

HEALTHY TIMES

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Deadly Vitamin D Levels

Research shows an epidemic of vitamin D deficiency!

By Joel Fuhrman, M.D.

More and more evidence is pointing to vitamin D deficiency as one of the primary contributors to America's mounting health crisis. Numerous studies have shown that most Americans are severely vitamin D deficient, a condition that results in increased heart disease, cancer, musculoskeletal disease, and autoimmune disease. In fact, it appears that vitamin D insufficiency exacerbates all diseases. Suffice to say, if you don't get enough vitamin D, your health suffers tremendously.

A recent (2008) study demonstrated that low blood levels of vitamin D (25-hydroxyvitamin D) significantly increase your risk of dying younger. Researchers tracked more than 13,000 people starting in 1988, reviewing mortality outcomes until the year 2000. They found that those in the lowest quartile of vitamin D (less than 17.8 ng/mL) had a 26 percent increased risk of all-cause mortality compared with the highest quartile (greater than 32.1 ng/mL).¹ They also found that lower levels of vitamin D were linked to high blood pressure and diabetes. Vitamin D is an important hormone with thousands of important functions in the human body—not just those related to bones—including helping to maintain normal blood pressure and helping to suppress tumors.²

Deficiency of vitamin D is as severe a disease risk as smoking cigarettes, so it is imperative that you do everything

necessary to maintain normal vitamin D levels. Even if you eat a high nutrient diet and take supplements, neglecting your vitamin D can single-handedly cause you to have a substantially greater risk of disease and premature death than someone who take steps to maintain normal levels.

Optimal vitamin D level

Approximately 50 percent of all Americans have a vitamin D (25-OH) level below 20 ng/mL, which is dangerously low. Most vitamin D researchers consider above 35 ng/mL to be ideal. Unfortunately, almost 80 percent of Americans are below this level.

Too much vitamin D also is harmful, and the study mentioned above found an increased risk of death associated with very high levels. Women in the study whose blood level was greater than 50 ng/mL had significantly increased mortality. Like anything else in the body, there is an optimal level, and either too little or too much can be problematic. For vitamin D, the optimal range is fairly narrow, and you should shoot for levels between 35 and 50 ng/mL.

Most powerful anticancer substance in history

Last year, an interesting study involving about 1,000 women was published. The women were given 1100 IUs of vitamin D each day, and their health was tracked for four years. The researchers found that there were

(See *Deadly Deficiency* on p. 2.)

Deadly Deficiency

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significant reductions in all types of cancer as the study progressed.

This was the first randomized controlled trial to give a dose of vitamin D sufficient to raise the blood level by a biological meaningful amount to 30 ng/mL (80 nmol/L). This was by far the best study ever performed on vitamin D supplements, and the results were remarkable. The vitamin D supplements had a very strong effect at preventing cancer development even in just a few years, and the corrected blood value for vitamin D correlated with the protective effects against cancer.³

This study is especially remarkable because cancer causation is a process that takes decades, yet with a short time frame, vitamin D supplements decreased cancer occurrences by over 50 percent. Had the study gone on longer, it may have shown an even greater reduction in cancer outcomes. If vitamin D supplements were a drug that could produce such cancer reduction, it would be worth zillions of dollars and would be touted as the most impressive drug ever invented in medical history.

Widespread effects

At least 200 human genes contain vitamin D-responsive elements, and many of those genes encode for proteins allowing or inhibiting growth and cell proliferation. Vitamin D is a critical element preventing or, in its

Vitamin D Blood Test

The test that measures your vitamin D level is the 25-hydroxyvitamin D blood test.

The results are described in either nanograms per millileter (ng/mL) or nanomoles per liter (nmol/L). The optimal range when measured in nanograms per millileter is 35-50 ng/mL. The optimal range when measured in nanomoles per liter is 87-125 nmol/L. (If you should ever need to convert one of these to the other, the conversion factor from ng/mL to nmol/L is 2.496.)

absence, allowing a cell to grow in an abnormal, cancerous fashion in response to damaging stimuli and DNA breakage. Vitamin D functions as an on-off switch for various cellular responses. This illustrates that, in addition to the more commonly known hormonal effects regulating the absorption and utilization of calcium, vitamin D has a host of other messaging functions controlling gene regulation within cells.

