critical roles in antioxidation and our immune systems (Semba RD, 1998). Vitamin D is directly involved in the alimentary uptake and transport of calcium by being the only vitamin that acts as a steroid hormone (DeLuca HF et al., 1998). In this same manner, this vitamin-hormone is also responsible for skeletal growth and bone remodeling via osteocyte activation (Cranney C et al., 2007). In fact, recent studies suggest vitamin D's involvement in our immune system and inflammatory regulation (Hayes CE et al., 2003). To put it plainly, this vitamin-hormone is our best friend if we don't want brittle bones, aches and pains and getting sick. Vitamin D is also a "must" if we don't get adequate amounts of sunlight each day for our bodies to produce its own vitamin D (DeLuca HF et al., 2004).

The family of tocopherol isomers known as vitamin E plays the part of the antioxidant dynamo in Mother Nature's pharmacy. The alpha isoform of the tocopherols has demonstrated to be the most biologically active (Farrell P et al., 1994) and has proven itself to be the antioxidant powerhouse of the fat-soluble vitamins. Recent findings are also pointing to this vitamin's awesome display of anti-inflammation (Traber MG et al., 1999). But watch out for phony vitamin E (L- α -tocopherol) which only has about half of the biological activity of natural (D- α -tocopherol) vitamin E³, as some manufacturers like to use as their source of vitamin E to save some money. Vitamin K, as far as science thus far has revealed to us, is primarily involved in only one aspect of the human body. Vitamin K is a vital member of the network of cofactors, substrates and enzymes involved in the reaction of forming blood clots in our body. What this means is if there was no vitamin K present in us, we could bleed to death from a single scratch. Vitamin K is found in ubiquitous amounts in the Vegetable Feast™ and Multi-Green™ tablets of the Phyto-Pak.

THE MINERALS:

No less important than vitamins are minerals when considering daily supplementation. Just like the vitamins (with the exception of vitamins D and E) minerals act as cofactors to literally thousands of enzymes carrying out vital biological reaction in our bodies every day. Needless to say, when there is a deficiency or lack of these minerals in our diet, certain reactions can't ensue and major problems begin to occur. In some cases, these problems can be life threatening.

Viva Vitamins' Phyto Pak contains isolated amounts of these crucial minerals in proportions that correspond to the latest scientific research for maximizing each mineral's physiological and bioavailable potential. In other words, Viva Vitamins did their homework to include the right amount of each mineral to yield its maximum effectiveness in our bodies. Viva Vitamins' Phyto Pak also includes minerals needed in very small amounts (various elements on the periodic table) which are found in the Vegetable Feast™ and Multi-Green™ portions of the vitamin pack.

FRUIT FEAST™

Vitamins and minerals can only take us so far on our journey toward perfect nutrition and mastering health. As fruits and vegetables do provide an array of vitamins and minerals, they also provide a plethora of various other nutrients vital to optimal health. Viva Vitamins' Fruit Feast™ provides a small spectrum of sources that provide these beneficial nutrients. Imagine obtaining antioxidants, bioflavonoids, enzymes and other phyto nutrients from fruit without having to take one single bite of one. Well, now it's possible due to the nutrient-dense tablets in the Fruit Feast™ portion of the Phyto-Pak.

VEGETABLE FEAST™

There is good reason why mom always told us to eat our veggies. Vegetables provide an undiscovered world of antioxidants (free radical-scavenging species), catechins (polyphenolic plant metabolites yielding high antioxidant activity), enzymes (biochemical reaction-catalysts), beneficial alkaloids and terpenes (plant derived molecules supplemental to various physiological processes), and let's not forget fiber (soluble and insoluble). Similar to the Fruit Feast™, the Vegetable Feast™ portion of the Phyto-Pak is a stroll through the produce section of the supermarket without having to take a single bite of your vegetables. How bout that, mom!

MULTI-GREEN BLEND™

This dynamic compliment to the rest of the Phyto-Pak carries on through the vegetation wonderland containing concentrates such as barley greens, wheat grass, alfalfa and chlorella. These interesting plants contain various antioxidants, among other nutrients, shown to reduce the risk of various chronic diseases brought about by oxidative stress (Olson JA et al., 1992). Besides being great sources of antioxidants, the greenery provided in the Multi-Green Blend™ provides digestive enzymes, cholesterol-lowering agents, natural antibiotics, blood purifiers, and is rich in vitamins and minerals. In fact, recent research has demonstrated chlorella (found in the Multi-Green Blend™) to treat Fibromyalgia, high blood pressure and even colitis (Merchant RE, Andre CA, 2001).

INDIVIDUAL FOOD NUTRIENTS:

If all these fruit, vegetable and greens extracts weren't enough, Viva Vitamins' Phyto-Pak goes on to include additional nutrients found in other sources of foods and herbs. For example, the Individual Food Nutrients portion of the Phyto-Pak

contains green tea extract which recent studies suggest a mechanism for its anticarcinogenic properties (Gupta S et al, 2001). Along with green tea and many others, the Phyto-Pak also contains extracts of garlic, which has been recently demonstrated to greatly reduce the risk of prostate cancer (Hsing AW et al., 2002).

Purpose:

The main goal of Viva Vitamins' Phyto-Pak is to provide the consumer with a daily supplement pack consisting of one of the most extensive lists of plant derived nutrients on the market. For those of us who don't have the time to eat raw produce and exotic fruits by the pound each day, the Phyto-Pak can be our secret weapon with its near-innumerable legion of phyto-medicines for achieving optimal health. The convenience of having such an awesome array of plant and food sources in a tablet form eliminates the need to swallow handfuls of freeze-dried vegetation as other green food products require. This nutrient-dense buffet of the plant kingdom leaves little else to be added to daily supplementation to sustain basic physiological health.

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