



**2010 Dietary Guidelines Advisory Committee Report
Comments from the Council for Responsible Nutrition
July 2010**

The report of the 2010 Dietary Guidelines Advisory Committee (DGAC) takes a dismissive view of most nutrient shortfalls and adopts a generally negative view of dietary supplements. The 2010 Report echoes the same general advice on food choices that has been offered by six previous DGACs, even while recognizing that this advice has had "little or no demonstrable impact" over the years. Emphasizing that the American population is drowning in a sea of calorie-rich, nutrient-poor foods, the 2010 Report calls for development of a long-term comprehensive strategic plan for a major overhaul of U.S. food policy and the food supply. The overhaul is much needed, but, in the meantime, consumers could use some practical guidance on avoiding nutrient shortfalls even while they work on improving their personal food habits.

The DGAC fails to recognize the contribution that can be made by dietary supplements, in terms of filling nutrient gaps in usual diets. The section of the report on Nutrient Adequacy recognizes a large number of nutrient shortfalls in the population, but concludes that these are not of public health concern unless the shortfalls are accompanied by widespread low blood levels of the nutrient or by signs of deficiency. Waiting until deficiencies are evident before recommending nutritional support is not in the best interest of the millions of growing children, pregnant women, developing teenagers, busy adults, and aging seniors of this nation.

In these comments, the Council for Responsible Nutrition (CRN)¹ responds to specific statements in the DGAC 2010 Report and makes constructive suggestions regarding the

¹ The Council for Responsible Nutrition (CRN), founded in 1973 and based in Washington, D.C., is the leading trade association representing dietary supplement manufacturers and ingredient suppliers. CRN companies produce a large portion of the dietary supplements marketed in the United States and globally. Our member companies manufacture popular national brands as well as the store brands marketed by major supermarkets, drug store and discount chains. These products also include those marketed through natural food stores and mainstream direct selling companies. In addition to complying with a host of federal and state regulations governing dietary supplements in the areas of manufacturing, marketing,

recommendations on dietary supplements that should appear in the text of the actual 2010 *Dietary Guidelines for Americans* to be prepared by the USDA and HHS. The final *Guidelines* should provide American consumers with a more balanced perspective on the scientific evidence relating to the benefits of the appropriate and rational use of dietary supplements.

CRN agrees with the 2010 DGAC Report that people should strive to obtain their nutrients by maintaining a varied diet of nutrient-dense foods while monitoring their caloric intake. This is often referred to as a “food first” approach to nutrition. However, survey research overwhelmingly indicates for most Americans, this doesn’t happen, and yet the 2010 Report rejects any benefit from supplementing the diet with a calcium or folic acid supplement, or even a daily multivitamin. The Report goes beyond a “food first” approach and adopts a “food only” point of view. The clear message is that it is better to be inadequate than to use a multivitamin to fill in the gaps that occur from a less than perfect diet. Yet none of the research relied upon by the committee supports that conclusion. Accordingly, CRN suggests a more constructive, more healthful and more practical message to American consumers.

Achieving adequate intake of essential nutrients is by definition beneficial

The current text does not recognize that achieving adequate intake of essential nutrients is by definition beneficial. The 2010 Report documents the fact that the majority of Americans fall short not just in one essential nutrient, but in many; it nevertheless asserts that a daily multivitamin supplement “does not offer health benefits to healthy Americans.” (Report at A-5) This statement is false and should not appear in the text of the final 2010 *Dietary Guidelines for Americans*.

If the RDAs and AIs established by the Institute of Medicine are to be taken seriously -- and we believe they are intended to be taken seriously -- then individual shortfalls by definition represent a failure to achieve the recommended goals for personal nutrient intake. A daily multivitamin with minerals can compensate for many of those shortfalls at low cost and with virtually no risk of adverse effects.

Other experts have recognized the benefit of a multivitamin for the purpose of enhancing the adequacy of vitamin and mineral intake. For example, a 2009 position statement by the

quality control and safety, our 70+ manufacturer and supplier members also agree to adhere to additional voluntary guidelines as well as CRN’s Code of Ethics. Learn more about us at www.crnusa.org.

