DFH Complete Multi™

designs for health®

A novel concept in defining levels and forms of supplemental vitamins and minerals

By Cristiana Paul, MS and Amy Berger, MS, CNS

DFH Complete Multi™ (DFH CMs) is offered in three versions: DFH Complete Multi™ with Copper and Iron, DFH Complete Multi™ with Copper, and DFH Complete Multi™ (free of copper and iron). These products are four-a-day multivitamins designed to provide nutrients that are not consistently provided in adequate amounts in average diets. Their formulation has been guided by criteria that go beyond meeting the established Recommended Dietary Allowances (RDAs) and Adequate Intakes (AIs). They take into account average intakes in the US, which reveal common nutrient insufficiencies, upper tolerable levels of intake (established by the Institute of Medicine) and most importantly, principles of evolutionary biology and human physiological adaptation to a whole food, nutrient-dense diet.

DFH CMs include a tocopherol-free form of vitamin E isomers (a blend of gamma- and delta-tocotrienols, which have unique health and anti-aging benefits) and a unique blend of vitamin K1 with various forms of vitamin K2. They also include a natural form of folate that addresses common genetic polymorphisms, and an effective dose of vitamin B12 to help overcome various malabsorption syndromes. Calcium, magnesium, zinc, manganese, molybdenum, chromium, iron, copper and boron are provided as highly bioavailable chelates. Mineral chelates do not depend on stomach acid for liberation and may be more effective for those with hypochlorhydria or other conditions that impair mineral absorption. Chelated minerals are designed to bypass obstacles to absorption and assimilation, such as food phytates, oxalates, fiber, ionic minerals, and medications that interfere with mineral absorption. Chelates are often better tolerated and absorbed and are less likely to cause loose stools or other gastrointestinal discomfort.[28]

Rationale for setting ingredient levels in DFH Complete Multis

Tables 1 and 2 (links can be found at end of this techsheet) list the ingredient values in the three versions of DFH CMs in comparison with average intakes in the US (data from NHANES 2001–2002)[39] and estimates of the nutrient content of typical Paleo-style diets, along with the RDA/AIs and upper tolerable intakes (ULs).

The estimated Paleo era nutrient intakes are based on values reported by Cordain,[6] a recalculation of Cordain's data with more advanced nutrition analysis software, and the evaluation of another sample Paleo-style diet.[17-19] The data in Tables 1 & 2 show that a majority of the average nutrient contents in Paleo-style diets are significantly higher than the current US RDA/AI, with the exception of molybdenum, calcium and iodine, which are lower, while chromium and biotin are similar to the US RDA/AI. A four-capsule serving of DFH CMs offers comparable amounts of essential micronutrients to those found in a 2000 kcal "Paleolike" diet, with some adjustments based on average US intakes, RDA, nutrient bioavailability, and taking into consideration upper tolerable levels.

Comparison of DFH Complete Multis with commonly available multivitamin/multimineral formulas

The majority of commercially available multivitamin and mineral formulas are designed to meet 100% of the RDA or AI, or some percentage thereof. These levels represent the minimum intake required to reduce risk for overt debility, manifested by deficiency diseases such as scurvy or pellagra; they were not derived for the purpose of optimizing health and physiological function, nor reducing risk for age- or lifestyle-related degenerative diseases.[1]

The optimal intake of vitamins and minerals for the general population remains open for debate and is a topic of ongoing research. For example, research conducted since 2001 has investigated the potential to redefine the Australian RDAs for folate, B12, and other micronutrients to levels proven to support healthy DNA replication (also referred to as genomic stability), an important determinant of cellular health.[12-15] Interestingly, the newly proposed Australian RDAs are higher than US RDAs for B12 (7 mcg versus 2.6 mcg) and folate (700 mcg versus 400 mcg), as are the estimated Paleolithic era intakes (see Table 1). This is likely not a coincidence since folate and B12 are necessary for adequate DNA replication, which is in turn critical to successful human evolution.[16]

