

Vol. 30 No. 9

Riordan Clinic

# Health Hunteers Newsletter



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Riordan Clinic is a not-for-profit 501(c)(3), nutrition-based health facility in Wichita, Kansas. We have integrated lifestyle and nutrition to help you find the underlying causes of your illness. Since our inception in 1975, the mission has been clear and unwavering to "...stimulate an epidemic of health."

# The Sun Shines on Vitamin D



#### THE AUTHOR

Jack Challem, BA Member, American Society for Nutrition

If recent research were a political election, vitamin D would win by a landslide. Over the past five years, more than 10,000 medical journal articles have been published on the vitamin. And the pace of research is accelerating. In just the past year, 3,500 reports have been published on vitamin D, about half focusing on people.

Three of every four Americans are either deficient or have borderline deficiencies of vitamin D.<sup>i</sup> Such widespread deficiencies of the "sunshine vitamin" are truly ironic because doctors thought they were vanquished 80 years ago. So the odds are that you need to take it.

Vitamin D is actually a prohormone that the body produces when the skin is exposed to sunlight. It eventually gets converted to calcitriol, a steroid hormone. But when people don't spend at least 15 minutes in the summer sun, they can't make much vitamin D. Many experts, including Michael Holick, M.D., of the Boston University School of Medicine, believe that everyone, including babies and children, should take vitamin D supplements.



Here's a rundown of the latest research.

#### Live Longer and Healthier

In an analysis of 32 published studies involving almost 160,000 people, Danish researchers found that a combination of vitamin D and calcium supplements reduced the risk of death by 7 percent.<sup>ii</sup> While that finding was modest, other research shows stronger benefits.

Ellen Smit, PhD, of Oregon State University, and her colleagues analyzed 12 years of data from 4,731 people. Vitamin D blood levels were lowest in people who were physically frail—that is, abnormally thin, inactive, walking slowly, or weak. Furthermore, people with low levels of vitamin D were 30 percent more likely to die, compared with those who had higher levels of the vitamin. Smit found that people who were both frail and had low vitamin D levels were three times more likely to die compared with the healthiest subjects.<sup>III</sup>

Meanwhile, Israeli researchers reported that seriously ill patients are more likely to survive if they have higher blood levels of vitamin D. In this study, Howard Amital, M.D. and his colleagues tracked patients who were hospitalized for life-threatening infections, heart attacks, heart failure, and accidents. The vast majority of the 130 patients had vitamin D deficiencies. People with higher vitamin D levels lived longer.<sup>1</sup>

#### **Avoiding Physical Disabilities**

You need vitamin D to maintain healthy bones and to reduce the risk of osteoporosis. But you also need the vitamin to make muscle, which keeps those bones in place. The latest findings show that vitamin D can protect against disability, age-related frailty, and death.

### **Contact the Editor**

Please send any comments or suggestions to newseditor@riordanclinic.org.

Thank you for reading,



Dr. Anne Zauderer Editor

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### Health Hunters Newsletter

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To sign up, go to www.riordanclinic.org or email us at information@riordanclinic.org The Sun Shines on Vitamin D continued from page 1...

Researchers at the Wake Forest School of Medicine, North Carolina, analyzed vitamin D levels in 2,099 people and tracked them for a total of six years. At the beginning of the study, two-thirds of the subjects—elderly men and women—were either marginally deficient or had clear-cut deficiencies of vitamin D. People with low vitamin D levels had about a 30 percent greater risk of having some physical limitations and almost twice the risk of disability, compared with people who had higher vitamin D levels.<sup>v</sup>

Meanwhile, Heike A. Bischoff-Ferrari, MD, DrPH, of the University of Zurich, Switzerland, analyzed data from 11 studies in which seniors were given either vitamin D supplements or placebos. More than 31,000 people, age 65 and older, were included in the analysis. Bischoff-Ferrari reported that vitamin D reduced the risk of hip fracture by 30 percent—but only among people who took 800 to 2,000 IU of the vitamin daily. In addition, people taking this range of vitamin D dosage had a 14 percent lower risk of other types of fractures, except for those of the backbone.<sup>vi</sup>

#### **Better Resistance to Diabetes**

Several studies have found that vitamin D supplements (often combined with calcium) can help people maintain normal blood sugar levels.

Researchers at Drexel University, Philadelphia, Pennsylvania, focused on the relationship between obesity, insulin resistance, and vitamin D levels in a study of 12,900 people.