American Dietetic Association recognizes that multivitamin and mineral supplements "can be an effective way to increase nutrient intakes to meet recommended levels of multiple nutrients..."²

Dr. Walter Willett and Dr. Meir Stampfer, two prominent physician-researchers at Harvard Medical School and the Harvard School of Public Health, have concluded that a daily multivitamin makes sense for most adults,³ and they reiterated this advice in a joint letter with Drs. Bruce Ames and Joyce McCann following the 2006 NIH conference on multivitamins.⁴

While multivitamins are beneficial in filling nutrient gaps for every population group, they have particular importance for some at-risk groups. Multivitamins with folic acid have been stressed to women of childbearing age for almost two decades by the Centers for Disease Control and Prevention⁵ and other organizations seeking to apply knowledge gained from scientific research to the challenge of reducing the incidence of neural tube birth defects and other defects in babies. That advice was reiterated in 2009 by the U.S. Preventive Services Task Force.⁶ Once they become pregnant, women are routinely advised to take a prenatal multivitamin -- advice that is conveyed by almost all obstetricians and followed with a high level of compliance by the vast majority of expectant mothers.⁷ Older citizens are known to be even more likely than younger ones to fall short in multiple nutrients, and multivitamins can certainly offer health benefits to these Americans.⁸

Motivation for using a multivitamin

The 2010 Report asserts that people use multivitamins as a replacement for better food choices. The report provides no evidence to support this assumption and we are aware of no evidence that people who use dietary supplements believe the products will substitute for a good

² Marra, M. V. and A. P. Boyar (2009). "Position of the American Dietetic Association: nutrient supplementation." *J Am Diet Assoc* **109**(12): 2073-2085.

³ Willett, W. C. and M. J. Stampfer (2001). "Clinical practice. What vitamins should I be taking, doctor?" *N Engl J Med* **345**(25): 1819-1824.

⁴ Ames, B. N., J. C. McCann, et al. (2007). "Evidence-based decision making on micronutrients and chronic disease: long-term randomized controlled trials are not enough." *Am J Clin Nutr* **86**: 522-525.

⁵ CDC. (2009). "Facts About Folic Acid." from www.cdc.gov/ncbddd/folicacid/.

⁶ U.S. Preventive Services Task Force (2009). "Folic acid for the prevention of neural tube defects: U.S. Preventive Services Task Force recommendation statement." *Ann Intern Med* **150**(9): 626-631.

⁷ Picciano, M. F. and M. K. McGuire (2009). "Use of dietary supplements by pregnant and lactating women in North America." *Am J Clin Nutr* **89**(2): 663S-667S.

⁸ Marshall, T. A., P. J. Stumbo, et al. (2001). "Inadequate nutrient intakes are common and are associated with low diet variety in rural, community-dwelling elderly." *J Nutr* **131**(8): 2192-2196.

diet. Indeed, research conducted by CRN⁹ and others indicates that most people who use dietary supplements also seek to improve their diets and their lifestyles in other ways--and do so at rates higher than non-supplement users-- illustrating that supplement use is viewed as one component of a larger quest for wellness.¹⁰

Convenience and cost of dietary supplements

The DGAC Report recognizes that expense and accessibility are factors that sometimes stand in the way of achieving dietary targets. While dietary supplements cannot compensate for a poor diet, they can in fact fill specific nutrient gaps at a low cost per day and without adding significant calories. A person who is currently consuming little or no milk and who wants to obtain recommended amounts of calcium and vitamin D would need to add 3 cups of low fat milk (or the equivalent) to the diet and remove other foods to make room for these calories. It would not be unreasonable for that person to choose instead to add a supplement of calcium and vitamin D at a lower cost and without the added calorie burden. A woman of childbearing age who is aware that she should be getting 400 mcg of folic acid per day in addition to her usual dietary folate intake might choose to eat a bowl of fully fortified cereal with milk every day *and* to make room in her diet to offset the added calories -- or she might reasonably decide to add a multivitamin with folic acid at a cost of less than a dime a day with no added calorie burden. A low-income mother wishing to provide her children with some extra vitamins might reasonably decide to give them a multivitamin if she cannot afford the luxuries recommended by the DGAC as good sources of vitamins C and E, such as guava, frozen peaches, and sunflower seeds. These are personal decisions that include considerations of cost and convenience as well as nutritional impact.

All shortfall nutrients are of public health concern

According to the DGAC, low nutrient intakes are of public health significance only if they result in deficiency. It is surprising that the DGAC would consider the prevalence of 5% or 7% deficiency or inadequacy in the U.S. population to be acceptable. The objective of the RDA

⁹ CRN. (2009). "CRN Consumer Survey on Dietary Supplements." Retrieved February 1, 2010, from www.crnusa.org/prpdfs/CRNPR2009CRNConsumerSurvey_UsageConfidence.pdf.

