

Practitioner Dietary Supplement Reference Guide

Introduction to The Use and Formulations of Health Supplements

The goal of dietary supplements in this category is to complement typical food diets to help humans create, develop, and maintain health by supplying essential nutrition such as vitamins and essential minerals (VM) and other functional bio-actives which are unselected or unattainable from diet alone to achieve nutrition levels associated with good health at all life phases offering support towards lifelong independence.^{1,2,3,4,5,6,7,8,9} For various avoidable and unavoidable reasons, as thoroughly described in the article “Vitamin and Mineral Supplementation in Human Health – A Case for Public Policy”, which serves as a reference (and will be noted) throughout the entire PDSRG Health Section¹⁰, when compared to recommended dietary allowances (RDA) and Adequate Intakes (AI) and other health guidelines, virtually all people fall short of many nutrients and other important bio-actives when food alone, including fortified foods are the delivery.^{1,9,11,12,13,14} Calibrated supplementation from the beginning of life until the end, such as correcting VM levels acquired from foods to reach life-stage Dietary Reference Intakes (DRI) including RDA/AI as described throughout this Health section, may contribute to better health, development and performance outcomes at all life-stages and compound in each decade of life starting with prenatal vitamin and mineral supplementation and continuing through adulthood.^{3,15,16,17,18,19,20,21,22,23,24,25,26,27} All else equal, this compounding improved health or vigor, for many, may be a contributor to a better evolving lifestyle based on an improved physical and mental structure and function potential compared to the same non-supplemented entity.^{28,29,30,31,32}

Vitamins and Essential Minerals

*Of all the human essential nutrition, VM are the most difficult to attain in proper amounts (RDAs), leaving us vulnerable at any life phase to creating a weaker than otherwise VM-dependent human structure, thus opening the door to much of what's wrong with today's human health and subsequent lifestyles. These recommended amounts were not known or available during periods of significantly shorter lifespans but are now known and necessary to support our current lifespan's potential health. **Therefore, our position is that lifelong complete vitamin and mineral supplementation (LCVMS), starting with already medically endorsed prenatal VMS, should remain a primary health risk reduction aid.***

Because of the necessity of continual nutrient synergy in creating and maintaining life/health,^{33,34} vitamin and mineral supplementation would start at the beginning of life for all humans through the female's lifelong complete multivitamin and mineral supplementation (LCVMS) of ~19-22 vitamins and minerals (CVMS) that is delivered in a singular daily formula designed to be complemented*, if necessary (i.e. all vitamins and mineral needs beyond food's contributions are unable to fit in an acceptable pill size), to correct food level VM delivery in achieving RDA/AI levels but remain, when combined, below the tolerable upper limits (UL). This LCVMS could take the form of a prenatal multivitamin and mineral (MVM) when conception is planned although the differences may be insignificant beyond temporary special needs such as increased iron or folate (both also in CVMS). Additionally, the activity of LCVMS helps solves the potential problems of late discovery of pregnancy where optimum first trimester fetal development is often dependent on maternal supplementation and there can be no later supplementation “make up” once this window closes.^{15,16,17,18,19,20,21,35} From the article titled “Vitamin and Mineral Supplementation in Human Health – A Case for Public Policy,”¹⁰ the reader will discover the reasoning for our recommendation that every human from the beginning of life until the end should, at a minimum, partake in LCVMS complementing their food VM levels to achieve the levels established within the Dietary Guidelines for Americans (DGA).^{1,9,23} Food including fortified foods are clearly not working to achieve established VM guidelines (e.g. RDAs, AIs) designated for good health.^{1,9,11,12,13,14,23}

*Calcium and potassium present the only caveat to a single CVMS because if they are needed, the amounts generally would not fit in an acceptable pill size along with the other VMs. While impossible to quantify/validate all the individual VMs content of your foods (unless testing each food immediately before consumption), calcium and potassium food content are relatively easy to discover particularly since the new labeling laws. Therefore, the standard adult formula would omit these two minerals allowing persons to add separately only if needed, which a quick glance at one's diet can determine.

Panel of International Experts in Nutritional Science & Health Care Consensus Report

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In line with our position and addressing the use of multivitamin and mineral supplementation (MVMS) in supporting human health, a panel of 14 international experts in nutritional science and health care determined and published their consensus panel report regarding multivitamin mineral supplements. The following statements are found in the peer reviewed document titled, “The Use of Multivitamin/Multimineral Supplements: A Modified Delphi Consensus Panel Report.”²³

“Multivitamin and mineral supplements (MVMS) can broadly improve micronutrient intakes when they contain at least the micronutrients that are consumed insufficiently or have limited bioavailability within a specified population. MVMS formulations may also be individualized according to age, sex, life cycle, and/or other selected characteristics. There are specific biological processes and health outcomes associated with deficient, inadequate, and adequate micronutrient levels. Adequate intake is necessary for normal biological functioning required for good health. Meeting daily intakes established by dietary reference values should be an explicit public health goal for individuals and populations. Use of MVMS is one approach to ensure that adequate micronutrient needs are met in support of biological functions necessary to maintain health.”²³ Taking the statement as it actually reads and apply it to current micronutrient intakes, the general population would be using MVMS at or below the RDAs at all life-stages to complement food intake.^{1,9,11,12,13,14,15,23} Subgroups may need specific formulas above RDAs.³⁶

