

# Rationale For *Vitamins & Minerals*

Countless people and animals have survived through the millennia without supplements, so why would we need them now? Why should something so seemingly artificial as pills and capsules be required to create what should be so natural – health?

## VITAMIN & MINERAL Foundation Formulas

W Y S O N G

### OPTIMAL™

Vitamins and trace minerals formulated to achieve optimal health benefits without risk of overdosage. Provided in the most bioavailable form. Assimilation enhanced by as much as 250% with herbal piperine extract.

### ORGAMIN™

A spectrum of major minerals at optimal levels from natural sources. Complexed organically for safe and efficient bioavailability.

### CHELAMIN™

A unique, naturally chelated, organic trace mineral complex derived from ancient composted sea vegetation and fresh sea kelp. No synthetics. Contains over 74 trace minerals.

Wysong vitamin and mineral supplements are designed to be cycled with and synergistically enhanced by the entire spectrum of Wysong vitamin, mineral, enzyme, probiotic, antioxidant and essential fatty acid Foundation Formulas™.



### The True Natural Diet

In fact, supplements are not necessary for organisms that are exclusively eating the diet to which they are genetically adapted. That diet consists of those foods which can be eaten raw, exactly as they are found in nature.

For humans and domesticated pets, this would consist of meats, eggs, fruits, nuts, and vegetables. These are the foods we would have to eat if we were turned loose in the wild to subsist entirely on what could be eaten as is, in nature, without the use of fire.

If we compare this genetically-ideal model with what is common fare today, we see a remarkable disparity. The majority of modern foods are now processed, agriculturally based products which could not be found in sufficient quantity in nature to sustain life, nor could they be eaten in their raw, unprocessed form. For example, even whole grain bread is not a true natural food since it is derived from seeds that could not be gathered in sufficient quantity in nature, nor could they be eaten raw without toxicity. In order to be eaten, they must be grown in quantity in an agricultural environment, milled, mixed with leavening agents, and baked.

### Processed Foods - A Compromise

In our modern world, processing and cooking are assumed. But every manipulation – including drying, baking, freezing, extruding, dehydrating, puffing, retorting, frying and preserving – vitiates the natural nutritional value of the starting materials. In effect, once a natural food is harvested by a processor it is all downhill from there. (Excepted are those foods which would be toxic if they were consumed raw, and thus processing at least renders them less toxic and somewhat utilizable; these would include all products made from grains and legumes.)

### Agricultural Anemia

Adding to this problem is the compromised quality of modern agricultural products. Crops are bred for yield, not nutritional value. A large, plump (even if nutrient-poor) ear of corn is more profitable than a smaller ear that may contain higher nutritional value. Crops are sold by weight or volume, not nutritional quality. Also, modern fertilizers primarily replenish just three of the dozens of nutrients a

crop pulls from the ground: nitrogen, phosphorus and potassium (NPK). The Earth is in effect mined. In the past, it was farmed using crop rotation and manure fertilization. Waste now goes to landfills and sewage plants, not back to the land to replenish it. The result: nutritionally anemic crops and impoverished foods.

Therefore, since the modern processed diet is less than what it is meant to be, it is reasonable to conclude that something must be brought back to it. All supplementation, and fortification of modern foods, is nothing more than an attempt to bring the artificially manipulated processed foods we presently eat closer to the nutritional value of the foods we are genetically adapted to.

The bottom line is that if an organism is able to eat a varied diet consisting entirely of the natural, raw foods to which it is genetically adapted, there would be little or no reason for dietary supplementation. If the diet is anything less than this, then supplementation would be indicated.

### **The Example of Vitamin C**

In order for nutritional researchers to determine the required level of specific nutrients, diets must be designed of known nutrient content with a specific deficiency in the nutrient being studied. Then varying doses of the nutrient can be added to the diet to determine at what level symptoms of deficiency disappear.

In a recent issue of the *American Journal of Clinical Nutrition*, an experimental vitamin C-depleted menu is described (refer to Figure 5, Antioxidant page 4). The choices are astonishing. They are the very foods that the majority of people now consume! By eating these common foods, a person will restrict vitamin C intake to less than 5 mg per day. The bare minimum RDA established for vitamin

C is 60 mg per day, and even this is highly contested as being far too low. There is a huge body of research now demonstrating that humans need several hundred milligrams (some believe more than a thousand) per day to achieve optimal health.

How easy it is today to be eating a vitamin-deficient diet while eating what is perceived to be healthy “normal” food.

Of special note here is the total absence of fresh, raw foods. This is yet another proof that good nutrition is ultimately linked to the amount of fresh, raw foods consumed daily.