People who were obese and had normal vitamin D levels were almost 20 times more likely to have prediabetes. But among people who were obese and had low vitamin D levels, prediabetes was 32 times more common than average. The researchers noted that obese subjects are at high risk of vitamin D deficiency because the vitamin gets stored in fat tissue, preventing it from being used by the rest of the body.<sup>vii</sup>



Surviving Breast Cancer Maintaining normal to high levels of vitamin D may give women an edge if they're diagnosed with breast cancer.

Hans Wildiers, MD, of University Hospitals, Leuven, Belgium, evaluated 1,800 women whose vitamin D levels were measured at the time of diagnosis. Low vitamin D levels correlated strongly with larger tumor sizes at the time of diagnosis, whereas higher vitamin D levels were associated with smaller tumor sizes.

2

Furthermore, breast cancer patients with higher vitamin D levels lived longer. After three years of follow up, postmenopausal women who had high vitamin D levels were more likely to be free of cancer.<sup>viii</sup>

#### **Reversing Early Prostate Cancer**

Vitamin D might not prevent prostate cancer, but recent studies suggest that the vitamin can help control the disease in its early stages and reduce the risk of dying from it.

Doctors at the Medical University of South Carolina, Charleston, reported that vitamin D supplements might reverse the growth of early prostate cancer, at least in some men. They studied men with low-grade prostate cancer who took 4,000 IU of vitamin D daily for one year.

When the men underwent follow-up biopsies, more than half of the men benefited from a decrease in their Gleason scores, a way of measuring the aggressiveness of prostate cancer. Five men showed no change, and 15 had an increase in either positive biopsy samples or their Gleason scores. Because vitamin D is so safe, it's worth taking if you and your doctor agree to "watchful waiting."

Meanwhile, a study in the *Journal of the National Cancer Institute* found that high levels of vitamin D reduce the risk of death from prostate cancer by more than half.<sup>x</sup>

#### **Better Control of Multiple Sclerosis**

Many researchers have noted that multiple sclerosis (MS) and vitamin D deficiency often go hand in hand. Doctors at René Descartes University, Paris asked 156 patients with relapsing-remitting MS to take 3,000 IU of vitamin D daily. They then compared the patients' relapse rates for a couple of years before starting vitamin D supplements and for a couple of years after taking the supplements.

The changes were dramatic. For every 4 ng/mL increase in vitamin D blood levels, the relapse rate decreased by almost 14 percent. The benefits increased until blood levels of the vitamin climbed to 44 ng/mL. That's the amount of vitamin D needed to activate a variety of enzymes that depend on the vitamin.<sup>xi</sup>



Unless you're spending a lot of time outdoors, and much of your skin is

exposed without sunscreen, you'll need to take vitamin D supplements. John Cannell, M.D., director of the nonprofit Vitamin D Council, recommends that adults simply take 5,000 IU daily. For infants, use vitamin D drops to add up to 1,000 IU daily. For other children and teenagers, 2,000 IU daily.

Do note that vitamin D3 is absorbed far better compared with vitamin D2. And if you're obese, you'll need more vitamin D because it gets stored in fat tissue, preventing the rest of the body from using it.

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# Capital Campaign RIORDAN CLINIC Kansas City

21620 Midland Drive, Suite B, Shawnee, KS 66218

### **Gift Recognition**

All gifts will be listed according to gift level on our website and publications. Gifts over \$50,000 qualify for naming opportunities.

All gifts over \$100 will be gratefully acknowledged and prominently displayed in the new clinic.



# Homemade Sunscreen Recipe

This simple, easy-to-make recipe utilizes all-natural ingredients for a sunscreen that provides SPF protection while nourishing the skin.

Total Time: 20-30 minutes

Applications: 10

#### **INGREDIENTS:**

10 drops lavender 1 tbsp pomegranate oil 3/4 C coconut oil 2 tbsp zinc oxide 2 tbsp shea butter glass jar

#### DIRECTIONS:

- 1. Combine all ingredients except zinc oxide in a jar.
- Place a saucepan with 2 inches of water on stove over medium/ low heat.
- Place jar in saucepan and stir contents until ingredients start to melt.
- 4. Once all ingredients are combined, add in zinc oxide and stir well. Store in a cool place.
- 5. As with other sunscreens, reapply every 2-3 hours while in the sun.



Source: https://draxe.com/homemade-sunscreen/

# Your Sunscreen ( May Be Dangerous

As a mom, thinking I was doing what was best for my kids, I regularly slathered sunscreens from the health food store (but read those labels also!) on my young children's skin; and later, in their teens, I nagged them while on the tennis court to apply their sunscreen. I was bombarded by advertising and admonitions to apply sunscreen to prevent skin cancer anytime while out in the



AUTHOR

Annette Chlumsky, RN

sun. How ironic that those products promoted to prevent cancer are now found likely to speed the development of skin lesions and tumors. Time to rethink Mom's advice!