Other multivitamin and mineral formulas contain ingredients at levels 10–100 times higher than the RDA/AI, based on potential to neutralize genetic polymorphisms affecting nutrient status[2] or to compensate for nutrient depletions resulting from commonly used pharmaceutical drugs. However, with the availability of clinical markers of nutritional deficiencies and genetics-based tests and recommendations, it is no longer necessary to provide such high levels of B vitamins in foundational formulas. Rather, additional nutrients can be supplemented based on relevant tests such as GenomicInsight™ Genomic Health Profile (offered by Diagnostic Solutions). Unlike other DNA tests, GenomicInsight™ enables clinicians to customize reports using the most advanced artificial intelligence, which integrates findings from peer-reviewed research. For example, the levels of vitamins B2, B6, B12 and folate found in DFH CMs are adequate in maintaining healthy homocysteine (Hcy) levels for some individuals but not for those with single nucleotide polymorphisms affecting particular Hcy metabolic pathways and/or folate receptor activity.[20-22] The GenomicInsight™ report identifies which of these nutrients are required in higher doses in order to normalize Hcy levels. Other nutritionally relevant tests include NutrEval® (offered by Genova Diagnostics) and ALCAT Functional Cellular Assays (By Cell Science Systems).

Highlights

Vitamin E Isomers: provided as DeltaGold®, an annatto-sourced tocopherol-free blend of gamma- and delta-tocotrienols. Tocotrienols have higher antioxidant activity and unique benefits not observed with tocopherols. (See our white paper, "The Science Behind Vitamin

E Tocotrienols"and Annatto-E™ tech sheet for an extensive discussion of tocotrienol research and the shortcomings of tocopherols.) Tocotrienols are not easily found in common diets and their assimilation is impaired by concurrent consumption of tocopherols. Thus, tocopherols are not included in DFH CMs; they can be easily obtained through the consumption of nuts, seeds, avocado, various vegetable oils and many animal foods. This also creates the opportunity to supplement at the same time with additional higher doses of tocotrienols from Annatto-E™ 150/300 or Annatto-E™ Synergy, since their deposition in tissues would be impaired by a tocopherol-containing formula.

Vitamin K: provided as two naturally occurring forms—vitamins K1 and K2 (as MK-4 and MenaQ7® Full Spectrum as MK-6, MK-7, MK-9). The RDA for vitamin K1 was derived solely based on optimizing blood clotting, but new research shows that higher levels are required to support the roles of vitamins K1 and K2 in bone metabolism, arterial health and more. The precise forms and specific levels of K2 characteristic of a Paleo diet are not known for certain but MK-4 was likely an important component since it is the main form stored in animal foods and in the human body. Consider adding Tri-K™ for postmenopausal women and older men and women with arterial stiffness/calcification, who may need higher levels of vitamins K1 and K2. For a review of vitamin K forms, metabolism, and applications, see the DFH Tri-K™ tech sheet and the "Vitamin K forms" chapter in the 2012 Textbook of Natural Medicine.[19] (A revised and updated edition is pending for 2020).

Vitamins B1 through B6; folate: Levels in these formulas were set to make up for the difference between the highest level of intake in Paleo-style diets and the lowest levels of intake observed in the US. This aims to ensure an adequate intake of these vitamins based on evolutionary principles while also meeting the respective RDAs.

