MULTI + PHYTO

A multivitamin and phytonutrient blend to support foundational health*

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WHAT IS MULTI+PHYTO?

Multi+Phyto is a first-of-its-kind multivitamin, mineral, and phytonutrient blend specifically formulated to mimic the nutrient intakes found in an optimal evolutionary human diet. This formula helps promote athletes' optimal health and performance by supporting foundational nutritional needs.* The amount of nutrients provided by Multi+Phyto were devised based on the concept of evolutionary adaptation of human physiology corresponding to a whole food, nutrient-dense diet. In addition to bio-identically sourced vitamins and minerals, this formula contains targeted amounts of phytonutrients from fruit and vegetable extracts that were likely consumed in greater quantities in the evolutionary past than in modern diets.

Multivitamin and mineral blends are important for an athlete's overall health and physical performance, as they play critical roles in many systems, including gastrointestinal, immune, skeletal muscle, and heart function.[1] These nutrients are essential for the proper functioning of the human body; however, humans are incapable of producing these compounds, so they must be obtained from the diet or supplementation. Unfortunately, the nutrient density of the modern food supply has declined significantly compared to amounts found in the 1950's.[2] As a result, supplementation has become an increasingly reliable way to help maintain adequate nutrient intake for athletes.*

INGREDIENT AND FORMULA HIGHLIGHTS

- Formulation corresponds to amounts found in whole food, nutrient-dense evolutionary diets for optimal health*
- Bioidentical and bioactive forms of B vitamins for enhanced bioavailability
- Chelated minerals for superior absorption and bioavailability
- Vitamin Highlights:
  - Vitamin A from a mixture of carotenoids from sustainable palm oil and preformed vitamin A, retinyl palmitate
  - Vitamin C from ascorbic acid and acerola cherry to support antioxidant status, collagen biosynthesis, healthy immune function, catecholamine metabolism, and iron absorption*
  - Vitamin B1 as thiamin HCl and benfotiamine
  - Vitamin B2 and B6 in the naturally occurring forms of riboflavin-5-phosphate and pyridoxal-5-phosphate (P5P), respectively
  - Vitamin B3 as niacinamide and niacin
  - Vitamin B5 as pantothenic acid and pantethine (as Pantesin®)
  - Vitamin B9 (folate) as methylated, bioactive form of 5-methyltetrahydrofolate (5-MTHF)
  - Vitamin B12 in the naturally occurring, methylated form of methylcobalamin for superior bioavailability
  - Vitamin D3 to promote the maintenance of serum vitamin D and support immune and bone health*
  - Vitamin E as a tocopherol free blend of gamma and delta tocotrienols sourced from annatto seeds that may help support healthy antioxidant status*
  - Vitamin K is provided as two naturally occurring forms — K1 (the form that is established as essential) and vitamin K2 (as MK-4)
- Ingredients that support an optimal evolutionary human diet:
  - Comprehensive blend of phytonutrients, such as lutein, lycopene, and resveratrol, to support redox balance and antioxidant status in the body*
  - Various fruits and vegetable extracts, including a wild blueberry blend, broccoli sprouts, and muscadine grape power
  - Lecithin is included to enhance the absorption of other bioactive ingredients and as a source of choline
- Gluten-free, dairy-free, soy-free; non-GMO
- NSF Certified for Sport®

SUPPORTS PROPER ENERGY PRODUCTION*

Multi + Phyto features nutrients that can support overall health and athletic performance.[3–7] B vitamins play a role in the body's energy production and may help support exercise performance through healthy energy production and normal cellular repair.[4] They are used by the cells to convert carbohydrates, fats, and proteins into usable energy.[4] In a randomized controlled trial (RCT) of 32 healthy adults aged 20 to 30, supplementing with thiamine, riboflavin, vitamin B6, B12, and vitamin E for 28 days resulted in a 1.26-fold increase in the time it took to run until exhausted compared to the placebo group.[4]

Magnesium is another vital nutrient for proper energy production.* The conversion of fats and carbohydrates to usable energy within the cell is reliant on adequate magnesium status. Adenosine 5'

triphosphate (ATP), the primary energy molecule of the body, must bind to magnesium to be biologically usable by the human body. This is especially important for athletes, as low magnesium status may lead to increased feelings of fatigue.[8] Athletes may also have higher requirements for magnesium than non-athletes, as was seen in a systematic review of 855 athletes: despite higher dietary intake of magnesium, their serum status was lower compared to non-athletes, suggesting a higher need than the current RDA (400 mg/day for men and 310 mg/day for women).[5]

MAY HELP MITIGATE THE ADVERSE EFFECTS OF EXERCISE-INDUCED OXIDATIVE STRESS*

Phytonutrients (plant compounds) may help support a healthy inflammatory response to exercise.* Intense exercise can increase the production of reactive oxygen species (ROS), free radicals, or reactive nitrogen species (NOS).[9] In the long term, exercise-induced oxidative stress can play a healthy role in the body by stimulating muscle regeneration and increasing the endogenous antioxidant system capacity.[10] However, in the short term, exercise-induced oxidative stress may exceed the body's antioxidant status capacity, causing damage to cells and tissues and unhealthy inflammatory responses. To help mitigate the adverse effects of excess oxidative stress, it may be helpful to supplement with bioflavonoids, quercetin, wild blueberries, broccoli, trans-resveratrol, and lycopene along with other beneficial phytonutrients found in Multi + Phyto.*

