

One More Bad Vitamin Study

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By Michael Mooney

Reviews of a study ¹ by Neuhouser recently hit most major newspapers, like the Los Angeles Times, with the title

Most Multivitamins Show No Benefit in Preventing Chronic Diseases

“In a study of post-menopausal women, most of the popular supplements do nothing to reduce the risk of heart disease, stroke or a variety of cancers.”

The article opens by saying, *“The news about vitamins keeps getting worse.”* It then references a number of studies that have been published over the last few years that said that vitamins didn't really do anything and they might even be harmful.

I assert that all of these studies are easily debunked and that they are part of a campaign created by drug companies to misinform the public, because if you take more vitamins, you'll likely be so healthy over the long run that you might not have to take as many drugs. Simply put the drug industry will lose money and they know it. If this seems hard to believe, consider how many powerful entities have recently been convicted of lying to and stealing from the public when big money is involved. If drug companies were run by God and a band of angels with Ph.D.'s this might not be true.

However, careful long-term analysis reveals the smoking gun. The medical/pharmaceutical industry is creating these studies in its long-term strategy to protect itself from the healthy competition that the progressive use of vitamins represents. Consider this scenario dictated by greed as a worst case scenario that could easily be true unless there are laws in place to stop it. There aren't.

To read more articles that debunk these bad vitamin studies and show you the smoking gun that points at a drug company campaign against vitamins, go to <http://www.michaelmooney.net/#Corrections>

Here's my analysis of this study.

Summary: This study confirms once again that vitamins taken in potencies that have long ago been proven to be too low to produce any kind of optimal effects do not produce optimal effects on reducing the risk of cancer and cardiovascular disease.

Misinforming Doctors and Patients Alike

This study has gotten considerable media attention recently. Like other studies of its kind, its conclusion will likely have a great affect on physician's statements to their patients about the use of multivitamins, causing doctors to say that multivitamins have no value in reducing the risk of cancers and cardiovascular disease.

What the study said was true, but what it leads us to believe is not. *“In a study of post-menopausal women, **most of the popular supplements** do nothing to reduce the risk of heart disease, stroke or a variety of cancers.”* If the authors had fully disclosed what thousands of other published studies show, they would have added, *“This applies only to very low potency multi-vitamins, like Centrum. Numerous other studies suggest that vitamins with higher potencies may have significant effects on reducing the risk of cancers and cardiovascular disease.”*

However, the authors left out this disclosure and in effect created a feeling that all vitamins don't work, deceiving the public by omission. The newspapers continued the trend towards deception by emphasizing this in the text of their articles, and not providing a counterpoint.

Unfortunately, many doctors don't have time to search for and read the full text of all the studies that are published, so they get too much of their information about nutrition from poorly-grounded newspaper headlines.

Other higher quality studies have given good indications that some vitamins and minerals in higher potencies than this study looked at do reduce risks of some cancers and cardiovascular disease. Here are a few.

Calcium at 1300 mg per Day

For instance, the National Institutes of Health (NIH)-AARP Diet and Health Study showed an increasing reduction in the risk of digestive system cancers of 31 percent for women and 23 percent for men when calcium intake increased to 1300 mg per day. Higher supplemental calcium intake was also associated with less risk of colorectal cancer. ² A large review study examined many studies and found that higher calcium intake also equaled less risk of breast cancer. ³

Vitamin D Dosing Higher Than the RDA

Still another study found that women who had low vitamin D blood levels have five times more risk of breast cancer than women with higher blood levels that require taking as much as 5,000 to 10,000 IU of vitamin D per day. ⁴ Other studies point to the same effect. While studies like the Women's Health Initiative showed that vitamin D at 400 IU per day had no effect on reducing the risk of breast cancer, numerous studies have shown that vitamin D dosing over 800 IU per day equaled significantly less risk of breast cancer. ^{5 6 7 8} Highly regarded vitamin D authority Dr. Michael Holick confirmed the need for higher vitamin D dosing to reduce cancer risk in correspondence published in the New England Journal of Medicine in 2006. ⁹

Selenium At 200 mcg Per Day

Selenium, a mineral, taken at 200 mcg per day, has numerous publications supporting its anti-cancer effects, with one quality study showing a 25 percent reduced risk of total cancers. ¹⁰ Another study published in the Journal of the American Medical Association showed a reduced risk of prostate, lung, colorectal and total cancers and a 49 percent reduction in the risk of total cancer mortality. ¹¹