Folate: provided as Quatrefolic®, a glucosamine salt 5-MTHF form of folate shown to dissociate easily before absorption and raise plasma folate levels.[24] This form of 5-MTHF is likely more bioavailable than naturally occurring folates because they are covalently bonded to polyglutamate chains.[24] Folic acid is no longer considered an adequate source of folate for the following reasons: (a) genetic polymorphisms of folate metabolism are common and are responsible for a 35-70% reduced conversion of folic acid to the biological active form, 5-MTHF;[24,25] (b) synthetic folic acid (derived from fortified foods and/or supplements) may increase the risk of various cancers, reduce natural killer (NK) cell activity, and may have other detrimental effects;[25,26] (c) human physiology is adapted to natural folates. Folic acid is not a naturally occurring molecule and has a distinct pathway of cell entry and different metabolic transformations compared to natural folates. These differences may be responsible for the detrimental effects associated with folic acid.[25,27]

Vitamin B6: provided in the naturally occurring phosphorylated form, pyridoxal-5-phosphate.

Vitamin B12: provided in the naturally occurring methylcobalamin form. Supplemental methylcobalamin is converted to cobalamin inside cells, and further into the two active forms of B12: methylcobalamin and adenosyl-cobalamin. (Note: it is a common misconception that the methyl group cleaved from supplemental methylcobalamin is utilized in methylation pathways. This is not the case. Methyl groups provided by methylfolate, choline, and betaine are used for this purpose but those derived from methylcobalamin are not. See Tricobalamin™ or Trifolamin™ tech sheets for details).

Niacin: included in two forms, as niacin and niacinamide. Both occur naturally in foods and are precursors to nicotinamide adenine dinucleotide (NAD) but take slightly different physiological pathways.[49] Optimizing NAD levels has been emphasized by recent research to counteract age-related decline in mitochondrial function.[50]

Vitamin C: provided as 600 mg ascorbic acid, a much higher level than in most multivitamins. This is based on the average consumption of vitamin C in the US—just 82 mg/day—likely due to diets low in fresh fruits and vegetables. This is well below the upper level found in Paleo-style diets, estimated at 680 mg. Vitamin C is an antioxidant and also an essential cofactor involved in optimal immune response, collagen biosynthesis, catecholamine metabolism, and dietary iron absorption.[23] In turn, poor collagen renewal results in impaired integrity of the skin, mucous membranes, blood vessels, and bone.[23] The RDA for vitamin C (75 mg/90 mg for females/males) was derived to prevent only the extreme deficiency that results in scurvy; it does not provide for optimal health.[23]

Vitamin A: The vitamin A in this formula is represented by a natural carotenoid mix from palm oil with the remainder as pre-formed vitamin A, retinyl palmitate. The majority of vitamin A sources in the Paleolithic diet are believed to have been derived from plant-sourced carotenoids rather than pre-formed vitamin A.[6] Ideally, most vitamin A should be derived from a diet high in vegetables and fruits, which provide carotenoids that convert into the active form of vitamin A in humans.

Vitamin D: The amount included in these formulations is intended to be augmented by endogenously synthesized vitamin D from sun exposure and/or supplementation using one of Designs for Health's vitamin D+K formulas, as guided by optimizing blood levels of 25(OH)D3 in the upper zone of the reference range.

Calcium (Ca): The AI (adequate intake) for Ca is 1000 mg for males age 19–70 yrs and females age 19–50 yrs, while for males older than 70 and females older than 50 it is 1200 mg.[1] The typical Ca content of Paleo-style diets has been estimated between 634–798 mg/day, thus significantly lower than the RDA for Ca. It is debatable whether the RDA for Ca or the average Ca levels in Paleo-style diets are more likely to support bone health or other conditions affected by Ca status. Average intake of Ca in the US has been estimated at 859 mg/day[39], which exceeds Paleo-style diet levels but are lower than the RDA for Ca. This formula provides 100 mg of calcium from a highly bioavailable chelated form, which contributes to optimization of total Ca intake on an individual basis. Various additional DFH formulas that provide Ca may be used as needed.

Magnesium (Mg): The RDA for magnesium is 420 mg/320 mg for males/females, respectively.[1] The Mg content of Paleo-style diets was estimated to be between 421–645 mg/day, thus higher than the current RDA. The average intake in the US has been estimated at just 281 mg.[39] These formulas provides 200 mg of magnesium, which may increase total intakes to a level comparable to the Mg content of Paleo-style diets, while also meeting the RDA. Total intake may be optimized on an individual basis using various additional DFH Mg formulas as needed.