### **Everyone is Deficient**

Virtually nobody today achieves the ideal eating goal of a varied diet consisting entirely of natural, raw foods. Not only is this ideal not achieved, but minimum goals aren't achieved either. Consider these proofs:

- Poor food selection and variety results in people on average only receiving 70% of the RDA (a minimal nutritional requirement) for most essential nutrients.

- In the NHANES follow-up study of over 10,000 men and women, on a given day:

- \* 46% omitted fruit
- \* 25% omitted dairy
- \* 17% omitted vegetables
- \* 5% omitted meat and grain

- Of those who consumed only one or two food groups:

- \* 90% reported no fruit
- \* 80% omitted vegetable
- \* 80% omitted dairy

- On a given day in the USDA CSFII 1989-91 study of almost 150,000 Americans:

- \* 79% did not consume even one serving of eggs, legumes or nuts.

- \* 47% did not consume even one serving of fruit or fruit juice.

- \* 21% did not consume even one serving of milk or milk products.

- \* 12% did not consume even one serving of meat, poultry, or fish.

- \* 10% did not consume even one serving of vegetables.

- Over three consecutive days of the same survey, the percentage of people failing to achieve even minimum nutrient levels (RDA/RDI) were as much as:

- \* 100% for vitamin C
- \* 95% for vitamin E
- \* 80% for vitamin A
- \* 70% for folic acid
- \* 40% for vitamins B<sub>1</sub> and B<sub>2</sub>
- \* 20% for vitamin B<sub>12</sub>

### **The “Varied Diet” Myth**

Now there are those, even within scientific circles, who would claim that as long as we eat a “varied diet” and foods that are properly fortified (which, as you can see, we don't), our basic nutritional needs will then be met. But this reasoning is based on the false assumption that consuming minimum levels of nutrients (which have been shown by research to prevent overt nutritional deficiency diseases in the general population) is sufficient to prevent any disease in any individual.

Thus, nutritional scientists have devised standards such as the recommended daily allowance (RDA) for essential nutrients. But the problem with achieving only RDA levels of nutrients in the diet is that not everyone fits the average. Some people require much more of certain nutrients, while others may require less.

Here is an actual example. Folic acid is very important in keeping homocysteine levels such that they do not contribute to heart disease. In recent research it was found that within a group

of over 18,000 individuals who had been screened and determined to have high homocysteine concentration, supplementation with 0.2 mg per day of folic acid normalized the homocysteine levels in only a little over half of the study group. Others in the group were found to require as much as 5 mg per day for as long as 7 weeks before homocysteine levels were brought into a healthy range. This means that the genetic individuality of a large portion of this population was such that they required as much as a 25-fold increase in recommended levels of folic acid supplementation in order to avert homocysteine-related cardiovascular disease.

In another study conducted at Harvard Medical School, researchers found that 57% of Americans, including those who take RDA levels, are deficient in vitamin D. Of these, approximately 22% are severely deficient.

These studies demonstrate that even if supplementation at recommended minimums was taken, a significant percentage of the population would still remain at risk due to their biochemical individuality.

### **Everyone is Not Average**

Everyone is biochemically distinct. Treating every individual as if they fit the average does not work. Similarly, a classroom teacher cannot teach a lesson at an “average” pace and not lose many students at both ends of the ability spectrum.

You are not “average,” requiring only RDA levels of nutrients, if you:

1. Are under emotional stress.
2. Desire to enhance your immunity.
3. Wish to reduce your risk of developing cardiovascular disease.
4. Wish to reduce your risk of developing cancer.

5. Wish to reduce your risk of developing osteoporosis.
6. Wish to reduce your risk of developing macular degeneration of the eye.
7. Have skin problems.
8. Smoke cigarettes.
9. Are regularly exposed to second-hand smoke at home or work.
10. Frequently drink alcohol.
11. Take birth control pills.
12. Are pregnant.
13. Are over the age of fifty.
14. Are post-menopausal.
15. Exercise more than 3 times per week for one hour at a time.
16. Breathe polluted air.
17. Are recovering from trauma or surgery.
18. Are growing rapidly.
19. Are taking pharmaceuticals regularly.
20. Presently have, or are recovering from, disease.

Each of the above indications for consuming higher than RDA levels of vitamins and minerals is proven by good scientific research. Since everyone would fall under at least one of these categories, and most would fall under several categories, the benefits of supplementation become apparent. The evidence is now overwhelming that good nutrition lies at the base of our opportunity to achieve maximum living potential.

### **Proof of Supplement Value**

What follows is only a partial discussion of some of the compelling evidence that nutritional supplementation is important to health.

