



The All-Important Multi-Purpose Multivitamin

Would you like to supplement your not-always-optimal diet with vitamins, but don't know where to begin? Would you prefer not to take a lot of pills? If you'd rather not take separately each of the vitamins you may need, a high-quality multivitamin is probably a good place to start.

The Traditional Perspective

Two Harvard Medical School physicians reported in the *Journal of the American Medical Association* (JAMA, 2002) that "all adults" should take vitamin supplements because evidence has shown that insufficient vitamin intake is a risk factor for chronic diseases, including cardiovascular disease, osteoporosis, and cancer. While vitamin supplementation is viewed as an inadequate substitute for a good diet [generally, low in saturated fat (in beef, pork, lamb, and duck), sugar, sodium, and processed foods; high in lean protein (in fish, chicken, turkey, soy, eggs, and whey), mono- and polyunsaturated fats, vegetables, and fruits/berries], there is a general concern that most American adults maintain diets of insufficient nutritional value. Conventional medicine thus recognizes that "a large proportion of the population needs supplements of more than one vitamin."

Although most traditional physicians do not prescribe vitamin regimens to resolve health conditions, they often do recommend that their patients at least take a daily multivitamin in accordance with the JAMA guideline. Those with limited backgrounds in nutrition often recommend multivitamins that provide the Recommended Daily Allowance (RDA), the level of intake of essential nutrients that the federally chartered Food and Nutrition Board of the Institute of

Medicine deems to be adequate to prevent a nutrient deficiency. The optimal nutrient intake levels are actually much higher than 100% of the RDA.

What Is A Multivitamin?

All multivitamins are designed to provide a bit of convenient "health insurance," but generally do not contain therapeutic doses that fully support specific health conditions. A large variety of convenient multivitamins are available to suit a wide range of needs.

The most basic formulas, which come in assorted potencies, contain water soluble vitamins (including the B-vitamins and Vitamin C, which readily leave the body), fat soluble vitamins (Vitamins A, D, E and K), and minerals, which support or form our body tissues, bones, nerves, and blood. More complex options may offer age-, gender-, or condition-specific herbs (e.g., saw palmetto, vitex, or dong quai) and nutraceuticals, and/or vegetable/green foods (e.g., spirulina, chlorella, barley grass, wheat grass) or high-antioxidant fruits (e.g., açai, mangosteen, blueberries, strawberries, pomegranates). They may address concerns such as those related to prostate, breast, urinary tract, or heart health. There are also options that contain nutrients derived strictly from whole or raw foods, or are synthesized in a laboratory (absorbed and utilized like food when taken with food). Finally, you can select from tablet or capsule formulations that can call for taking one, or up to as many as six, pills per day. The cost for a quality multivitamin can generally range from under \$10 to approximately \$35 per month, or roughly .33 cents to \$1.16 per day.

To determine the right multi for you, consider whether you: (1) prefer

capsules (generally considered easier to swallow and digest); (2) may lack certain dietary nutrients (deficiencies can be determined from tests); (3) would like extra support for a particular aspect of your health; (4) are willing to take more than one pill per day; and/or (5) expect to feel different from taking the supplement. Keep in mind that men and women require different vitamins, at different times in their lives, in different amounts. In our experience, multivitamins containing high-potency B-Complex, ample amounts of antioxidants (including Vitamins A, C, and E, selenium), and probiotics (ideally taken separately as a refrigerated supplement), have the greatest noticeable impact on the energy and immunity of those individuals who generally maintain poor diets and are unaccustomed to taking high-quality vitamins.

The ABCs of Multivitamins

Below are listed some of the more basic, but critically important, nutrients included in multivitamins, along with their principal functions. Since the scope of this article permits only a limited discussion of multivitamin components, we urge you to research others of interest to determine if they may benefit you.

Vitamin A/Beta Carotene

Principal Functions: an antioxidant that supports vision (prevents night blindness); supports skin health (prevents acne, especially when taken with zinc picolinate); slows the aging process; and boosts the immune system against viruses (colds, flu, warts) and cancer (especially cervical cancer). Special Notes: 25,000 i.u. /day can be taken safely, but daily doses exceeding 100,000 i.u. can

be toxic to the liver, where Vitamin A is stored; antibiotics, laxatives and some cholesterol-lowering drugs interfere with Vitamin A absorption; 10% of beta carotene (which is not stored in/toxic to the liver) converts to Vitamin A as the body needs it.

B Vitamins

Include Thiamin (B1), Riboflavin (B2), Niacin/Niacinamide (B3) (cholesterol balancing; stress/anxiety), Pantothenic Acid (B5) (adrenal gland support), B12 (red blood cell builder; nervous system protection), Biotin (hair/skin/nails support), Inositol (sleep, stress/anxiety), and Folic Acid (cardiovascular support).

Principal Functions: these water-soluble vitamins maintain healthy nerves, skin, hair, eyes, mouth, digestive system, and brain function; can alleviate stress/anxiety, depression, and fatigue. Special Notes: B vitamins should be taken together in the same doses, after which higher doses of single B vitamins can be added to a regimen; all drugs (including antibiotics), alcohol, stress, and caffeine can cause B vitamin deficiencies, and a deficiency in one B vitamin often indicates a deficiency in others.

Vitamin C

Principal Functions: an antioxidant that is required for hundreds of metabolic functions; supports tissue growth/repair, adrenal gland function, and gum health; can reduce asthma/allergy symptoms and the length or severity of the common cold; increases the absorption of iron. Special Notes: all drugs (including analgesics, antidepressants, anticoagulants and oral contraceptives), alcohol, and smoking can reduce body levels of Vitamin C; non-acidic/buffered Ester-C is four times more bioavailable than regular Vitamin C.

Vitamin D3 (Cholecalciferol)

Principal Functions: this fat-soluble vitamin-hormone protects the skin against premature aging (especially when applied topically); boosts immunity, especially against breast and colon cancer; enhances calcium absorption and reduces bone loss; provides mood support at daily minimum levels of 5,000 i.u. Special Notes: Vitamin D must be taken with calcium; intestinal, liver and gallbladder disorders, antacids, some cholesterol-lowering drugs, and steroids/cortisone interfere with Vitamin D absorption.

Vitamin E (100% Natural Mixed Tocopherols):

Principal Functions: this fat soluble antioxidant prevents some cancers and cardiovascular disease; improves circulation by thinning the blood; required for tissue repair; minimizes PMS and peri/menopausal symptoms; can prevent scarring. Special Notes: Vitamin C regenerates Vitamin E; take Vitamin E and iron separately; consult your physician before taking Vitamin E with an anticoagulant drug such as Coumadin/Warfarin.

Vitamin K

Principal Functions: required for blood clotting; essential for bone formation and repair, and thus inhibits osteopenia, osteoporosis, and osteoarthritis; assists in the storage of glucose in the liver, thus promoting healthy liver function and blood sugar levels. Special Notes: Vitamin K is contraindicated with blood thinning drugs; antibiotics increase the need for Vitamin K.

Conclusion

Multivitamins are certainly not a panacea, but they are a great, and relatively easy and inexpensive, first step toward proper nutrition. Try experimenting with different brands and formulas until you find one that feels like it is making a difference. If you suffer from a chronic condition, consider consulting a clinical nutrition expert for a nutritional supplements regimen beyond a

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