Multivitamin & Mineral

FOOD NUTRIENT SERIES
SÉRIE NUTRIMENTS ALIMENTAIRES

Food is the dominant means of obtaining nutrients. However, in recent years, the nutritional value of food sources has decreased. As a result, supplementing our diet with vitamins and minerals has become common.

As the chart on this page indicates, food is the most effective nutrient delivery system. Yet Food Nutrients come closest to replicating the nutritional value of food. In contrast, chelated and isolated (USP) vitamins and minerals fall well short of providing the nutritional value of food (or Food Nutrients) and therefore provide less support to the body.

The Advantages of Food Nutrients

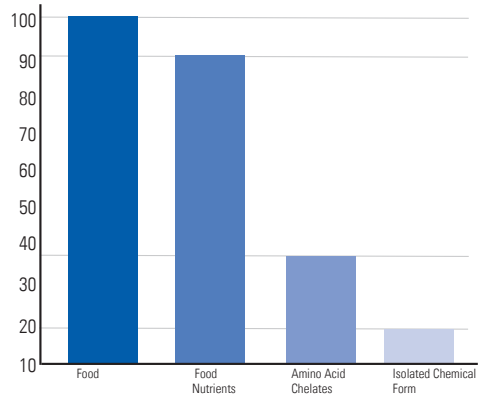
Being 90% effective and the closest form of supplementation to food, Food Nutrients allow for much greater absorption and more fully deliver the benefits of the vitamins and minerals they contain. In this way, they are fundamentally different from, and substantially more effective than, conventional chemically-based USP supplements, which are pharmaceutically produced as 'free state' compounds without the inherent advantage of a natural food matrix.

Food Nutrients:

1) Are more effectively absorbed into the bloodstream.
2) Remain in the bloodstream longer (and therefore are excreted more slowly in the urine).
3) Are considerably less prone to cause trace mineral toxicity.
4) Are more gentle on the stomach.
5) Perform significantly better in terms of physiological activity.

The higher quality, increased effectiveness and greater nutritional value of Food Nutrient supplements means that required dosages can be significantly lower than for other forms of supplements, the risk of unwanted effects are reduced and they offer a better 'value for money' proposition.

Multivitamin and Mineral: This natural Food Nutrient supplement has been carefully formulated to provide the optimal combination of nutrients the



Note: Refer to study on reverse side for a comparison of bio-availability of Food Nutrient and conventional vitamins.

Vegan Végétalien · Soy Free Soy Libre · Gluten Free Sans Gluten · Dairy Free Sans produits laitiers

Medicinal ingredients: Each tablet contains:

Vitamin B1/Thiamine (thiamin hydrochloride)	0.7 mg
Vitamin B2/Riboflavin (riboflavin)	0.8 mg
Vitamin B3 (niacinamide)	9 mg
Vitamin B5/Pantothenic acid (calcium d-pantothenate)	3 mg
Vitamin B6 (pyridoxine hydrochloride)	1 mg
Vitamin B12	0.5 mcg
Vitamin C (ascorbic acid)	30 mg
Vitamin D3 (cholecalciferol)	2.5 mcg (100 IU)
Vitamin E (d-alpha tocopherol acetate)	5 mg AT
Vitamin K1 (menadione sodium bisulphate)	20 mcg
Biotin	76 mcg
Folate (folic acid)	100 mcg
Boron (sodium tetrahydroborate)	0.5 mg
Calcium (calcium chloride)	9 mg
Chromium (chromium trioxide)	25 mcg
Copper (cupric sulphate)	0.25 mg
Iodine (potassium iodide)	75 mcg
Iron (ferric sulphate)	2.5 mg
Magnesium (magnesium chloride)	3 mg
Manganese (manganese chloride)	0.25 mg
Molybdenum (sodium molybdate)	5 mcg
Phosphorus (ammonium phosphate)	6 mg
Selenium (selenium dioxide)	50 mcg
Zinc (zinc chloride)	2.5 mg
Beta carotene	2.4 mg
Choline (choline chloride)	2.5 mg
Inositol	2.5 mg
PABA (Para-amino-benzoic acid)	2.5 mg
Potassium (potassium hydroxide)	6 mg

Non-medicinal ingredients: Stearic acid, magnesium stearate, silicon dioxide, carboxymethylcellulose sodium.

Recommended dose (adults): Take one tablet a day with food or as directed by a health care practitioner. Take a few hours before or after taking other medications.

Caution/warnings: Consult a health care practitioner prior to use if you are taking blood thinners. Consult a health care practitioner if you are pregnant or breastfeeding, or if you are taking sulfonamindes. Hypersensitivity (e.g. allergy) has been known to occur, in which case, discontinue use. Avoid with known allergy or hypersensitivity to soy or any of its constituents.

NPN 80049821 • 60 tablets

body most needs and is lacking in today's food and diets. It is formulated and manufactured in a natural food matrix format and provides the optimum structure for the body to absorb, and benefit from. Accordingly, it provides significantly greater effectiveness and nutritional benefit than traditional supplements.