¹⁰ Radimer, K., B. Bindewald, et al. (2004). "Dietary supplement use by US adults: data from the National Health and Nutrition Examination Survey, 1999-2000." *Am J Epidemiol* **160**(4): 339-349.

is to achieve adequacy (not merely to prevent deficiency) for 97 to 98% of the population. Shortfalls will cause the population to fall below this level of adequacy, so shortfalls, are by definition, significant. The 2010 Report indicates that the probability of adequacy is "tenuous" for ten essential nutrients. In this situation, the logical response is surely to provide nutritional support, including supplementation to fill the gaps, even while efforts to improve overall dietary patterns continue. Yet, in the view of the DGAC, only four of these shortfall nutrients are considered to be of public health concern (namely vitamin D, calcium, potassium, and dietary fiber), while shortfalls of vitamins A, C, E, and K are not considered to be of public health concern.

A study of serum vitamin C levels in the 2003-2004 National Health and Nutrition Examination Survey (NHANES) found that 7% of the population had serum levels so low that they could be considered deficient.¹¹ The same report goes on to say that sixteen percent of adults "had vitamin C concentrations that are associated with low energy and weakness as a result of inadequate intake of vitamin C. More than 20% of adults showed marginal vitamin C status, placing them at risk of vitamin C deficiency." CRN suggests that findings such as these cannot be dismissed as being of no public health significance.

At a minimum, the final *Dietary Guidelines for Americans* should recognize all of the shortfall nutrients to be of public health significance and should explicitly urge all individuals to seek to obtain RDA or AI levels of all vitamins and minerals.

Shortfalls of vitamin D

The DGAC recognizes that many children and most adults fall short of recommended intakes of vitamin D, and these shortfalls result in a significant prevalence of deficient or inadequate blood levels of the vitamin. These low levels are insufficient to "promote health and prevent chronic diseases" and may result in "poor bone health and possibly certain types of cancers, cardiovascular disease, and immune-related disorders." Further, vitamin D levels in the U.S. population are getting worse, not better. Vitamin D levels in Americans over the age of 12 "were lower in the years 2000 to 2004 than in 1988 to 1994." Accordingly, the DGAC grants that "if necessary, individuals may consider vitamin D supplementation." This reluctant

¹¹ Schleicher, R. L., M. D. Carroll, et al. (2009). "Serum vitamin C and the prevalence of vitamin C deficiency in the United States: 2003-2004 National Health and Nutrition Examination Survey (NHANES)." *Am J Clin Nutr* **90**(5): 1252-1263.

language positions the use of vitamin D supplements as an option of last resort and hardly constitutes a positive recommendation. The recommendation should be couched in more positive terms without the qualifiers and recognize vitamin D supplements as a legitimate option for assuring vitamin D sufficiency. Fortunately, Americans are already aware that vitamin D intakes are very likely to be low, and they are not just "considering" supplementation but are already actively including vitamin D supplements in their overall diet and lifestyle plans.

Shortfalls of calcium

The DGAC recognizes that "many children and a majority of adults do not meet the AI for calcium. Furthermore, a significant number of Americans have low bone mass, placing them at risk of bone fractures and falls." The 2010 Report urges people to consume more milk or "alternative calcium sources." The term "alternative calcium sources" is defined in the 2010 Report to mean products like soymilk fortified with calcium -- not calcium supplements. While the Executive Summary of the 2010 Report mentions the importance of calcium and vitamin D supplements for reducing the risk of osteoporosis, the section on Nutrient Adequacy in the Report does not, in fact, include any recommendation for calcium supplementation. The NIH consensus conferences on osteoporosis,¹² the Surgeon General's 2004 report on osteoporosis,¹³ and the National Osteoporosis Foundation¹⁴ specifically recognize the contribution of calcium supplements, especially for the elderly. The 2010 DGAC should also affirmatively recognize the evidence supporting the benefit of calcium supplementation for bone health.