While sunscreens do prevent sunburns, that protection comes with toxic chemicals including:

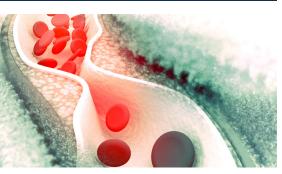
- **Oxybenzone** this chemical readily penetrates deep into the skin. It is a known endocrine disruptor, which means it can affect the function of the thyroid and adrenal glands, and disrupt the balance of estrogen, progesterone, and testosterone hormones. 97% of Americans have this toxic chemical in their bloodstream. Researchers have specifically advised against using this chemical on children.
- Retinyl palmitate this is a form of Vitamin A and is added as an antioxidant to slow down skin aging. It is now known that retinoids (also found in cosmetics) speed the development of cancerous lesions and tumors, especially with exposure to the sun.
- Toxic particles found in spray-on sunscreens. These are advised against because the particles released are by changing easily inhaled into the lungs. Sunscreens that are made with reactive chemicals don't remain effective and will expire, so replacement yearly is advised.
- You would think the higher the SPF, the more protection, but actually with higher SPF the chemicals cause inflammation in the dermis and create more photosensitivity.

Studies have been submitted to the FDA by the Environmental Working Group (EWG), but years later the FDA has not responded by changing any guidelines. Europe is taking a far more stringent stance to ensure customers are protected. For more detailed information, and to see exactly how your sunscreen rates for safe ingredients and efficacy, go to EWG's Sunscreen Guide at http://www.ewg.org/sunscreen/.

Safer sunscreen options do exist. Many contain zinc or titanium minerals, coconut oil, jojoba oil, shea butter, eucalyptus oil, and vitamins D and E. Scrutinize labels before buying or consider blending your own.

# IMPORTANT: If You Take Vitamin D3, You Need Vitamin K2

Vitamin K2 works synergistically with several nutrients, including vitamin K1 (part of the blood clotting mechanism), vitamin D3, and calcium. It is an important fat-soluble vitamin that plays a critical role in protecting your heart, brain and bones, and in cancer prevention. The biological role of vitamin K2 is to help



AUTHOR

Charles Hinshaw, MD Director of Bio-Center Laboratory

move calcium out of places where it shouldn't be, such as arteries and soft tissues, and into places it should be such as bones and teeth.

There is no satisfactory laboratory test for K2. Deficiency of K2 may be suspected in osteoporosis, cardiovascular disease, diabetes, and oral supplementation of vitamin D3. Recommended supplement dosages of the most effective form of K2 (MK-7, menaquinone-7) have increased several times in recent years because of the increasing recommended dose levels of vitamin D3, requiring increasing supplementation with K2. For example, the recommended dose for children of D3 is 400 units per day, and in patients with Multiple Sclerosis the recommended dose of D3 is 5,000 to 7,000 units per day. One method of matching the K2 dose to the D3 dose is to take 100mcg of K2 for every 1,000 units of D3. Vitamin K2 deficiency is actually what produces the symptoms of vitamin D toxicity, which includes inappropriate calcification that can lead to hardening of your arteries. Fortunately, there is no known toxic or overdose level of K2 because our human biochemistry automatically discards excess vitamin K2.

Dr. Kate Rheaune-Beue, author of the "Calcium Paradox: How a Little Known Vitamin Could Save Your Life" estimates that the standard American diet is 90% deficient in vitamin K2. Estimate your intake of K2-MK7, and if low, especially if your total intake of calcium and/or vitamin D3 is high, supplement with appropriate amounts of K2.



### Vitamin D3/K2

The privately formulated Riordan Clinic D3/ K2 supplement combines the amazing healing capacity and safety of vitamin D and vitamin K into the convenience of one capsule to promote bone health, support cardiovascular health and blood sugar balance, boost immune function and support blood circulation.

Visit our online store: store.riordanclinic.org

Upcoming Events

> September 8 12pm - 1pm - FREE\*

Lunch and Lecture -Rev Up Your Health Panel discussion with the Riordan Clinic doctors about what nutrient testing might be right for YOU.

### September 12 - 16

**Check Your Health** 

Discounted lab panels available without a doctor's order. 25% off supplements both in-store and online. www.riordanclinic.org/check-your-health/

September 21

12pm - 1pm - FREE\* Lunch and Lecture -Paindemic: A Holistic Look at How to Manage Chronic Pain Author and speaker, Dr. Melissa Cady will provide insight on how our current medical system addresses chronic pain and what needs to change.

