

The Vitamin D Promise

A special update from Greg Anderson, Founder, Cancer Recovery Group

At current rates, one-in-two men and one-in-three women will personally be diagnosed with cancer in their lifetime. Breast cancer will account for the single most-common diagnosis among women.

Here's the good news: we can now prevent nearly 80-percent of all breast cancers. That's prevent—not early detection or early intervention—but prevention! That is a huge promise. It's real. It's grounded in vitamin D.

If you have followed the nutritional supplement field, you know I am required by law to say these statements have not been evaluated by the U.S. Food and Drug Administration. Further I am required to note that vitamin D supplements are not intended to diagnose, treat, cure, or prevent any disease. But what I can say is, do the research and decide for yourself. Here are the facts:

A Basic Understanding

It all starts naturally with our own body's ability to manufacture vitamin D.

Natural production of vitamin D3 cholecalciferol (pronounced koh•luh•kal•SIF•uh•rawl) in the skin is the single most important fact every person should know about vitamin D—a fact that has profound implications for the human condition. Technically not a

"vitamin," vitamin D is actually a hormone that interacts with over 2,000 genes, about 10-percent of the human genome. Extensive research has implicated vitamin D deficiency as a major factor in the pathology of at least fourteen varieties of cancer, most notably breast and prostate cancer, as well as a variety of other diseases.

Please understand that vitamin D is something we all need but something nearly all of us lack in adequate amounts. And it's affecting our health.

The Science

Since 2005, cancer has become the leading cause of death for people under the age of 85 in America. Cancer now accounts for nearly one in every four deaths in the United States each year. It has also become the single leading cause of death worldwide. But scientific studies suggest that about three fourths of those cancer deaths could be avoided!

Statistics show that two thirds of the deaths that occurred in 2017 alone, for example, were related to lifestyle choices such as tobacco use, obesity, physical inactivity, and poor nutrition and therefore could be prevented.

Enter vitamin D. Excellent science shows that vitamin D hinders inappropriate cell division and metastasis, decreases blood vessel formation around tumors, and regulates proteins that influence tumor growth. It also enhances the immune system's ability to fight cancer as well as promotes the efficacy of several chemotherapeutic medicines.

In some of the most impressive research ever, studies conducted at the Creighton University School of Medicine in Nebraska have revealed that supplementing with vitamin D and calcium can reduce the risk of breast cancer by an astonishing 77-percent. This research provides strong new evidence that vitamin D is the single most effective preventative against breast cancer, far outpacing the benefits of any cancer drug known to modern science.

Here's a portion of the Creighton press release:

Most Americans and others are not taking enough vitamin D, a fact that may put them at significant risk for developing cancer, according to a landmark study conducted by Creighton University School of Medicine.

The four-year, randomized study followed 1,179 healthy, postmenopausal women from rural eastern Nebraska. Participants taking calcium, as well as a quantity of vitamin D3 nearly three times the U.S. government's Recommended Daily Amount (RDA) for middle-age adults, showed a dramatic 60-percent or greater reduction in cancer risk than women who did not get the vitamin.

The results of the study, conducted between 2000 and 2005, were reported in the June 8, 2010 online edition of the American Journal of Clinical Nutrition.

"The findings are very exciting. They confirm what a number of vitamin D proponents have suspected for some time but that, until now, have not been substantiated through

clinical trial," said principal investigator Joan Lappe, Ph.D., R.N., Creighton professor of medicine and holder of the Criss/Beirne Endowed Chair in the School of Nursing.

"Vitamin D is a critical tool in fighting cancer as well as many other diseases."

Research participants were all 55 years and older and free of known cancers for at least 10 years prior to entering the Creighton study. Subjects were randomly assigned to take daily dosages of 1,400-1,500 mg supplemental calcium, the calcium plus 1,100 IU of vitamin D, or placebos. The National Institutes of Health funded the study.

Over the course of four years, women in the calcium/vitamin D3 group experienced a 60 percent decrease in their cancer risk than the group taking placebos.

On the premise that some women entered the study with undiagnosed cancers, researchers then eliminated the first-year results and looked at the last three years of the study. When they did that, the results became even more dramatic with the calcium/vitamin D3 group showing a startling 77-percent cancer risk reduction.