Shortfalls of dietary fiber

The DGAC report recognizes that "less than 3 percent of adult men and approximately 6 percent of adult women consume dietary fiber at intake levels that reach the AI." A position statement of the American Dietetic Association recognizes that "dietary fiber intake from whole foods or supplements" may have significant health benefits for the American population,¹⁵ but

¹² NIH Consensus Conference (2001). "Osteoporosis prevention, diagnosis, and therapy." *J Am Med Assn* **285**(6): 785-795.

¹³ Department of Health and Human Services (2004). Bone health and osteoporosis: A report of the Surgeon General. Washington, D.C., U.S. Government Printing Office.

¹⁴ National Osteoporosis Foundation. (2009). "Osteoporosis: fast facts. Prevention: calcium. Prevention: vitamin D." Retrieved January 16, 2010, from www.nof.org.

¹⁵ Slavin, J. L. (2008). "Position of the American Dietetic Association: health implications of dietary fiber." *J Am Diet Assoc* **108**(10): 1716-1731.

the DGAC makes no mention of any potential role for fiber supplements. The Food and Drug Administration also recognizes potential benefits of fiber supplementation and permits a number of health claims relating to specific fiber ingredients, whether they occur naturally in foods or whether they are provided as supplements or added to foods.¹⁶ The final 2010 *Dietary Guidelines for Americans* should also recognize the existence and potential value of fiber supplements, as well as whole foods that are naturally rich in fiber.

Folic acid and neural tube birth defects (NTDs)

The DGAC recognizes that there has been "a large reduction in the incidence of neural tube defects (NTDs) in the U.S. and Canada following mandatory folic acid fortification." However, the 2010 Report fails to mention that the reduction in the incidence of neural tube defects due to fortification does not reach the level of effectiveness that has been observed with folic acid or multivitamin supplementation. The CDC and the Public Health Service had predicted a reduction of 50 to 70% in NTDs if women consumed the full recommended amount of folic acid by supplementation before conception and in the first trimester,¹⁷ whereas the reduction reported by the CDC after fortification was 26%.¹⁸

The DGAC notes that, even in the era of folic acid fortification, "about 22 percent of women of reproductive capacity still do not meet the EAR." The DGAC adds: "Women of reproductive capacity should continue to be counseled to select foods high in folate, and when necessary, take a folic acid supplement to meet their folate requirement." This recommendation is contrary to the 1998 Institute of Medicine recommendation,¹⁹ the Public Health Service recommendation,²⁰ and the current advice of the CDC,²¹ which is for women of childbearing age to consume 400 mcg of synthetic folic acid daily, in addition to folate in the usual diet.

¹⁶ FDA (1997). "Health claims: soluble fiber from certain foods and risk of coronary heart disease (CHD). Codified in 21 CFR 101.81." Federal Register **62**: 3600.

¹⁷ CDC (1992). "Recommendations for the use of folic acid to reduce the number of cases of spina bifida and other neural tube defects." MMWR Recomm Rep **41**(RR-14): 1-7.

¹⁸ CDC (2004). "Spina bifida and anencephaly before and after folic acid mandate, United States 1995-95 and 1999-2000." MMWR **41** (No. **RR-14**).

¹⁹ Institute of Medicine (1998). Dietary Reference Intakes for Thiamin, Riboflavin, Niacin, Vitamin B6, Folate, Vitamin B12, Pantothenic Acid, Biotin and Choline. Washington, D.C., National Academy Press.

²⁰ CDC (1992). "Recommendations for the use of folic acid to reduce the number of cases of spina bifida and other neural tube defects." MMWR Recomm Rep **41**(RR-14): 1-7.

²¹ CDC. (2009). "Facts About Folic Acid." from www.cdc.gov/ncbddd/folicacid/.

Whether the usual diet provides the EAR or RDA for folate is not relevant to this very specific and targeted recommendation for additional folic acid. The EAR and RDA for folate were not established to address NTD's, and the purpose of the supplementation is not to reach the EAR or RDA but is to optimally reduce the incidence of neural tube birth defects specifically. The U.S. Preventive Services Task Force reviewed the folic acid issue in 2009--eleven years after the adoption of mandatory folic acid enrichment-- and reiterated its recommendation that "all women planning or capable of pregnancy take a daily supplement containing 0.4 to 0.8 mg (400 to 800 mcg) of folic acid."²²

The final *Dietary Guidelines for Americans* should incorporate the specific advice provided by the IOM and other expert bodies and should recommend supplemental folic acid, over and above usual dietary intake, for women of reproductive capacity.