The studies above were further supported by a Cochrane meta-analysis of 18 independent randomized controlled trials of vitamin D supplementation that included 57,311 participants. The supplemental daily doses varied

between 300 IUs and 2000 IUs, but the results were clear—all-cause mortality was significantly reduced by vitamin D supplementation.⁴ Vitamin D supplementation can save lives.

Vitamin D insufficiency exacerbates autoimmune diseases and causes heart disease, strokes, immune system disorders, and osteoporosis (weak bones); it also causes sarcopenia (weak muscles), which further increases the risk of falls and fractures. People who complain of fatigue, aching muscles, and even bone pain are often misdiagnosed with fibromyalgia, chronic fatigue syndrome, Lyme disease, and even depression, and they are put on drugs. Almost never does a physician order a vitamin D blood test to learn the level of sufficiency. Since drugs are the typical physician's first option for treatment, it is not uncommon for me to see patients taking bisphosphonates for osteoporosis when all they actually needed to take was more vitamin D. Their vitamin D levels were not checked prior to starting the medications.

Prudent recommendations

For the last fifteen years, I have been telling people to track their blood levels of vitamin D and to take additional vitamin D supplements. My findings are that the recommended RDI of 400 IUs of vitamin D found in most multivitamins is insufficient to assure vita-

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min D adequacy in the vast majority of people. The science corroborates this; we need greater amounts. The ability of vitamin D supplements to reduce the risk of bone fractures and cancers seen in medical research studies depends on doses significantly higher than the standard RDI dose of 400 IU.⁵ Most people need to take more than 1000 IUs of supplemental vitamin D to achieve adequate blood levels and to get substantial protection against life-threatening diseases.

It is neither difficult nor expensive to get the vitamin D supplementation you need. For example, a per-

son taking my Gentle Care Formula (multi) and OsteoSun (both available from DrFuhrman.com) in the recommended dosages gets 1600 IUs of vitamin D each day. After at least three months of supplementation, I recommend that you get a blood test (25-hydroxyvitamin D) to confirm that an adequate level of vitamin D has been reached. My recommendations are consistent with the recent position from the Food and Nutrition Board of the National Institute of Medicine, which has recognized that more vitamin D is needed by many people. □

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How Much Vitamin D Is Too Much?

The Food and Nutrition Board recommends that you take no more than 2000 IUs of vitamin D daily.

By Joel Fuhrman, M.D.

With many vitamin D experts advocating 4000-5000 IUs of vitamin D a day, I still think it wise to be more cautious at the present time. My advice is in direct contrast to that of the Vitamin D Council. This non-profit organization is headed by John Cannell, M.D., a paid consultant of the Diasorin company that makes a vitamin D blood test, and funded by BioTech Pharmacol, a drug company that manufactures vitamin D.

The Vitamin D Council recommends 5000 IUs of vitamin D daily, and they claim that dosages up to 10,000 IUs are safe. They also contend that ideal blood levels are between 50 and 80 ng/mL, not the 35-50 ng/mL range that I recommend.

There have not yet been enough studies performed to guarantee that taking a daily dose of 3000-10,000 IUs from vitamin D supplements long-term is safe and more effective at enhancing life span than taking lower dosages. The small number of studies looking at these dosages are not adequate to rule out the possibility of harmful effects. I

think the information from the Vitamin D Council is biased, and I caution people not to listen to their advice. At this point in the history of vitamin D science, supplementation should be given in the 1000-2000 range or something near to it, not the 5000-10,000 range. Additional vitamin D can be given if blood tests warrant it.

The Food and Nutrition Board of the Institute of Medicine recommends that you avoid supplementation greater than 2000 IUs of vitamin D daily. It is uncommon for a person to need more than 2000 IUs of vitamin D to reach adequate levels on their blood tests, but some individuals may.