Cardiovascular disease, which primarily includes heart attacks, afflicts almost 1 in 4 Americans. Three Americans suffer heart attacks every minute and it is the largest killer of both men

and women. The income to the medical community from this disease alone is almost \$150 billion. The evidence is now essentially conclusive that processed foods, combined with a deficiency of a variety of vitamins and minerals, including vitamins C, E, and others, cause cardiovascular disease.

Vitamin E has been shown to be protective against the development of cardiovascular disease. In one study consisting of 2,002 patients with angiographically proven atherosclerosis, it was found that supplemental vitamin E could reverse existing disease and decrease mortality. Another British study showed that doses of vitamin E far above RDA levels reduced heart attacks by 75%.

Lipid peroxidation (oxidation of body fats) creates toxic free-radicals which can induce atherosclerosis and a variety of other degenerative diseases, including cancer. Studies have shown that supplementation of vitamins A (beta-carotene), C and E, for example, can decrease this oxidative toxicity.

The influence of supplements even on exercise, a form of stress, is impressive. Aggressive exercise can result in production of oxidative waste products in the body, which can damage genetic materials such as DNA. Research has demonstrated that supplementation of vitamin E, for example, can prevent this. Vitamin C supplementation can decrease upper respiratory infections in marathon runners and even prevent delayed-onset muscle soreness, which occurs after unusual physical activity. Vitamin E tissue status is lowered during exercise. Supplementation decreases exercise-induced tissue damage and can increase physical performance (anaerobic threshold) even at high altitudes. Just 20 to 50 minutes of exercise per day increases vitamin requirements. If sufficient supplementation of B vitamins and vitamin C is not given, there will be decreased

physical performance (VO2 max), which is reversible when the vitamins are restored. Even fine motor control sports, such as target shooting, have been shown to be enhanced with B vitamin supplementation.

Not only exercise, but also various forms of emotional and environmental stress can increase the demand for many nutrients.

Such examples proving that supplements can prevent and reverse serious modern diseases could be virtually endless, since literally tens of thousands of scientific studies have shown the influence of nutrients on health and illness.

[I invite the reader to review, by way of the index of the *Health Letter*, my research over the past 10 years demonstrating the link between disease and improper nutrition. This work is scientifically referenced and will permit one to prove beyond any doubt that the modern diet is inadequate and that the only hope is either to restore it to its raw, natural form or, as an alternative, (although inferior) to appropriately supplement.]

### **Health Is Not The Absence Of Obvious Disease**

It is very difficult to convince people or motivate ourselves to continue with expensive and tedious nutritional supplementation to prevent what is not evident. It is hard to be convinced that the absence of disease does not mean it is not incubating within.

The serious diseases of modern life are latent diseases. They smolder slowly within, beginning in infancy (starting with the grand-daddy of all junk foods, infant formula), and continue on through life with colas, Ding Dongs™, Twinkies™, french fries and

Jolly Ranchers™. The resiliency of youth masks the diseases incubating within. But when the adaptive reservoir is empty and we reach adulthood, these diseases slowly begin to surface, beginning with a loss of vitality we attribute to simply “aging,” and culminating in one or many of the degenerative conditions such as cardiovascular disease, cancer, obesity, arthritis and so forth.

That this ominous disease saga is unfolding within each of us is proven. For example, the autopsies of U.S. soldiers from Korea and Vietnam who were killed in action in their late teens and early 20’s revealed that practically all of them, even though they showed no apparent physical problem while alive, had already developed atherosclerosis, in some cases advanced, in their coronary vessels.

Life is not merely living, it is living in fullness, in full health. Health is not the least sickness.

### **Intellect Required**

Through the years as I have discovered one deficiency or imbalance after another common to modern living, I began to accumulate numerous bottles of nutritional supplements at my dinner table. For those of you who have tried to keep pace with nutritional discovery, I’m sure you know what I mean. But after a while, it becomes so overwhelming it is hard to find the dinner plate among the forest of supplement bottles. It’s easier to just forget the whole thing. But the evidence is too overwhelming that our hope for optimal health can only be served by converting the diet to its natural form or by supplementation, so that giving up or dismissing it would surely be to our peril.

The intelligence that once was required to hunt and gather and survive in the wild must now be redirected

toward managing life when countless options are readily available. The bow and spear are now replaced with the shopping cart. Cunning and memory once used to capture elusive prey must now be used to design a diet and supplement program that will prevent a future disease, which we have intellectually determined will likely occur if we do not take action now while we are healthy.