Shortfalls of iron

While the Executive Summary of the 2010 Report briefly mentions the importance of iron supplementation for populations deficient in iron, the section on Nutrient Adequacy in the Report contains no recommendation for supplementation with iron. The final 2010 *Dietary Guidelines for Americans* should specifically recognize the appropriateness of iron supplementation in adolescent girls and women of reproductive capacity.

Shortfalls of Vitamin B-12

The DGAC Report mentions the possible desirability of supplemental forms of vitamin B-12 (B-12), stating that people over 50 years of age "should be encouraged to consume foods fortified with B-12, such as fortified cereals, or the crystalline form of B-12 supplements, when necessary." The addition of the qualifying term "when necessary" gives the recommendation a reluctant tone, as discussed above with regard to the vitamin D recommendations. This is in contrast to the clear recommendations of the IOM²³ and of the 2005 *Dietary Guidelines for*

²² U.S. Preventive Services Task Force (2009). "Folic acid for the prevention of neural tube defects: U.S. Preventive Services Task Force recommendation statement." *Ann Intern Med* **150**(9): 626-631.

²³ Institute of Medicine (1998). Dietary Reference Intakes for Thiamin, Riboflavin, Niacin, Vitamin B6, Folate, Vitamin B12, Pantothenic Acid, Biotin and Choline. Washington, D.C., National Academy Press.

Americans²⁴ for the use of B-12 supplementation. The final 2010 *Dietary Guidelines* should be equally clear.

Multivitamins for disease prevention

A. Evidence of Prevention, NIH Conference

The current text of the DGAC report (at D2-41) states: "For the general, healthy population, there is no evidence to support a recommendation for the use of multivitamin/mineral supplements in the primary prevention of chronic disease." This is an erroneous statement which should not be permitted to appear in the final *Dietary Guidelines* issued by USDA

The DGAC statement is contrary to the findings of the 2006 NIH multivitamin state of the science conference²⁵, which concluded after an extensive but selective review that the evidence was not sufficient to recommend for or against multivitamins for chronic disease prevention. The DGAC mistakenly asserts that there is "no evidence" in favor of a preventive effect -- quite a different conclusion.

It should also be noted that the NIH 2006 conference deliberately excluded all observational research from examination. After starting with a universe of over 11,200 studies, it excluded all but 63 randomized clinical trials for review. Nutrition research routinely uses observational data to provide insights on the health benefits of particular foods, including fruits and vegetables, and the NIH conference has been criticized by the scientific community for its narrow approach to evaluating the available evidence²⁶.

It is also relevant to note that the term "multivitamin" for purposes of the NIH conference was broadly defined to include any combination of two or more nutrients and was not limited to broad-spectrum multivitamins as the term is typically understood (including in the DGAC Report).²⁷ In fact, the NIH review included only 11 articles on products that could loosely be called "multivitamins." These 11 articles reported on 5 studies, including the Linxian trial in China with a combination of 3 antioxidants (beta-carotene, vitamin E, and selenium); the

²⁴ Department of Agriculture and Department of Health and Human Services (2005). *Dietary Guidelines for Americans*, Sixth Edition, U.S. Government Printing Office, Washington, D.C., <http://www.health.gov/dietaryguidelines/dga2005/recommendations.htm>.

²⁵ NIH State of the Science Conference on Multivitamins. (2006). "Panel report." from <http://consensus.nih.gov/2006/multivitaminstatement.htm>.

²⁶ Ames, B. N., J. C. McCann, et al. (2007). "Evidence-based decision making on micronutrients and chronic disease: long-term randomized controlled trials are not enough." *Am J Clin Nutr* **86**: 522-525.

²⁷ NIH State of the Science Conference on Multivitamins. (2006). "Panel report." from <http://consensus.nih.gov/2006/multivitaminstatement.htm>.

Su.Vi.Max trial in France with a combination of 5 antioxidants (vitamins C and E, beta-carotene, selenium, and zinc); and 3 studies on cataract or macular degeneration in the U.S. and Europe using limited combinations of antioxidants. Almost all of the rest of the studies reviewed by the NIH conference were studies on single nutrients or pairs of nutrients: beta-carotene, vitamin A, selenium, calcium with vitamin D, and some combinations of B vitamins.²⁸

The evidence report prepared for the NIH multivitamin conference found that the trials using multiple antioxidant vitamins and minerals resulted in a reduction of gastric cancer incidence and mortality in China, a reduction in overall cancer risk in men but not women in France, and some benefit against macular degeneration.²⁹ The various studies on single vitamins or minerals were mixed but did show some protective effects against prostate cancer, colorectal cancer and cardiovascular death. The studies on calcium and vitamin D indicated a positive effect on bone density and a protective effect against hip and other fractures in people with low intakes of these nutrients.³⁰ These findings demonstrate some positive benefits, which must be recognized.

