

Vitamins

by Dr. Hampton Richards

Nutritional supplementation in the form of vitamins or herbal compositions is a popular and expanding field in health care. This market has evolved from a growing interest in Eastern medicine and alternative remedies as well as through the proven association between deficiencies in certain basic vitamins and minerals with the development of chronic disease. The majority of Americans regularly take nutritional supplements with almost half using "alternative" or "herbal" remedies, yet more than 50% do not report this use to their medical practitioner. Despite this widespread use, there has been little evidence in formal studies that incorporation of these substances is effective in preventing or resolving disease. Recent publications are even questioning the benefit of a daily multivitamin, a mainstay in U.S. health policy, due to questions about absorption and necessity.

So besides a healthy diet, what else do you need? Nutritional

supplementation for women is different than for men. Folic Acid is an important precursor for cellular division and is essential in early pregnancy to decrease the development of spinal bifida or other neural tube (spinal cord) defects. The typical American diet is deficient in folate, even for those who are good about eating their green leafy vegetables, fruits, and grains. As the infant spinal column develops in the 3rd and 4th week after conception and over half of all pregnancies in this country are unplanned, the United States Preventive Services Task Force recommends 400-800mcg of folic acid a day for all women of childbearing age. Most daily vitamins contain 400mcg while prenatal vitamins tend to increase this amount to 800mcg.

Increased iron needs are required for women to replace losses from menses as well as to supply a health pregnancy. 10% of American women have iron deficiency, while that number for American men is closer to 4%. For this reason, women of childbearing years are recommended to have 15mg of

elemental iron a day. This number increases to a range between 30 - 120 mg during pregnancy depending on need.

Calcium and Vitamin D are also recommended for women of all ages for the formation and maintenance of bone health. Osteoporosis (bone weakness leading to fracture) affects more women in America than breast cancer, stroke, and heart attacks combined. Though the beneficial effects of oral calcium have recently come into question through well-designed studies, most organizations still recommend 1200 mg of calcium a day (four servings of dairy products). Most multi-vitamins contain around 600mg. Vitamin D is just as important since 40 - 60% of Americans have decreased stores, likely related to our diet and lack of sunlight (which is necessary for our body to create this vitamin). Between 400 and 800 International Units of Vitamin D are recommended a day depending on your risk of fracture. Most vitamins contain 400 IU.

One thing to consider when choosing a supplement is the amount of that vitamin or mineral you are ingesting as a proportion of the recommended daily value or dose (listed as “% DV” on the bottle). While a deficiency of a particular vitamin in your diet can be harmful, over ingestion can be much more dangerous. Many vitamins in large doses have been shown to cause cancer, blood clots, birth defects, and cardiovascular disease. Vitamin A, for example, is well known to cause fetal abnormalities at relatively low levels, just a few times more than the daily recommended dose. For this reason, prenatal vitamins have half the dose which standard multivitamins contain.

Additionally, many of the components in supplements are untested and, worse, unregulated. Unlike FDA approved medications, producers of supplements have no legal obligation to prove that their products work, that they are safe, or that they are even including the components that are listed on the bottle (there are countless reports of supplements that have absolutely

none of a stated product when formally tested). We tend to think of herbal supplements and vitamins as being “natural” and harmless, yet it is beneficial to remember that many of our strongest medications are also derived from plants (estrogen, aspirin, and some chemotherapeutic agents). Therefore, some of the “natural” products which treat the same diseases carry similar risks (black cohosh used for hot flashes is similar to estrogen and has similar concern for blood clots or uterine cancer in high doses). Finally, many of these supplements have not been tested in pregnancy or lactation and involve an unknown risk to the developing infant, especially when considering that there might be chemicals present which are not listed on the bottle.

In summary, if you chose to use supplements, make sure you are buying them from a reputable source (Whole Foods does a good job) which is conscientious about which brands they carry in order to ensure you are getting what you pay for. Additionally, don't stray far from the daily recommended doses

of any particular substance. We are finding more and more problems reported with “mega-doses” of any medication. As always, a balanced diet and an active lifestyle are fundamental to any healthy program. Focusing on an array of fresh vegetables, fruits, and complex carbohydrates (preferably organic) which have a diverse blend of nutrients and anti-oxidants will likely prove far more important in your future health than any new vitamin trend. An additional supplement of a generic multivitamin a day or use of any of the above listed vitamins as they apply to you, will likely round out your nutritional needs. Finally, don't be shy about listing these supplements in your conversation with your physician. It's an important part of your medical history and should be considered as it may have a serious impact on your overall health.