Not only must we become intellectually convinced that appropriate lifestyle, eating and supplementation are necessary for a full life, but we must stay committed. To help reinforce that commitment to myself and others, I continually review scientific literature, gathering information from it that further corroborates this view and lends continuing support and encouragement for continuing with these healthy living objectives. It is easy for me – even having made a life’s work of this and being constantly immersed in the evidence – to become lax and lulled into thinking that all of the effort I am expending is not really necessary. This thinking of course always occurs while I am healthy. I see others around me who are not doing what I am doing, and yet who are apparently healthy as well. But I understand fully, at least intellectually, that I must continue on with this if I am going to give myself the best chance of escaping that which is befalling the majority as we advance in years.

If we succumb to one of these diseases, or many of them, at least we can be comforted by the fact that we did all we could to prevent them and what has happened is likely a genetic weakness or a result of damage that occurred in the earlier years of ignorance and indiscretion.

### **Are Supplements Dangerous?**

One final consideration. Many in the medical and even the nutritional community have for many years lobbied that supplements are ineffective

at best and toxic at worst. This position is taken at the same time that dangerous and ineffective (in terms of a true cure) drugs are dispersed like M&M's.

It is interesting that although food and drug regulatory agencies and the conventional medical and nutritional establishment warn of the dangers of taking vitamins in excess, such paranoia is based upon little foundation. A trillion dollar medical industrial complex apparently fears the inroads which self-care and healthy food and supplement proponents may make on vested interests. The public is therefore continually cautioned about the dangers lurking within health food stores. But, on the other hand, thousands are maimed, disabled, and killed by "proper" pharmaceuticals which have been sanctioned by the same regulatory and professional establishments. Adverse drug reactions just in hospitals are the fourth leading killer today, according to the *Journal of the American Medical Association*.

Notice that the total vitamin fatalities as reported by national poison control centers is zero for the years 1983 - 1989, but over 2,000 fatalities have been reported for the same period by the same centers as a result of receiving properly "proven" and approved pharmaceuticals. (see Figure 2)

Should our tax dollars be supporting alphabet regulatory agencies who pester health food stores, or should regulators redirect their focus to policing the extremely dangerous pharmaceutical industry? The answer is obvious but the solution will occur no time soon because "approved" drugs are where the money is.

Although even synthetic food supplements are essentially nontoxic, especially when compared with pharmaceutical preparations, there is justified caution about consuming any

isolated synthetic chemical, whether it is ostensibly a natural duplicate or not. Isolated vitamins or other nutrients do not even exist in nature. Rather they are a part of a complex milieu within the food itself. Ensnared within a natural food matrix, nutrients are protected, and are associated with a broad range of accompanying nutrients which build the health and resistance of the organism. Foods as supplements, rather than synthetic isolates, seem clearly to be a wiser choice.

Unfortunately, state-of-the-art research buried within esoteric scientific journals is decades ahead of where the public or the practice of medicine is. The medical community, upon whom we should rely for the most current and accurate information, is entrenched in protocols and conformity and resists innovation until the public exerts significant (financial) pressure. Thus, advancement depends upon a few lonely voices who must endure criticism, harassment and even persecution by the establishment who, because of vested economic interest, want everything to remain exactly as it is.

#### Wysong Supplement Advantages

Optimal™ contains vitamins and trace minerals at optimal levels to help the body achieve its best overall health. These vitamins and minerals are included in their most bioavailable forms, which means that you will get the most out of the vitamin or mineral that can be gotten from a supplement. Just because a supplement carries a certain number of milligrams of a given nutrient does not mean that this will be the amount of that nutrient the body will absorb. Thus, the form of the nutrient is just as important as the amount of

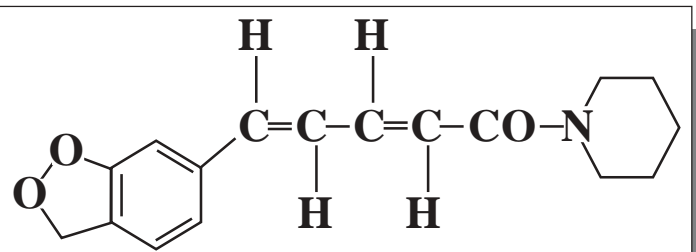


Figure 1.

Piperine – Black Pepper Extract

nutrient present. Wysong vitamin and mineral supplements contain these nutrients in their most bioavailable forms.

For example, Optimal incorporates niacin-bound chromium, which is more bioavailable (more easily absorbed into the blood), more efficacious and safer than chromium picolinate.

The black pepper extract piperine, which has been shown to increase the absorption, and thus blood levels, of many vitamins and minerals by as much as 250% is also in Optimal. In the intestines, piperine has been found to induce the release of catecholamines (epinephrine and norepinephrine), which stimulate the beta-adrenergic receptors that are partially responsible for nutrient absorption by enhancing thermogenesis.