B. Evidence of Prevention: CRN Publication "Benefits of Nutritional Supplements"

The Council for Responsible Nutrition has published four editions of a reference entitled "Benefits of Nutritional Supplements" and is in the process of finalizing the 2010 edition. The document summarizes the scientific evidence relating to the nutritional status of Americans, the role of nutritional supplements in compensating for nutrient shortfalls, the characteristics of supplement users, and the benefits of specific supplements for health promotion and disease prevention. Specific topics include: calcium and vitamin D for bone health, folic acid for protection against some birth defects, supplemental nutrients recommended during pregnancy and aging, the complex state of the evidence relating to antioxidants and B vitamins, and the health benefits of increased intakes of omega-3 fatty acids and fiber.

²⁸ Huang, H.-Y., B. Caballero, et al. (2006). Multivitamin/Mineral Supplements and Prevention of Chronic Disease No. 139. Prepared by the Johns Hopkins University Evidence-based Practice Center, Baltimore, MD. Rockville, MD, Agency for Healthcare Research and Quality.

²⁹ Ibid.

³⁰ Ibid.

Submitted as a separate addendum to these comments is a summary³¹ of the 2010 edition of CRN's document "Benefits of Nutritional Supplements," which will appear in complete form later this year. This evidence is submitted as an integral part of these comments as further support for the proposition that vitamin and mineral supplements can and do provide meaningful benefits for virtually all segments of the population.

C. Motivations for Using Multivitamins

While there is evidence demonstrating the health benefits of many specific nutritional supplements, the primary motivation for using **multivitamins** is not disease prevention. People take multivitamins primarily for promoting overall health and wellness and to fill nutrient gaps,³² not for disease prevention.³³ The possible exception to this general rule is the use of multivitamins with folic acid by women of childbearing age to reduce their risk of having a baby with a neural tube birth defect -- a use firmly supported by observational and clinical evidence and by official advice from the IOM, CDC, and the U.S. Preventive Services Task Force. People are well aware that their diets are not perfect, and add a multivitamin for insurance. Parents give their children multivitamins; adults take them regularly; and virtually all obstetricians recommend a prenatal supplement for pregnant women. Adult use of multivitamins and other supplements increases with age and is highest in people over 50. Usage is higher in women than in men in all age groups, perhaps because women tend to be more interested in nutrition and health. Supplement use is not undertaken in a vacuum, but is undertaken as part of a search for wellness and for a healthy lifestyle, as shown by the fact that supplement use is related to other health habits, including making an effort to consume a healthier diet.³⁴ If taking a multivitamin were to also result in protection against some chronic diseases, that would be an additional benefit -- but disease prevention is not the primary motivation for multivitamin use.

D. Reliance on Multivitamins Should not be 'Discouraged'

³¹ See addendum document entitled "Benefits of Nutritional Supplements: Summary of 2010 Edition. Compiled by Annette Dickinson, Ph.D., for the Council for Responsible Nutrition. Copyright 2010 Council for Responsible Nutrition, Washington, D.C.

³² CRN. (2009). "CRN Consumer Survey on Dietary Supplements." Retrieved February 1, 2010, from www.crnusa.org/prpdfs/CRNPR2009CRNConsumerSurvey_UsageConfidence.pdf.

³³ Dwyer, J. (2005). "Why do Americans use dietary supplements?", from ods.od.nih.gov/pubs/fnce2005/J-Dwyer-Why%20Do%20Americans%20Use%20Dietary%20Supplements.pdf.

³⁴ Radimer, K., B. Bindewald, et al. (2004). "Dietary supplement use by US adults: data from the National Health and Nutrition Examination Survey, 1999-2000." *Am J Epidemiol* **160**(4): 339-349.