In the three-year analysis, there was no statistically significant difference in cancer incidence between participants taking placebos and those taking just calcium supplements.

Through the course of the study, 50 participants developed non-skin cancers, including breast, colon, lung and other cancers.

Lappe said further studies are needed to determine whether the Creighton research results apply to other populations, including men, women of all ages, and different ethnic groups.

Please grasp the implications of this study. Over four years, the group receiving the calcium and vitamin D supplements showed a 60-percent decrease in cancer.

Considering just the last three years of the study reveals an impressive 77-percent reduction in cancer attributable solely to vitamin D supplementation.

These astonishing effects were achieved on what many nutritionists consider to be a low dose of vitamin D. Exposure to sunlight, which creates even more vitamin D in the body, was not tested or considered. Plus, the quality of the calcium supplements was likely not as high as it could have been. It was calcium carbonate and not high-grade calcium malate or aspartate.

Beyond this ground-breaking study, additional research demonstrates vitamin D to be an effective cancer preventative. The science shows women who are vitamin D deficient have a 222-percent increased risk for developing breast cancer. Numerous studies have shown an inverse correlation between breast cancer mortality and vitamin D levels—when vitamin D levels are low, cancer deaths are relatively high; when vitamin D levels

are high, cancer deaths are relatively low. Today, over 900 scientific studies link vitamin D deficiency with breast cancer.

But the cancer community has been reluctant, slow to respond. Now I am asking you to study the evidence and decide for yourself. As you study, please consider the opinion of the experts, esteemed professionals in vitamin D research:

Cedric Garland, DPH, Adjunct Professor, Family & Preventive Medicine, Cancer Prevention & Control Program at the University of California at San Diego states, "Breast cancer is a disease so directly related to vitamin D deficiency that a woman's risk of contracting the disease can be 'virtually eradicated' by elevating her vitamin D status to what scientists consider to be natural blood levels."

Dr. Michael F. Holick, Ph.D., M.D. and author of "The Vitamin D Solution" reports that there is an incredible potential opportunity to prevent breast cancer simply by increasing the supply of vitamin D in the body through supplements.

Anthony Norman, Ph.D., professor of biochemistry and biomedical sciences at the University of California at Riverside states that the majority of scientists believe that the currently recommended daily intake of vitamin D (between 200 IU and 600 IU) is not enough. "There is a wide consensus among scientists that the relative daily intake of vitamin D should be increased to 2,000 to 4,000 IU for most adults."

Tracey O'Connor, M.D., an oncologist at Roswell Park Cancer Institute in Buffalo, NY, states she is now having all her patients supplement with vitamin D. Since vitamin D carries no risk unless taken at enormously high amounts, it can only benefit those who are already healthy by preventing disease, as well as those who are sick. Those with debilitating diseases have been found to be the most deficient in vitamin D, indicating a clear correlation between deficiency and the onset of disease. For example, Dr. O'Connor points out that among women with breast cancer, about 80-percent are vitamin D-deficient.

An Opportunity Missed

A wide range of vitamin D experts, including the Cancer Recovery Group, believed the opportunity for a breakthrough might be possible when the governments of Canada and the United States commissioned an Institute of Medicine (IOM) review on vitamin D recommendations. After three years of study, the Institute's Food and Nutrition Board issued a report saying it has revised its recommendations made thirteen years previously on dietary reference intakes for vitamin D and calcium for Americans and Canadians.

The committee, consisting of more than a dozen panelists, recommended that most Americans and Canadians up to age 70 need no more than 600 IU of vitamin D per day to maintain health. It also stated that those 71 and older may need as much as 800 IUs.

The Food and Nutrition Board claimed in its news release that it reviewed nearly 1,000 published studies and testimony from scientists. It said many studies yielded conflicting

and mixed results on the effects of vitamin D on many important health conditions including cancer, heart disease, autoimmune diseases and diabetes among others. The report concluded that no solid evidence suggests that higher than the recommended dietary reference intakes are needed.

The report was a huge disappointment to the hundreds of us dedicated to the task of actually preventing cancer. The Cancer Recovery Group responded to the new recommendations saying in a news release that "According to scientific studies, right now 70-percent of whites and 97-percent of African Americans are vitamin D deficient. And the evidence is overwhelming that vitamin D deficiency is directly linked to fourteen different cancers, mostly prominently breast and prostate cancer."