Flavonoids (found in the citrus bioflavonoids in this product) may help attenuate exercise-induced fatigue and muscle impairment due to acute muscle damage from exercise.[11,12] An RCT on 12 men found that after 14 days of supplementing with 1,000 mg of quercetin, the men had less severe muscle weakness after exercise-induced muscle damage than the placebo. Blueberries, which contain a flavonoid called anthocyanin, have also been found to help mitigate exercise-induced muscle tissue damage and heightened inflammatory markers.* A randomized study on 49 healthy untrained adults showed that those who supplemented with the equivalent of one cup/day of blueberries for 18 days showed positive effects on inflammatory markers for four days after a 90-minute bout of exercise compared to the placebo group.[12]

MAY SUPPORT MINERAL STATUS IN ATHLETES*

Trace minerals featured in Multi + Phyto, such as zinc, selenium, copper, manganese, and chromium, are needed for proper physiological function but are often deficient even in healthy populations, such as active individuals.[6,13] Those consuming low or no animal foods may be at an even higher risk of inadequate micronutrient intake and could benefit from supplementation, as seen in an observational study on 75 healthy Danes adhering to a vegan diet for a minimum of one year.[14] Furthermore, trace minerals play roles in a multitude of physiological processes, and exercise can lead to changes in the status and excretion of minerals. For instance, a controlled study on 21 healthy runners found that high-intensity running led to decreases in selenium and zinc concentrations compared to sedentary populations.[15]

BENEFITS*

- May support exercise performance[4,11]
- May help mitigate the effects of exercise-induced oxidative stress[11,12]
- Supports micronutrient status in the body[6,13]
- May support muscle strength[3,7]

HOW TO TAKE

Take 4 capsules per day with meals (divided dosing recommended).

Warning: If taking a blood-thinning medication, consult a health-care practitioner before using.

Supplement Facts

Serving Size 4 capsules
Servings Per Container 30

Amount Per Serving		% Daily Value
Vitamin A (as Mixed Carotenoids and Palmitate)	1500 mcg RAE	167%
Vitamin C (as Ascorbic Acid and Acerola)	400 mg	444%
Vitamin D (as Cholecalciferol)	50 mcg (2000 IU)	250%
Vitamin K (as K1 Phytonadione and Vitamin K2 Menaquinone-4)	450 mcg	375%
Thiamin (as Thiamin HCl)	2.4 mg	200%
Riboflavin (Vitamin B-2)(as Riboflavin-5-Phosphate)	4.2 mg	323%
Niacin (as Niacinamide and Niacin)	60 mg NE	375%
Vitamin B-6 (as Pyridoxal-5-Phosphate)	6.7 mg	394%
Folate (as Quatrefolic® [6S]-5-methyltetrahydrofolate, glucosamine salt)	680 mcg DFE	170%
Vitamin B-12 (as Methylcobalamin)	200 mcg	8333%
Biotin (as d-Biotin)	100 mcg	333%
Pantothenic Acid (as d-Calcium Pantothenate)	5 mg	100%
Calcium (as di-Calcium Malate)	50 mg	4%
Magnesium (as di-Magnesium Malate)	150 mg	36%
Zinc (as Zinc Bisglycinate Chelate)	15 mg	136%
Selenium (as SelenoExcell®)	100 mcg	182%
Copper (as TRAACS® Copper Bisglycinate Chelate)	1 mg	111%
Manganese (as TRAACS® Manganese Bisglycinate Chelate)	1 mg	43%
Chromium (as TRAACS® Chromium Nicotinate Glycinate Chelate)	200 mcg	571%
Molybdenum (as TRAACS® Molybdenum Glycinate Chelate)	100 mcg	222%
Wild Blueberry Blend [Canadian wild blueberries (*Vaccinium angustifolium Ait., Vaccinium angustifolium ssp nigrum, Vaccinium myrtilloides*)(berry)]	100 mg	*
Muscadine Grape Powder (*Vitis rotundifolia*)(skin and seeds)	100 mg	*
Citrus Bioflavonoids	100 mg	*
Broccoli Blend [Broccoli Powder Extract (*Brassica oleracea L.*)(seed) (TrueBroc®), Mustard Powder (Sinapis alba)(seed)]	50 mg	*
Quercetin	50 mg	*
Vitamin E Isomers (DeltaGold®) [as delta and gamma tocotrienols from annatto (*Bixa orellana*)(seed)]	25 mg	*
Trans Resveratrol (as Veri-te™)	10 mg	*
Pantethine (as Pantesin®)	5 mg	*
Lutein Esters	3 mg	*
Lycopene	3 mg	*
Boron (as Bororganic Glycine)	1 mg	*
Benfotiamine	1 mg	*

*Daily Value not established

Other Ingredients: Cellulose (capsule), microcrystalline cellulose, sunflower lecithin, vegetable stearate, silicon dioxide.

34 DIFFERENT VITAMINS, MINERALS & PHYTONUTRIENTS PER SERVING

PROVIDES 50 MCG (2,000 IU) OF VITAMIN D3 PER SERVING

FORMULATED WITH WILD BLUEBERRY BLEND

NSF CERTIFIED SPORT

SOY-FREE · GLUTEN-FREE · DAIRY-FREE · 0 GRAMS SUGAR · NON-GMO · HIGHLY ABSORBABLE*

*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.

PLM120-DS

References

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