The current text of the DGAC report (at D2-41) states: "Although intake of a variety of multivitamin/mineral supplements increase blood levels of many nutrients, notably in individuals with suboptimal nutrient status before supplementation... long-term effects on primary prevention of several chronic diseases has not been demonstrated. In this context, obtaining essential micronutrients from foods when possible is the optimal approach and reliance on multivitamin/mineral supplements is discouraged."

This statement assumes that the only valid reason for using a multivitamin would be to prevent chronic disease, when in fact the primary reasons for using a multivitamin are to fill nutrient gaps³⁵ and to support overall wellness.³⁶ While obtaining essential micronutrients from foods may be "optimal," the DGAC Report convincingly documents that achieving recommended intakes of nutrients without exceeding desirable calorie levels is difficult. By recognizing multiple nutrient shortfalls but discouraging multivitamin use, the DGAC is, in effect, saying that living with shortfalls is preferable to filling nutrient gaps with reasonable dietary supplements. This is not a view that is supportive of the efforts of the majority of Americans who recognize that they have nutritional shortfalls and are seeking in multiple ways to improve their overall wellness in the context of a healthier lifestyle.

There is no scientific basis for discouraging the use of multivitamins, and this unsupported advice should not appear in the final 2010 *Dietary Guidelines for Americans*.

E. Health Benefits from a Multivitamin

The current text of the DGAC report (at D2-49) states: "A daily multivitamin/mineral supplement is unlikely to offer health benefits to healthy Americans." This is a false statement which ignores the benefit of filling nutrient gaps for all population groups. It also ignores the benefit of a multivitamin with folic acid for women of childbearing age or a prenatal multivitamin for women who are already pregnant. (See previous discussions.) This statement should not appear in the final 2010 *Dietary Guidelines for Americans*.

Recommendations regarding the marine omega-3 fatty acids EPA and DHA

³⁵ CRN. (2009). "CRN Consumer Survey on Dietary Supplements." Retrieved February 1, 2010, from www.crnusa.org/prpdfs/CRNPR2009CRNConsumerSurvey_UsageConfidence.pdf.

³⁶ Dwyer, J. (2005). "Why do Americans use dietary supplements?", from ods.od.nih.gov/pubs/fnce2005/J-Dwyer-Why%20Do%20Americans%20Use%20Dietary%20Supplements.pdf.

The 2010 Report includes recommendations for increased consumption of fish providing the marine omega-3 fatty acids EPA and DHA. According to the DGAC, in order to reduce the risk of cardiovascular disease and diabetes, "the preponderance of the evidence indicates beneficial health effects associated with...consuming two servings of seafood per week (4 oz cooked, edible seafood per serving) which provide an average of 250 mg/day of n-3 fatty acids from marine sources...[and] ensuring maternal dietary intake of long chain n-3 fatty acids, in particular DHA, during pregnancy and lactation through two or more servings of seafood per week, with emphasis on types of seafood high in n-3 fatty acids and low methyl mercury content."

The DGAC Report thus provides a helpful clarification regarding the necessary balance between achieving recommended intakes of EPA and DHA and avoiding the types of fish or seafood that may be of concern due to levels of methyl mercury. It would be useful to consumers if the DGAC also mentions the alternative of consuming dietary supplements with highly purified EPA and DHA.

Need for more information about dietary supplement usage and effects

The DGAC recommends studies on the precision of self-reported intakes of multivitamin/mineral supplements, on the composition and bioavailability of such products, and on health outcomes in various population groups, including safety and risk assessments. CRN agrees that additional research on dietary supplements is important.

Conclusion

The Report of the 2010 DGAC may provide some impetus for reconsideration of food policy in the U.S., where Americans are currently overwhelmed by a food supply that is calorie-dense and nutrient-poor. The DGAC convincingly documents the existence of multiple nutrient shortfalls and the difficulty of achieving nutrient adequacy without exceeding desirable intake of calories. While recognizing that nutritional adequacy with respect to at least 10 essential nutrients is "tenuous," the DGAC adopts a generally negative view of dietary supplements, including multivitamins, which can actually help to achieve nutritional adequacy.

More than half of Americans currently use dietary supplements, indicating that they understand the value of taking advantage of readily available nutritional support, as they strive to achieve a

healthier lifestyle to support personal wellness. The 2010 DGAC takes many long steps backward from the more reasonable advice offered in other expert reports, with respect to dietary supplements. American consumers deserve more support for their efforts to achieve nutritional adequacy in the face of a negative food environment.

Thank you.

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Council for Responsible Nutrition