Additionally, this extract has been shown to elevate both the level of circulating thyroid hormone (which increases the rate of metabolism), and the enzyme activity of ATPase (which increases the burning of fuel and the release of energy from ATP). Further, there is facilitation of nutrient absorption by alleviating inflammatory reactions at the site of nutrient absorption. The net effect is a localized thermogenic effect resulting in increased metabolism, energy utilization, the generation of heat, and increased nutrient absorption.

Other mechanisms by which Optimal may stimulate the uptake of

Cause of Mortality	1983	1984	1985	1986	1987	1988	1989	Total
Vitamins	0	0	0	0	0	0	0	0
FDA approved and proven pharmaceuticals	62	193	227	325	325	434	453	2019

Figure 2.

nutrients include increasing micell formation and stimulation of active transport of amino acids.

In clinical trials, healthy volunteers were administered Optimal ingredients along with selected nutrients. A study of six volunteers evaluating the absorption of vitamin B<sub>6</sub>; a 14-day study of 12 volunteers evaluating the absorption of beta-carotene; and a six-week study of ten volunteers evaluating the absorption of selenium were all performed.

Results of these trials showed that intestinal absorption of all studied nutrients, as evaluated by blood levels, were significantly increased compared with control groups. Vitamin B<sub>6</sub> blood levels were 2.5 times higher after 2 hours, beta-carotene blood levels were 60% higher, and blood levels of selenium were increased 30%. There were no side effects.

Orgamin™ includes four different organic sources of calcium: seaweed, milk, coral, and bone (hydroxyapatite). Orgamin also includes organically-complexed sources of potassium, magnesium, and sulfur. The benefits of such organically-complexed minerals are described below.

Chelamin™ provides over 74 organically-chelated trace minerals taken directly from ancient composted sea vegetation and fresh sea kelp. Because it is taken from the Earth in its unaltered state, the balance of minerals in Chelamin matches exactly that which is found in nature. The unique, uplifted geologic formation from which Chelamin is derived is a pre-industrial source that assures its freedom from modern pollutants.

Inorganic minerals which are non-organically complexed (non-chelated), as are commonly used in conventional supplements, must first be chelated within the body in order to be properly absorbed. Chelation allows for the mineral's easy passage through the intestinal wall into the blood, resulting in increased mineral absorption. Improper conditions or lack of appropriate ligands in the digestive tract (organic molecules which protect the mineral from entering unwanted chemical reactions) can result in highly reduced mineral absorption even though adequate amounts have been consumed.

Chelamin provides a naturally balanced source of an incredibly wide array of minerals, which helps assure a complete mineral intake without creating potential deficiencies or toxicities that can occur from consuming isolated minerals or other nutrients.

The ingredients in Wysong vitamin and mineral supplements have a significant body of scientific research demonstrating their efficacy in helping the body achieve optimal levels of needed nutrients. A partial listing of scientific references demonstrating the effectiveness and safety of these ingredients follows this monograph.

Wysong vitamin and mineral supplements, as with all Wysong Foundation Formulas, are designed to enhance and complement the lifestyle and dietary guidelines in the Wysong Optimal Health Program. Taken alone, these supplements will exert benefit, but these benefits will be greatly enhanced by the synergy of using them in conjunction with these other Wysong-designed programs.

Additionally, Wysong vitamin and mineral supplements should not be viewed as pharmaceuticals with which immediate powerful results may occur, (often with a tradeoff of powerfully dangerous side effects).

Problems that may have developed in the body over decades cannot be expected to be resolved in a day or two. Restoring healthy balances in the body takes time and usually several weeks must pass before results can be seen. Patience and commitment to an ideal of safe and natural nutrition are critical to long-term results.

Wysong vitamin and mineral supplements are carefully designed to be safe and to avoid excesses or imbalances. If taken with other Foundation Formulas, although they may contain some of the same ingredients, excesses above researched allowable limits will not occur. This also applies to taking Wysong vitamin and mineral supplements in conjunction with the Nutrient Support Formulas. Uniquely among supplement programs, all Nutrient Support Formulas and all Foundation Formulas can be taken simultaneously without exceeding safe limits.

However, intolerance to any food item, regardless of how natural it may be, can occur. This is why all Wysong supplements should be rotated as described on bottle directions and in the Foundation Formula guidelines.

To avoid disrupting the balances designed into the Wysong supplement program and to prevent potential excess, it is not recommended that other non-Wysong supplements be taken in conjunction with this Wysong program unless specifically recommended by a nutritionally knowledgeable physician.

*These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure, or prevent any disease.*

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