Yet another study showed a 63 percent reduced risk of prostate cancer with 200 mcg of selenium per day taken over a 10-year period.¹²

Vitamin E At 400 To 800 IU IU Per Day

Cardiovascular risk reduction has also been seen with higher vitamin doses. The Iowa Women's Health Study found a 47% reduction in cardiac mortality¹³ as well as a significant reduction in the risk of colon cancer of more than 50 percent as vitamin E supplement dosing increased, with 400 IU per day being the highest vitamin E dose noted in the study.¹⁴ In the best known of these trials, the Cambridge Heart Antioxidant Study, vitamin E at 400 IU to 800 IU per day significantly reduced the incidence of overall fatal and nonfatal coronary heart disease events by 47 percent and the incidence of nonfatal myocardial infarction by 77 percent.¹⁵

In fact, dose comparison studies of Vitamin E consistently show that doses of supplemental Vitamin E of 400 IU or higher can produce important health benefits that lower doses can't provide. For instance, one placebo-controlled dose-response comparison study showed that while Vitamin E dosing at 60 IU or 200 IU per day had no effect on reducing the oxidation of LDL cholesterol that can precede the formation of cholesterol plaque in arteries, increasing doses of 400, 800 and 1,200 IU produced dose-related increasing reductions in the oxidation of LDL cholesterol in the blood stream of 25 percent, 58 percent and 61 percent.¹⁶

(To read more about studies that show what doses of nutrients are effective see: <http://www.michaelmooney.net/VitaminSafetyDosesComplete.pdf>)

This study ignored these studies and others that showed that higher doses of nutrients reduce risks of cancers and cardiovascular disease and looked only at low potency vitamins and minerals.

Dose-Dependency

So how credible is this study? Where some studies can be described as elegant, this study was designed with a fundamental flaw that would predict that the authors would find no value in the use of the multivitamins taken by their subjects. This key element is the concept of optimal dosing, which is required for dietary supplements to deliver optimal benefits. In the same manner that you can't get drunk with an ounce or two of beer, numerous studies confirm the concept that vitamins and minerals have threshold potencies where they begin to cause significant beneficial effects for human metabolism. Under this threshold dose there is little or no effect.

Typically, optimal dose-dependent effects for most nutrients occur at doses far greater than the RDA (Recommended Daily Allowance), which is a survival dose that guarantees only that one will not suffer nutrient deficiency diseases and die. The RDA for vitamin E, for instance, is 30 IU per day, less than one tenth the 400 IU daily vitamin E dose that was shown to effectively reduce the risk of cancers and cardiovascular disease. RDA doses have never been considered to be doses that optimize human metabolism.

This study didn't consider the fundamental importance of dosing.

Study Vitamin Doses Too Low

Multivitamins the subjects in the study took were divided into three categories.

1. Multivitamins alone with 10 or more vitamins that provided at least 100 percent of the RDA of the vitamins, but no minerals;
2. Multivitamins with minerals with 20 to 30 vitamins and minerals with nutrient levels of 100 percent or less of the RDA;
3. Stress multivitamins with higher doses (often greater than 200 percent of the RDA) of several B-vitamins and often including larger doses of vitamin C or selected minerals, such as selenium or zinc. The authors did not specify what they considered to be larger doses. Based on several statements the authors made in the study, one can assume that what they consider to be larger doses are, in fact, far too low to be effective.

Centrum Silver Potencies Too Low

The doses that were included in the study are very low doses when we consider the doses in the studies detailed above that showed success. Notably, the only multivitamin mentioned in the study was Centrum Silver, a very low potency multivitamin, which was described in the study as a "standard" multivitamin. Centrum Silver contains 50 IU of vitamin E, far below the 400 to 800 IU doses the studies above showed reduced the risk of cardiovascular disease and cancers, 220 mg of calcium and only 55 mcg of selenium. These are very low ineffective doses, when all is considered.

Many Vitamins Have Optimal Potencies

In contrast to the vitamins this study looked at, there are numerous multivitamin products sold in quality health food stores across the United States that do deliver the nutrient potencies that have been shown to reduce the risk of cancers and cardiovascular disease. This study ignored these products. Look for higher potency multivitamins at your local natural foods stores.

In summary, this study looked at doses that are too low to be effective and, of course, found that they didn't work.