The IOM's report ignored research showing that in order to maintain adequate vitamin D levels, much higher doses of vitamin D must be consumed. Excellent research exists to support this position. Unfortunately, the IOM recommendation was made by panelists, only a few of which had experience in vitamin D research. Even worse, the panel suppressed the findings of some of the world's most prominent vitamin D scientists including our esteemed friends Cedric Garland, Michael Holick and Anthony Norman.

Dr. John Cannell, M.D., a vitamin D expert and director of the Vitamin D Council pointed out that the IOM's vitamin D recommendation that a baby and a pregnant woman need the same amount of vitamin D did not make any sense. He said his organization

pressed the IOM to release the comments on vitamin D and health from fourteen vitamin D experts, which have not been released.

Cancer Recovery Group joined him with an on-line petition asking Harvey Fineberg, M.D., Ph.D., President of the Institute of Medicine, to include the testimony of these esteemed scientists. Thereafter, we filed a Freedom of Information request with the Institute of Medicine. Sadly, there has been no response.

In a follow-up statement, the Food and Nutrition Board suggested that without "solid" evidence, it is risky to recommend high intake of vitamin D. It cited vitamin E as an example to suggest that high intake of vitamin D could lead to toxicity issues.

That may sound convincing to some people. But at the sunniest time of a summer day, exposure of the face and arms to the sun for 15 to 20 minutes is known to make a person more than 10,000 units of vitamin D. And there is no toxicity issue in such a natural dose.

The latitude at which you live and your ancestry influence your body's ability to convert sunlight into vitamin D. People with dark skin have more difficulty making the vitamin. Persons living at latitudes north of the 36th parallel cannot obtain adequate levels of vitamin D naturally during the winter months because of the sun's angle.

The research is convincing to all but the most skeptical scientists. Just some of the overwhelming evidence includes

- Sunlight triggers the formation of vitamin D3 in the skin, which is activated in the liver and kidneys into a hormone. This activated form of vitamin D supports "cellular differentiation," essentially the opposite of cancer.
- Vitamin D3 has been repeatedly shown to inhibit the growth of malignant melanoma, breast cancer, leukemia, and mammary tumors in laboratory animals.
- Even synthetic vitamin D-like molecules have prevented the equivalent of breast cancer in laboratory animals.
- Vitamin D3 has also been shown to inhibit angiogenesis, the growth of new blood vessels that permit the spread of cancer cells through the body.

For decades we have known of the evidence that women over 50 years of age who skimp on foods rich in vitamin D are more likely to develop breast cancer. The late Frank Garland, Ph.D., brother of Cedric, who also conducted vitamin D research at the University of California at San Diego, especially noted the anticancer protection of fish because fatty fish is packed with vitamin D.

Saint George's, University of London, previously known as Saint George's Hospital

Medical School, found local production of vitamin D in breast tissue reduces the risk for breast cancer. For women with low breast tissue levels of vitamin D, the risk for breast cancer rose by a staggering 354-percent. This study even suggested women may wish to sunbathe with breast tissue exposed to enhance local vitamin D production.

Dr. Edward Giovannucci, Professor of Nutrition and Epidemiology, at Harvard School of Public Health, in Boston, Massachusetts wrote his support of the Cancer Recovery Group recommendations:

“Because most people do not get adequate vitamin D in typical diets, and because of the potential downsides of excessive sun exposure, most people may benefit from vitamin D supplements. Several groups are at risk for vitamin D deficiency or less-than-adequate intakes-in particular, the elderly, dark-skinned individuals, obese individuals, and those who avoid the sun. For those at a higher risk of vitamin D deficiency, a larger daily supplement dose, on the order of 3,000-4,000 IU, may be required to achieve adequate blood levels which in my opinion are in the range of 30-40 ng/mL based on current knowledge.”

John H. White, Ph.D., Professor, Departments of Physiology and Medicine, at McGill University, Montreal, Canada concurred:

“There is now substantial and compelling evidence that, in addition to its requirement for skeletal integrity, vitamin D sufficiency reduces the risk of

development of a number of cancers, contributes to cardiovascular health, and stimulates immune response.”