Zinc (Zn): Zn is involved in a multitude of basic biochemical functions. Zinc deficiency is known to have adverse clinical impacts on the epidermal, gastrointestinal, immune, skeletal, reproductive and central nervous systems.[29] The RDA for Zn is 11 mg/8 mg for males/females[1], while the typical content of Paleo-style diets has been estimated between 11–32 mg. This formula provides 15 mg of Zn. When added to the average US intake of 12.9 mg/day,[39] this brings the total intake to the upper range of Paleo-style diets, yet safely well below the UL (40 mg).[1]

Chromium (Cr): a trace mineral involved in maintaining healthy blood sugar levels and proper carbohydrate and fat metabolism.[30,31] "Insufficient dietary intake of Cr leads to signs and symptoms that are similar to those observed for diabetes and cardiovascular diseases. Supplemental Cr given to people with impaired glucose tolerance or diabetes leads to improved blood glucose, insulin, and lipid variables."[30] The 200 mcg level of Cr in this formula was set to provide a therapeutic amount, above the typical Cr content of Paleo-style diets and the RDA for Cr.

Iodine: an essential element needed for thyroid hormone synthesis and conversion, in synergy with adequate levels of selenium and vitamin A.[32,33] The level of iodine set in this formula was chosen to meet the RDA and is higher than the typical iodine content of Paleo-style diets unless they included liberal intake of seafood.

Selenium (Se): Offered as a highly bioavailable chelate. "Selenoproteins, in which selenium is present as selenocysteine, present an important role in many body functions, such as antioxidant defense (as part of glutathione peroxidase) and the formation of thyroid hormones. Some selenoproteins metabolites play a role in cancer prevention. In the immune system, Se stimulates antibody formation and activity of helper T cells, cytotoxic T cells and Natural Killer (NK) cells."[51] Se has the capacity to bind mercury and prevent its toxicy.[52] The level of Se set in this formula is in the upper range of typical Paleo-style diets while still below the UL for Se.

Boron: There is no RDA for boron, and its average intake in the US has been estimated between 0.4–2.4 mg.[39] It is not clear what the optimal boron intake is, but supplementing with 2 mg boron may result in intakes comparable with the upper range of boron in Paleo-style diets, estimated between 1–2.5 mg. This mineral appears to be important for various aspects of physiology. Research in humans and higher order animals supports the concept that boron is beneficial in bone health, brain function and immune response.[34,35]

Biotin: There is no RDA for biotin but it is involved in several critical metabolic pathways.[42] These functions include "gluconeogenesis, fatty acid synthesis, and amino acid catabolism. Biotin might regulate chromatin structures, gene expression, and DNA repair. Animal and human data suggest that poor biotin status adversely affects plasma lipid levels and can cause alopecia or erythematous dermatitis."[36] Average intakes of biotin seem to overlap with the levels found in typical Paleo-style diets and are above the RDA for biotin. The 30 mcg of biotin provided by this formula is meant to prevent deficiency regardless of individual intakes. There is no UL set for biotin.

Quercetin and Rutin: Quercetin and rutin are flavonoid polyphenols found in various food sources such as fruits, vegetables, nuts, wine and seeds. Rutin is composed of quercetin plus a disaccharide of rutinose, which is detached during absorption, thus providing quercetin. "Rutin, a polyphenolic bioflavonoid has shown a wide range of applications due to its significant antioxidant properties. Conventionally, it is used as antimicrobial, antifungal, and antiallergic agent. However, current research has shown its multi spectrum benefits for various chronic diseases such as cancer, diabetes, hypertension and hypercholesterolemia."[48] "In vitro and animal models have shown that quercetin, a polyphenol derived from plants, has a wide range of biological actions including anti-carcinogenic, anti-inflammatory and antiviral activities; as well as attenuating lipid peroxidation, platelet aggregation and capillary permeability."[46,47]

