

Dietary Supplements: Appropriate Use

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In general, supplements are useful for individuals who are unable or unwilling to consume an adequate diet. Physicians commonly recommend vitamins for very young children until they are eating solid foods that contain enough vitamins. After a child reaches the age of two, however, it is seldom necessary to continue supplements "just to be sure." In 1980, the Committee on Nutrition of the American Academy of Pediatrics stated that supplements might be appropriate as follows:

- Fluoride supplements should be given to children not drinking fluoridated water.
- Children with poor eating habits and those using weight-reduction diets can be given a multivitamin-mineral supplement containing nutrients not exceeding RDA levels.
- Children on strict vegetarian diets may need supplementation, particularly of vitamin B12.
- Pregnant teenagers are likely to need supplementary iron and folic acid. [1]

The U.S. Preventive Services Task Force recommends that women who might become pregnant take a daily multivitamin or multivitamin/mineral supplement that contains 0.4 mg of folic acid in order to reduce the risk of birth defects in their offspring [2]. Although a well-balanced diet will provide adequate amounts of folic acid, the task force felt that, for some women, achieving adequate dietary intake might be more difficult than taking supplements.

Individuals using prolonged weight-reduction diets, particularly diets that are below 1200 calories per day or are nutritionally unbalanced, may benefit from a multivitamin-mineral supplement. People recovering from surgery or serious illnesses that have disrupted normal eating habits may also benefit from supplementation.

Elderly individuals who become sedentary or lose interest in eating may not get sufficient nutrients; they too may benefit from multivitamin-mineral supplementation. Unadvertised brands costing about 5¢ per day are available.

Because iron deficiency is not rare, a National Academy of Sciences committee has recommended that pregnant women take a 30-mg supplement daily during the second and third trimester [3]. Although adequately nourished women do not need supplementation, it is simpler and less costly to supplement the diet than to measure blood iron levels several times during the pregnancy. The committee also suggested that although the best way to obtain nutrients is from food, pregnant women who ordinarily do not consume an adequate diet might benefit from a multivitamin-mineral supplement containing moderate dosages of iron, zinc, copper, calcium, vitamin B6, folic acid, vitamin C, and vitamin D.

Women should be sure that their intake of calcium is adequate to help prevent thinning of their bones (osteoporosis). The National Academy of Sciences advises Americans and

Canadians at risk for osteoporosis to consume between 1000 and 1300 milligrams of calcium per day [4]. This can be done with adequate intake of dairy products, but some women prefer calcium supplements. Women should discuss this matter with their physician or a registered dietitian.

Unless they choose a proper balance of foods, vegetarians who completely avoid animal products are at risk for several deficiencies, especially vitamin B12. The other nutrients at risk are riboflavin, calcium, iron, and the essential amino acids lysine and methionine. Vegetarian children not exposed to sunlight are at risk for vitamin D deficiency. Zinc deficiency can occur in vegans because the phytic acid in whole grains binds zinc, and there is little zinc in fruits and vegetables. Since B12 is present only in animal foods and a limited number of specially fortified foods, vegans should probably take B12 supplements prescribed by a physician.

[Antioxidants](#) have received a lot of favorable publicity. For most people, however, using antioxidant supplements does not make sense [5].

People with malabsorptive diseases or who have had portions of their intestinal tract removed may need supplementation to achieve adequate nutrition.

High (above-RDA) doses of vitamins should be regarded as drugs rather than supplements. Although situations exist where above-RDA dosage can be beneficial, these should be managed with medical supervision. Most high-dose recommendations by the health-food industry and its allies are not valid [6]. As the late John H. Renner, M.D., president of the National Council against Health Fraud, has aptly pointed out: "Nutrition is awfully important in a variety of illnesses as prevention and, in a few, as treatment. But you don't put out a fire with the same things you use to keep it from starting." [7]

Don't Waste Your Money

The best way to get vitamins and minerals is from foods in a balanced diet. If your diet is missing any nutrients, it may also lack components (such as fiber) that will not be supplied by pills. If you think your diet may be deficient, you can use the U.S. Department of Agriculture's [MyPyramid Tracker](#) to evaluate it [8].

For professional advice, keep a food diary for several days and ask a registered dietitian (R.D.) or physician to help you. If you have a shortfall, try to correct it by adjusting your diet. If this is impossible, and you conclude that you need a supplement, purchase one whose label lists nothing above 100% of the Daily Value—and take one every other day. Since products meeting this description can be obtained for about a nickel per pill, this method would cost no more than a dollar a month.

References

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