### October 13 - 15

IVC & Chronic Illness Symposium: The Emergence of Redox Medicine

Hosted by the Riordan Clinic, this internationally renown symposium explores the underlying causes of chronic illness, with the intent of elucidating new ways to treat disease in a non-toxic fashion.

\*Complimentary light refreshments will be served.

Visit www.riordanclinic.org to find out more about these events.



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# Vitamin D3: Protect Your Genes with the Guardian Hormone



Dave McCarthy, MD

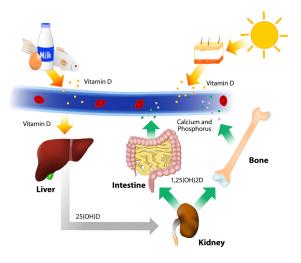
We still call it vitamin D and yet, nearly every knowledgeable speaker on the topic begins by noting it is a hormone. Actually, D3 is a prohormone, which is inert until it undergoes a two-step activation process tightly regulated by the body. That is why D3 has such a wide margin of safety. The major function of the D3 hormone is gene regulation.

Recently discovered functions of D3 regulation uncover the relationship between low D levels and the observed incidence of many disorders, like multiple sclerosis, diabetes, lupus, rheumatoid arthritis and Crohn's disease.

This regulation is accomplished through the binding of the molecule to receptors in a complex with gene codes called Vitamin D Response Elements (VDRE). There are multiple VDREs. Once D3 combines with them, adjacent gene codes are regulated either through amplification or suppression.

In the early years of this decade, there were 2,776 known VDRE sites in our gene code. Only about a third of these resulting gene products are fully known with sufficient precision. This may mean that the D3 hormone is in a shared regulation of almost 10% of the genome. It is difficult to overstate the importance of this observation. A review of a detailed summary of the known gene products affected by D3 revealed a consistent pattern: the genes which were amplified by D3 generally benefit the body while the genes which were suppressed by D3 tend to benefit the body. Our knowledge of these pathways is emerging at an unprecedented pace; therefore, it seems reasonable to conceive of D3 as the guardian hormone.

#### **VITAMIN D**



Clearly, something big is happening with D3. The frequency of diagnosis of D deficiency is significantly up. The sales of D3 continue to increase following the dramatic surge which was apparent since 2008. Several years ago, a prominent newsletter for laboratory technicians noted that the 25-OH vitamin D level had become the most ordered single biomarker in America. The dose strength of the sales has increased from the 400 IU tablet to the 5,000 IU mini capsule. But the most telling sign of the magnitude and depth of this change comes from a national testing laboratory.

The reference range for the 25-OH vitamin D level changed each year from 2007 through 2010. Four changes in four years. The first three changes increased both the lower limit of reference and the upper limit of reference. The fourth change increased the lower limit by the largest amount observed. The reason for the changes is just as critical as the magnitude and frequency of change.

The long standing reference range for 25-OH D was in reference to the observed occurrence of rickets. But rickets is not observed in children with 25-OH D levels of 20 ng/ml or higher. Yet the 2010 reference range indicates that < 50 ng/ml is suboptimal and the upper limit of reference is 100 ng/ml. Clearly, this sea change in range no longer reflects a focus on rickets.



With so much medical research competing for our attention, I've become very selective about which research I'll continue to follow. As a family physician, I pursue research that can be put into practice now. Theories don't help the patients, but actions to detect life-altering deficiencies easily make the cut. The hormone, formerly known as vitamin D, commands my attention. Between 2007 and mid 2011, we checked the vitamin D status of over 7,800 patients in our family practice with over 24,000 results of the 25-OH vitamin D level. That averages about three tests per person. Testing first, to establish the patient's individual baseline. Then testing after daily treatment with D3 to assure sufficiency. One year later, a test to improve compliance.

An efficient screening test is one that is readily available and reliable. To be relevant, there needs to be an available and affordable treatment which corrects one or more conditions. The yield of a screening test can be measured by knowing the number needed to screen (NNS). Think

about how many patients need to be screened with a pap smear to detect a case of cervical cancer. How many mammograms are needed to detect a breast cancer? How many HIV tests? In order to detect one treatable case of vitamin D deficiency, imagine this... you need to screen only three patients.

One final note, in the form of a request. There are two populations which warrant our earliest attention. African Americans have vitamin D levels 40% lower than white Americans. This is due to the melanin darkening the color of skin. Melanin blocks the wavelength of

Vitamin D3: Protect Your Genes with the Guardian Hormone continues on page 7...

ultraviolet light needed to photosynthesize D3. We can level this playing field now. Number needed to screen is one.