Policy Change from “Vitamin and Mineral Supplementation in Human Health – A Case for Public Policy”¹⁰

Telling people that they can get all the VMs they need from food alone if they eat properly is a fool’s errand, particularly in western societies and validated by the fact it hasn’t worked. Further, no human being could accidentally hit this ~RDA daily intake without supplementation and especially as it relates to unknown food levels of nutrients (including variances between same foods from different regions) and realistic western lifestyles including related environmental trappings. Telling people to eat correctly and you won’t need low-dose CVMS and let them go, is akin to telling a patient with high cholesterol that if they diet and exercise, they don’t need a cholesterol lowering drug (e.g. statin). Should we let them walk out on that note – or prescribe/recommend the drug? Therefore, the better health and medical conversation would be: “It’s difficult at best to ensure that your foods supply all the vitamins and minerals that we know you need for best long-term health in recommended daily amounts throughout your entire life. Therefore, to ensure current recommended levels of vitamins and minerals we recommend everyone to use an inexpensive low dose complete vitamin and mineral supplement (CVMS) daily, while you continue striving to eat ideally since there are many important food components that work with the vitamins and minerals to create and maintain health”.

Moreover, no matter a person’s diet and physical activities from very good to very poor, lifelong CVMS, compared to no supplementation, would contribute better health and performance outcomes at all life-stages with the greatest impact on people with the poorest vitamin and essential mineral intakes.

Summary

We believe based on the seamless sequenced logic found in the article, “Vitamin and Mineral Supplementation in Human Health – A Case for Public Policy”¹⁰, that a lifelong properly supplemented (inexpensively and easily delivered) human would be structurally superior to the same non-supplemented entity, offering better health at each stage of life with greater resistance to natural aging – i.e. healthier aging. Further, the saying that “one good turn deserves another” is especially true in fitness. Therefore, the right conversation (see sample policy statement above) will not lead to using LCVMS as an excuse to eat poorly or become lazy (it doesn’t now, in fact the opposite is true), but to the contrary daily use may inspire, through nutrition supported enhanced energy levels and structural integrity and each life phase, ever evolving healthier eating and movement behaviors to ultimately improve the way humans age and allow greater lifelong independence.

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dotFIT Vitamin and Mineral Formulas data found in their respective sections

- [Introduction to Lifelong Complete Vitamin and Mineral Supplementation \(LCVMS\)](#)
- [dotFIT Multiple Vitamin & Mineral Formulas Specialty Design Criteria](#)
- [Multivitamin & Mineral Formulas and ActiveMV](#)
- [Women'sMV](#)
- [Over50MV](#)
- [VeganMV](#)
- [KidsMV](#)
- [SuperCalcium+](#)
- [Vitamin D3](#)

Other Health Supporting Supplements in This Section

Beyond vitamins and minerals there are other important bio-actives, and combinations thereof, that contribute to overall health including sufficient exercise and daily living recovery, such as carotenoids, flavones, amino acids or like structures, etc., that the body often requires more than a typical or acceptable diet can offer because of natural age related resistance to the effects of nutrition^{37,38,39,40,41,42,43,44,45,46,47} and/or difficulties in acquisition whether from age,^{24,25,48,49,50,51,52,53} diet choice or restrictions, and/or calorie allotment for a desired weight or body composition.^{54,55,56,57,58,59,60,61,62,63,64,65,66,67,68,69,70,71,72,73,74,75,76,77,78,79,80}

The following dietary supplements in this section are strategically formulated with compounds, already found in the body but in limited amounts due to the aforementioned obstacles, to help achieve levels associated with improved health, recovery, physical and cognitive functional performance and longevity throughout life-stages compared to no supplementation. Additionally, all products assume the use of a daily dotFIT multivitamin and mineral (MVM) so that regardless of the additional recommended product(s), the users will remain in the known safe and recommended ranges of safety and efficacy when all nutrients and bio-actives are combined including typical diets. Moreover, any product used as a standalone will function as claimed or used synergistically with other recommended dotFIT products to potentially further enhance desired health and fitness outcomes, such as combining the dotFIT MVM with SuperCalcium+ and the SuperOmega-3 when the diet is insufficient in the recommended amounts of calcium (RDA) or Omega-3 fish oils (World Health Organization [WHO]).

All three levels of *the dotFIT Health and Longevity Supplement Program* found in the Appendix, are perfect examples of nutrient/bio-active synergy.

Health and Functional Longevity Dietary Supplements Found in Their Respective Sections:

- [SuperOmega-3 Fish Oils](#)
- [UltraProbiotic](#)
- [SuperiorAntioxidant](#)
- [JointFlexPlus](#)
- [AdvancedBrainHealth](#)
- [DigestiveEnzymes](#)

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