Hesperidin: Preclinical studies and clinical trials have demonstrated that hesperidin may help improve blood lipids, support healthy neurological function, and improve insulin sensitivity.[54]

Lecithin: a source of choline, which is a building block for acetylcholine, cell membranes, and mitochondrial phospholipids. It is also a methyl donor that participates in methylation reactions after conversion to betaine.[53] Lecithin also serves as an emulsifier to aid in the absorption of the accompanying ingredients in DFH CMs. The 100 mg of lecithin in this formula contributes a highly bioavailable form of choline to bridge the gap between average intakes in US (278–402 mg)[57] and the RDA for choline (425 mg/550 mg for females and males, respectively). Additional choline may be supplemented from DFH's phosphatidylcholine powder or softgels, or DFH formulas containing glycerophosphocholine (GPC).

Trimethylglycine: also known as betaine, is widely distributed in animals, plants, and microorganisms.[45] Dietary betaine intake in the US has been estimated to be between 0.5–2 g/day.[43] Betaine is utilized in the kidney primarily as an osmoprotectant, whereas in the liver it functions as a methyl group donor involved in the metabolism of homocysteine as well as in phosphatidylcholine synthesis, which in turn supports lipid metabolism.[44] "Accumulating evidence has shown that betaine has anti-inflammatory functions in numerous diseases. Mechanistically, betaine protects sulfur amino acid metabolism against oxidative stress, inhibits nuclear factor-kB activity and NLRP3 inflammasome activation, regulates energy metabolism, and mitigates endoplasmic reticulum stress and apoptosis. Consequently, betaine has beneficial actions in several human diseases, such as obesity, diabetes, cancer, and Alzheimer's disease."[45] (For targeted doses of betaine, consider supplementing with Homocysteine Supreme™.)

Copper (Cu): included in DFH Complete Multi™ with Copper and in DFH Complete Multi™ with Copper and Iron. Cu is a cofactor for several enzymes involved in energy production, iron metabolism, neuropeptide activation, connective tissue synthesis, neurotransmitter synthesis, angiogenesis, regulation of gene expression, pigmentation, immune system functioning, and antioxidant defense (through Cu-containing superoxide dismutase).[56] Average intake of Cu in the US is 1.1 mg,[39] which is above the RDA (0.9 mg). However, the typical content of Paleo-style diets was estimated between 2.1–3 mg. Thus, the 2 mg Cu provided by DFH CMs can bring the total intake of Cu to levels comparable to the upper range of Paleo-style diets.

Iron (Fe): included in DFH Complete Multi™ with Copper and Iron, as a chelate from Ferrochel® (ferrous bisglycinate chelate). This form was chosen due to its high bioavailability. For example, one study found that supplementation with ferrous bisglycinate chelate resulted in double the absorption compared to ferrous sulfate. This form of Fe partially prevents the inhibitory effect of phytates, has low interactions with food,[55] and has better tolerability, as it will not result in the constipation induced by other common forms of Fe. Average intake of Fe by women of reproductive age in the US is 14 mg/day, in a range of 7.3–22.3 mg/day.[39] The value of 8 mg of iron chosen for this formula helps a large portion of the population meet the RDA for Fe (18 mg). It also ensures that the upper range of iron intake plus the amount in DFH CMs adds up to a total well below the UL for Fe (45 mg). Well-balanced diets provide iron in the range of 17–22 mg/day, so those following these diets may not need to supplement with Fe.

Recommended Use: Take 4 capsules per day with meals (can be in divided doses), or as directed by your health care practitioner.