Background

Vitamins and minerals are required for animal and human health. One of the most critical periods for vitamin and mineral nutrition is from birth to adulthood during the time of rapid growth. A deficiency of vitamins and minerals can lead to a slowing of growth, ill health and ultimately, death.

In this study, two different vitamin and mineral combinations are compared in a small mammal assay. Equal amounts of the two combinations are given to weanling rats depleted of body vitamin and mineral stores. The growth of the animals is used as a measure of the relative availability of the supplements.

Protocol

Sixteen weanling rats were divided into two groups of equal average weight. The One a Day (USP Isolate) group weighed 47.3 ± 3.8 grams and the FoodMatrix™ group weighed 47.1 ± 4.0 grams. All animals were individually housed. Each group was depleted of body vitamins and mineral stores by feeding a diet containing no vitamins and minerals for two weeks. Then they were repleted by feeding the same diet to which has been added either 10 USP Isolate Vitamin and Mineral tablets/kg of diet or 60 grams of FoodMatrix™ and Mineral Mix/kg of diet. The quantities of vitamins and minerals in the two supplements are listed below.

The recommended amount is taken from the "Nutrient Requirements for Laboratory Animals" published by the National Academy of Sciences in 1978. It is the amount recommended for optimum growth. As shown, the diet provides more than the minimum amount of most vitamins and minerals. It, however, does not provide sufficient amounts of calcium and phosphorous. It contains only the recommended amount of Vitamin E.

Vitamin and Mineral Composition Used

Component	Amount / kg food UPS	(Recommended) Amount / kg Food Food Matrix™
Vitamin A	50,000 I.U.	4,000 I.U.
Vitamin E	300 I. U.	300 I.U.
Vitamin C	600 mg	-
Folic Acid	4 mg	1 mg
Thiamine	15 mg	4 mg
Riboflavin	17 mg	3 mg
Niacin	200 mg	20 mg
B6	20 mg	6 mg
B12	60 ug	50 ug
Vitamin D	4000 I.U.	1,000 I.U.
Panthothenic Acid	100 mg	8 mg
Iron	180 mg	35 mg
Calcium	1000 mg	500 mg
Phosphorus	1000 mg	400 mg
Iodine	1500 mg	35 ug
Magnesium	1000 mg	400 mg
Copper	20 mg	5 mg
Zinc	150 mg	12 mg

The two groups of animals were pair-fed to insure that the amount of food eaten by both groups was the same. This means that differences in weight between the two groups was not due to differences in the amounts of food consumed. The animals were weighed weekly during the study.

The average weight of the two groups before the study was the same. The first two weeks were the depletion period and in both groups after two weeks there was only a slight weight gain relative to time zero. At the time of two weeks, the two groups were supplemented with equal amounts of vitamin and minerals and the FoodMatrix™ group began to record gains in weight indicative of repletion of body stores of vitamins and minerals. The USP Isolate group continued to maintain a constant weight indicating both stores of vitamins and minerals were not being repleted. At the end of three weeks, one of the USP Isolate group died and a second rat died at the end of four weeks. A plot of the results is shown in the accompanying graph.

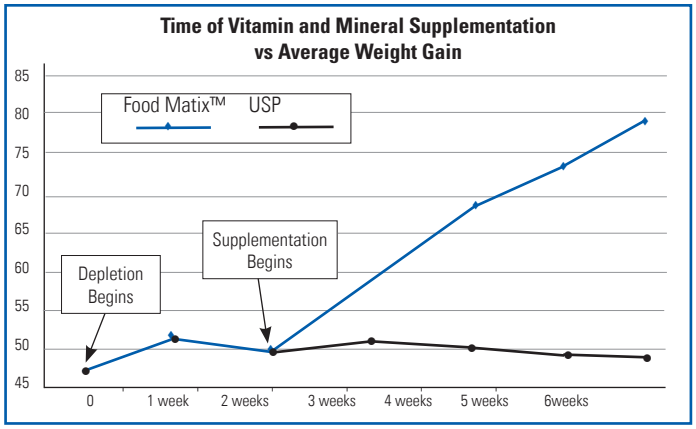
Study Results

The results of the study are shown below. Average Weights (in g)

Group	0	1 wk	2 wks	3 wks	4 wks	5 wks	6 wks
USP Isolate	47.1	51.6	49.0	51.3	50.6	49.2	48.6
Food Matrix™	47.3	51.1	49.5	58.4	68.0	72.7	80.4

Another difference in the two groups was their appearance and general health. The eyes of the USP Isolate group were almost closed by the end of five weeks. Their hair was fine and sparse. One of the USP Isolate animals had scratched one of his eyes out. The USP Isolate group was very sluggish in movements as compared to the FoodMatrix™ group.

These results indicate that the vitamins and minerals in the FoodMatrix™ product are much more available to the growing rodent than the vitamins and minerals in the USP Isolate product.



Study by: Prof. Joe Vinson, PhD, University of Scranton, 1988.