We also heard from Susan J. Whiting, Ph.D., Professor of Nutrition & Dietetics, at the University of Saskatchewan, Saskatoon, Canada:

“We know from intake studies that people cannot get much more than 200 IU per day. There's not enough choice in the marketplace nor [adequate] levels in existing foods. That means almost everyone needs a supplement. One must realize that risk/benefit is not confined to high doses. Not taking enough is a risk.”

And from William B. Grant, Ph.D., of the Sunlight, Nutrition, and Health Research Center (SUNARC), San Francisco, California:

“How could the IOM committee have set such low guidelines for vitamin D in light of the large body of evidence that vitamin D has important health benefits affecting risk of many types of disease? While the committee claimed it made a thorough review and assessment of over 1000 studies and reports [Ross et al., 2010], they ignored 49,000 other papers on vitamin D listed at www.pubmed.gov.

Taken together, this evidence suggests that vitamin D plays a central role in regulating the expression of genes and proteins that prevent and inhibit breast cancer. The evidence of vitamin D's influence on key biological functions vital to health and well-being

mandates that vitamin D no longer be ignored by our government, by the health care industry or by individuals striving to achieve and maintain a greater state of health.

Can vitamin D play a role in treating breast cancer, not just its prevention? Yes. The cancer-stopping potential of vitamin D in breast cancer patients has been well-documented. Up to the point of massive differentiation, breast cancer cells maintain vitamin-D receptors that make them susceptible to the anticancer effects of this vitamin-hormone.

Vitamin D supplements and vitamin D-rich foods including salmon, tuna, and fish oils all contribute to transitioning the breast cancer cells from a near-term threat into a long-term manageable condition. If a cell has already undergone malignant transformation, activated vitamin D can team up with other proteins to stimulate programmed death of abnormal cells, the process known as cell apoptosis.

There's more good news. A growing body of evidence shows that a higher intake of vitamin D may be helpful in the prevention and treatment of high blood pressure, fibromyalgia, diabetes, multiple sclerosis, rheumatoid arthritis and other diseases.

Critics of vitamin D point to the potential for overdosing resulting in toxic levels of the vitamin in the blood stream. Symptoms of vitamin D toxicity include anorexia, disorientation, dehydration, fatigue, weight loss, weakness, and vomiting. One study demonstrated these effects when a single-dose of 500,000 IU of vitamin D3 was injected

into a patient. A half-million IU's at once seems irrationally high and no doubt can result in toxicity. But numerous studies show levels of 10,000 IU per day to be safe. The fact is vitamin D toxicity is very rare.

As we previously noted, the skin produces approximately 10,000 IU vitamin D in response to 15 - 20 minutes' summer sun exposure. However, most people do not receive 15 - 20 minutes of sun exposure daily. This is especially true in Northern and Southern latitudes during their winter months. When well adults and adolescents are regularly deprived of adequate sunlight exposure, research indicates the advisability to supplement with at least 2,000 units (IU) of vitamin D daily.

What does all this mean? It means you have a decision to make. It means that if you maintain adequate calcium levels and receive adequate natural sunlight exposure, you can reduce your chances of getting breast cancer by up to 77-percent. Or if you daily consume a high-quality calcium supplement and take premium vitamin D supplements such as those made from fish oil, you could easily have a greater than 77-percent reduction recorded in the Creighton University study.

We now have hundreds of studies to show that most North Americans who live above the 36th-degree parallel, a line that runs roughly from Los Angeles, CA through Atlanta, GA, are deficient in vitamin D. That deficiency has been correlated with a host of diseases, most notably breast and prostate cancers.

I have been at this work for over thirty years. In our early days, the science was not there to support our common-sense claims regarding nutrition and exercise in integrated cancer care. Today the scientific evidence is overwhelming, especially the evidence for vitamin D supplementation. But it is now ignored by our governments. This is exceedingly frustrating and totally unacceptable.

Decide for yourself. I stand by our recommendations for healthy adults to supplement with vitamin D at the rate of 2,000 IU per day, 5,000 IU daily if you are dealing with a cancer diagnosis.

This much I believe to be true: with vitamin D supplementation we can now prevent nearly 80-percent of all breast cancers. This is actual prevention, not early detection or early intervention. And with vitamin D supplementation we can assist in boosting the effectiveness of the treatment of breast cancer.

Those are huge promises. Vitamin D delivers.

The Woodlands, TX

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