- **DFH Complete Multi™ with Copper and Iron:** for those who have inadequate intake or absorption of iron and copper and/or experience periodic bleeding (such as menstruating women or patients with Crohn's disease)
- **DFH Complete Multi™ with Copper:** for those with adequate intake and absorption of iron but who may be deficient in copper
- **DFH Complete Multi™ (Copper and Iron-Free):** for postmenopausal females and for men with adequate intakes and absorption of iron and copper

Complementary Formulas: For individualizing supplementation, consider adding these other Designs for Health formulas:

- OsteoForce™ or any calcium and/or magnesium products as indicated based on diet, sex, age, and health status
- PaleoGreens®, PaleoReds®, EssentiaGreens™ or other antioxidant formulas based on diet and oxidative stress status
- For additional B12 and/or folate: Tricobalamin™, Trifolamin™

DFH COMPLETE MULTI™

Supplement Facts

Serving Size 4 capsules
Servings Per Container 30

Amount Per Serving		% Daily Value
Vitamin A (as Mixed Carotenoids and Palmitate)	2250 mcg RAE	250%
Vitamin C (as Ascorbic Acid)	600 mg	667%
Vitamin D (as Cholecalciferol)	25 mcg (1000 IU)	125%
Vitamin K (as K1 Phytonadione, Vitamin K2 Menaquinone-4 and MenaQ7® Full Spectrum MK-6, MK-7, MK-9)	550 mcg	458%
Thiamin (Vitamin B-1)(as Thiamine HCl)	2.3 mg	192%
Riboflavin (Vitamin B-2) (as Riboflavin-5-Phosphate)	2.8 mg	215%
Niacin (as Niacinamide and Niacin)	50 mg NE	313%
Vitamin B-6 (as Pyridoxal-5-Phosphate)	5.2 mg	306%
Folate (as Quatrefolic® [6S]-5-methyltetrahydrofolate, glucosamine salt 800 mcg)	680 mcg DFE	170%
Vitamin B-12 (as Methylcobalamin)	500 mcg	20,833%
Biotin (as d-Biotin)	30 mcg	100%
Pantothenic Acid (as d-Calcium Pantothenate)	12 mg	240%
Calcium (as TRAACS® Calcium Bisglycinate Chelate)	100 mg	8%

Amount Per Serving		% Daily Value
Iodine (as Potassium Iodide)	150 mcg	100%
Magnesium (as Di-Magnesium Malate)	200 mg	48%
Zinc (as Zinc Bisglycinate Chelate)	15 mg	136%
Selenium (as Selenium Glycinate Complex)	200 mcg	364%
Manganese (as TRAACS® Manganese Bisglycinate Chelate)	1 mg	43%
Chromium (as TRAACS® Chromium Nicotinate Bisglycinate Chelate)	200 mcg	571%
Molybdenum (as TRAACS® Molybdenum Glycinate Chelate)	100 mcg	222%
Trimethylglycine (TMG)	200 mg	*
Quercetin	25 mg	*
Rutin	25 mg	*
Vitamin E Isomers (as DeltaGold® delta and gamma tocotrienols)	15 mg	*
Hesperidin (from Citrus Flavonoids)	10 mg	*
Boron (as Bororganic Glycine)	2 mg	*

*Daily Value not established.

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

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Vitamin A (as Mixed Carotenoids and Palmitate)	2250 mcg RAE	250%
Vitamin C (as Ascorbic Acid)	600 mg	667%
Vitamin D (as Cholecalciferol)	25 mcg (1000 IU)	125%
Vitamin K (as K1 Phytonadione, Vitamin K2 Menaquinone-4 and MenaQ7® Full Spectrum MK-6, MK-7, MK-9)	550 mcg	458%
Thiamin (Vitamin B-1)(as Thiamine HCl)	2.3 mg	192%
Riboflavin (Vitamin B-2)(as Riboflavin-5-Phosphate)	2.8 mg	215%
Niacin (as Niacinamide and Niacin)	50 mg NE	313%
Vitamin B-6 (as Pyridoxal-5-Phosphate)	5.2 mg	306%
Folate (as Quatrefolic® [6S]-5-methyltetrahydrofolate, glucosamine salt 800 mcg)	680 mcg DFE	170%
Vitamin B-12 (as Methylcobalamin)	500 mcg	20,833%
Biotin (as d-Biotin)	30 mcg	100%
Pantothenic Acid (as d-Calcium Pantothenate)	12 mg	240%
Calcium (as TRAACS® Calcium Bisglycinate Chelate)	100 mg	8%
Magnesium (as Di-Magnesium Malate)	200 mg	48%