In the future when you read a newspaper headline that says vitamins don't work, the first question you ask should be, "*Were the vitamin doses in the study high enough to work?*"

Yours in health,

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Disclaimer: Michael Mooney is a long-term health researcher and has written for numerous publications about the progressive use of dietary supplements like vitamins, minerals and antioxidants. Michael co-authored a book about complementary medical options, such as nutritional and hormonal intervention for people living with HIV, called [Built To Survive](#), with all profits donated to non-profit HIV research organizations. He is a consultant to companies in the dietary supplement industry and several non-profit medical research organizations. This article was written by Michael Mooney independently of any organization he works with. All responsibility for the statements in the article are his alone and are not a product of anyone else or any organization he works with. The information contained in this article is for educational purposes only, and is in no way a substitute for the advice of a qualified medical doctor, registered dietitian or certified nutritionist. When you ask any professional to help you make your decisions about your personal healthcare, I recommend that you show them the information you find here because they may not be aware of it and the scientific studies that support it. Appropriate medical therapy should be tailored for the individual as no two individuals are alike. I do not recommend self-medicating with any compound as you should consult with a qualified medical doctor, preferably one who is knowledgeable about nutrition and complementary medicine who can determine your individual situation. Any use of the information presented in this publication for personal medical therapy is done strictly at your own risk and no responsibility is implied or intended on the part of the author.

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¹ Neuhouser ML, and associates. Multivitamin use and risk of cancer and cardiovascular disease in the Women's Health Initiative Cohorts. *Archives of Internal Medicine* 2009;169(3):294-304

² Park Y, and associates. Dairy food, calcium, and risk of cancer in the NIH-AARP Diet and Health Study. *Archives of Internal Medicine* 2009;169(4):391-401.

³ Cui Y, Rohan, TE. Vitamin D, calcium, and breast cancer risk: A review. *Cancer Epidemiology Biomarkers & Prevention*. 15:1427-1437, August 2006.

⁴ Lowe LC, and associates. Plasma 25-hydroxy vitamin D concentrations, vitamin D receptor genotype and breast cancer risk in a UK Caucasian population. *European Journal of Cancer* 2005;41:1164-9.

⁵ Rossi M, and associates. Vitamin D intake and breast cancer risk: a case-control study in Italy. *Annals of Oncology* 2009 20(2):374-378.

⁶ Pilz S, and associates. Low serum levels of 25-hydroxyvitamin D predict fatal cancer in patients referred to coronary angiography. *Cancer Epidemiology Biomarkers & Prevention* 17, 1228, May 1, 2008.

⁷ Lappe JM, and associates. Vitamin D and calcium supplementation reduces cancer risk: results of a randomized trial. *American Journal of Clinical Nutrition* 2007;85:1586-91.

⁸ Garland CF and associates. Calcium and vitamin D, Their potential roles in colon and breast cancer prevention. *Annals of the New York Academy of Sciences*. 1999;889:107-19.

⁹ Holick MF. and associates. Calcium plus vitamin D and the risk of colorectal cancer. *New England Journal of Medicine* 2006;356:2287-8, May 25, 2006.

¹⁰ Reid ME. and associates. The nutritional prevention of cancer: 400 mcg per day selenium treatment. *Nutrition and Cancer*. 2008;60(2):155-63.

¹¹ Clark LC, and associates. Effects of selenium supplementation for cancer prevention in patients with carcinoma of the skin. A randomized controlled trial. Nutritional Prevention of Cancer Study Group. *Journal of the American Medical Association*. 1996 Dec 25;276(24):1957-63.

¹² Clarke LC, and associates. Decreased incidence of prostate cancer with selenium supplementation: results of a double-blind cancer prevention trial. *British Journal of Urology*. 1998 May;81(5):730-4.

¹³ Emmert D H; Kirchner J T. The role of vitamin E in the prevention of heart disease. *Archives of Family Medicine* 1999;8(6):537-42.

¹⁴ Bostick RM, and associates. Reduced risk of colon cancer with high intake of vitamin E: The Iowa Women's Health Study¹ *Cancer Research* 53, 4230-4237, September 15, 1993.

¹⁵ Stephens NG, and associates. Randomized controlled trial of vitamin E in patients with coronary disease: Cambridge Heart Antioxidant Study (CHAOS). *Lancet*. 1996;347:781-786.

¹⁶ Jialal I, and associates. The effect of alpha-tocopherol supplementation on LDL oxidation. A dose-response study. *Arteriosclerosis Thrombosis and Vascular Biology* 1995;15(2):190-198.