During pregnancy, the unborn rely on their mother's vitamin D to succeed. The D level drops across the placenta by about 20%. This is one time the baby is disadvantaged to the mom. We should aspire to have gene regulation less uncertain before birth. After all, D3 is our guardian hormone.

Dr. McCarthy will be speaking at the Riordan Clinic Symposium: IVC and Chronic Illness. His topic, The Panacea Paradox: Vitamin C as a Stress Hormone.

### IVC & Chronic Illness Symposium: The Emergence of Redox Medicine

#### October 13th – 15th | Wichita, Kansas at Hotel At Oldtown \$595 early bird pricing | Up to 21 CMEs available

#### The Riordan Clinic IVC & Chronic Illness

**Symposium** (October 13-15, 2016) explores the underlying causes of chronic illness, with the intent of elucidating new ways to treat disease in a non-toxic fashion. Speakers represent a growing field of pioneers who have found that IVC is a powerful adjunct in the care of chronically ill patients. Although intended for medical professionals, the lectures also serve to inform interested "co-learners" who seek help for themselves and their friends and family through a better quality of life.

Today we are witnessing a profound shift in the medical care of the masses.

Against this backdrop of pervasive human suffering and a widespread future of diminishing medical resources, the 5th Riordan IVC Symposium offers a bold new perspective on the care and treatment of this vast array of chronic illnesses: identify and correct the common denominator of ALL chronic illness – OXIDATIVE STRESS!

Redox Medicine is the patient-centered care approach that focuses on the identification and treatment of the many origins of pervasive oxidative stress: hidden dental infections, key nutrient deficiencies, poor dietary choices, leaky gut syndrome, environmental toxin exposure, hormonal disruption, epigenetic imbalances, and poly-pharmaceutical overload.

Our speakers will systematically address these ROOT CAUSES of the chronic illnesses assailing mankind today. Join us as we explore a unified theory of chronic illness that will redirect medical care to treatments that address and correct the REAL CAUSES of these unexplained and often poorly treated medical epidemics. Together we can contribute to a new era of REAL HEALTH!



### For more information or to register, please visit: IVCandCancer.org

### A Letter from the Editor Dr. Anne Zauderer

As I reflect on the title of this newsletter, *Health Hunters*, it strikes me as such a relevant description of the journey most of us are on with our health. We are quite literally on a hunt to discover how to feel and perform our best.

When I think about hunting, in the primitive sense, it was an action that was necessary for survival. Though we are fortunate enough to live in one of the most prosperous times in history, the fact remains that we are still in a fight for our lives. The predator has morphed into a different form. Instead of running from the proverbial bear, we are now fighting against chronic diseases like heart disease and cancer. The enemy is no longer as apparent to us as it once was. What now threatens our lives are the intangibles like chronic stress, lack of sleep, poor dietary choices and lack of movement.

It is now known:

- Seven of the top 10 causes of death in 2010 were chronic diseases. Two of these chronic diseases—heart disease and cancer—together accounted for nearly 48% of all deaths<sup>1</sup>
- Eighty-six percent of all health care spending in 2010 was for people with one or more chronic medical conditions<sup>1</sup>
- Up to 90% of cancers may be caused by environment or lifestyle<sup>2</sup>

It is time for a change! You cannot rely on our medical system to save you. You must lead your own hunt. Educate yourself and arm yourself with the knowledge to make positive changes in your life. No one gets out of this life alive, but we can live what we have to the fullest with vibrancy and good health!

#### "The only way to make sense out of change is to plunge into it, move with it, and join the dance."

-- Alan Watts

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## The Shawnee Community Welcomes Riordan Clinic!



Shawnee's mayor, Michelle Distler, Dr. Nia and guests at the ribbon cutting hosted by the Shawnee Chamber of Commerce

Our Kansas City office is located in the beautiful community of Shawnee, conveniently located with easy access to parking and surrounding amenities. Opened in July 2016, the Kansas City location provides access to excellent care founded on the same innovative Integrative Medicine therapies and services being offered at the Wichita campus.

To find out more about the Kansas City office, or to become a new patient, please call our New Patient Coordinator at 316.927.4765 (800.447.7276).

Call: 913.745.4757 | Fax: 913.745.5105 Come See Us: 21620 Midland Drive Suite B, Shawnee, KS 66218 Hours: Mon - Wed: 8am - 5pm • Thurs - Sun: Closed