Amount Per Serving		% Daily Value
Zinc (as Zinc Bisglycinate Chelate)	15 mg	136%
Selenium (as Selenium Glycinate Complex)	200 mcg	364%
Copper (as TRAACS® Copper Bisglycinate Chelate)	2 mg	222%
Manganese (as TRAACS® Manganese Bisglycinate Chelate)	1 mg	43%
Chromium (as TRAACS® Chromium Nicotinate Bisglycinate Chelate)	200 mcg	571%
Molybdenum (as TRAACS® Molybdenum Glycinate Chelate)	100 mcg	222%
Trimethylglycine (TMG)	200 mg	*
Quercetin	25 mg	*
Rutin	25 mg	*
Vitamin E Isomers (as DeltaGold® delta and gamma tocotrienols)	15 mg	*
Hesperidin (from Citrus Bioflavonoids)	10 mg	*
Boron (as Bororganic Glycine)	2 mg	*

*Daily Value not established.

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

DFH COMPLETE MULTI™ WITH COPPER & IRON

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Vitamin D (as Cholecalciferol)	25 mcg (1000 IU)	125%
Vitamin K (as K1 Phytonadione, Vitamin K2 Menaquinone-4 and MenaQ7® Full Spectrum MK-6, MK-7, MK-9)	550 mcg	458%
Thiamin (Vitamin B-1)(as Thiamine HCl)	2.3 mg	192%
Riboflavin (Vitamin B-2)(as Riboflavin-5-Phosphate)	2.8 mg	215%
Niacin (as Niacinamide and Niacin)	50 mg NE	313%
Vitamin B-6 (as Pyridoxal-5-Phosphate)	5.2 mg	306%
Folate (as Quatrefolic® [6S]-5-methyltetrahydrofolate, glucosamine salt 800 mcg)	680 mcg DFE	170%
Vitamin B-12 (as Methylcobalamin)	500 mcg	20,833%
Biotin (as d-Biotin)	30 mcg	100%
Pantothenic Acid (as d-Calcium Pantothenate)	12 mg	240%
Calcium (as TRAACS® Calcium Bisglycinate Chelate)	100 mg	8%
Iron (as Ferrochel® Ferrous Bisglycinate Chelate)	8 mg	44%

Amount Per Serving		% Daily Value
Iodine (as Potassium Iodide)	150 mcg	100%
Magnesium (as Di-Magnesium Malate)	200 mg	48%
Zinc (as Zinc Bisglycinate Chelate)	15 mg	136%
Selenium (as Selenium Glycinate Complex)	200 mcg	364%
Copper (as TRAACS® Copper Bisglycinate Chelate)	2 mg	222%
Manganese (as TRAACS® Manganese Bisglycinate Chelate)	1 mg	43%
Chromium (as TRAACS® Chromium Nicotinate Bisglycinate Chelate)	200 mcg	571%
Molybdenum (as TRAACS® Molybdenum Glycinate Chelate)	100 mcg	222%
Trimethylglycine (TMG)	200 mg	*
Quercetin	25 mg	*
Rutin	25 mg	*
Vitamin E Isomers (as DeltaGold® delta and gamma tocotrienols)	15 mg	*
Hesperidin (from Citrus Bioflavonoids)	10 mg	*
Boron (as Bororganic Glycine)	2 mg	*

*Daily Value not established.

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

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