Safety first

Increasing supplemental intake above 2000 IUs a day should be done only with blood test monitoring and care so as not to push blood levels too high. High levels of vitamin D may exacerbate kidney stones and other calcifications in the soft tissues of the body. There is some evidence to suggest that an excessive amount of vita-

min D and calcium can promote calcifications in the aging brain.⁶ Vitamin D toxicity induces abnormally high serum calcium levels (hypercalcemia), kidney stones, and calcification of organs such as the heart and kidneys if untreated over a long period of time. When the Food and Nutrition Board established the tolerable upper intake level (UL) for vitamin D, published studies that adequately documented the lowest intake levels of vitamin D that induced hypercalcemia were very limited, but because the consequences of hypercalcemia are severe, the Food and Nutrition Board established the previously mentioned UL recommendation of 2000 IU/day (50 mcg/day) for children and adults.

I agree with this recommendation. It makes sense to be cautious until more studies are done. While there is evidence that 2000-10,000 IUs of vitamin D daily is safe for most people, it seems prudent to keep the recommendations for most people under 2000, especially since

*(See **How much is too much?** on p. 4.)*

How much is too much?

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blood tests indicate that this is sufficient for most individuals. Taking more than 2000 is certainly indicated and safe if the retested blood levels are still insufficient at this dose.

Certain medical conditions can increase the risk of hypercalcemia in response to vitamin D, including primary hyperparathyroidism, sarcoidosis, tuberculosis, and lymphoma. People with these conditions may develop hypercalcemia in response to any increase in vitamin D and should consult a qualified health care provider regarding any increase in vitamin D intake.

While there may be room for some debate when it comes to how

much vitamin D is too much, there little or no debate when it comes to vitamin A. I have been telling people to avoid vitamin A supplements for more than ten years. During that time, more and more evidence has accumulated about the dangers of vitamin A. Now we know that ingesting vitamin A from supplements or cod liver oil not only can cause calcium loss, it also can block vitamin D activity in the body and exacerbate vitamin D deficiency. The benefits of vitamin D in a multivitamin can be offset if the multivitamin contains vitamin A. We know that vitamin A supplements can cause osteoporosis, but recent research illustrates an

even more ominous issue—with the exception of people who are vitamin A deficient because they are starving (in a poor third world country, for example), vitamin A supplements are toxic, increasing the likelihood of dying younger by about 16 percent.⁷ □

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Vitamin D Supplements and Kidney Stones

By Joel Fuhrman, M.D.

It is sometimes claimed that taking vitamin D supplements increases the risk of developing kidney stones. There might be a slight increase of risk, but only in people on modern high-protein, low-nutrient, American-style diets. The reason concern comes up is because the Women's Health Initiative found the relative risk for people taking 400 IUs of vitamin D and 1000 mg of calcium daily was 17 percent higher than in the placebo group.⁸ However, the participants already had an average baseline calcium intake over 1000 mgs, so the added supplements pushed them into an excessive range of calcium intake. Other vitamin D and calcium trials did not show such a link to kidney stones. It may be the case that taking too much calcium caused the kidney stones. Likewise, people who consume few or no vegetables, but drink soda and eat lots of animal products and highly refined processed foods, are already at high-risk of developing kidney stones.

The largest study that looked at the risk of kidney stones with vitamin D came out of Harvard. It also was a more carefully designed study. They studied 45,616 men over 14 years for a total of 477,000 person-years of follow-up. They found no increased risk of kidney stones with vitamin D intake or with calcium intake.⁹ They found a link between higher animal protein intake and increased body weight and a link between vitamin C supplements and more stones. But they found protection against kidney stones with a diet with more potassium (46 percent lower relative risk), magnesium (29 percent lower relative risk), and high fluid intake (29 percent lower relative risk). Similar findings occurred when the results for women were published a year later. These larger and more carefully performed studies showed that kidney stones are caused not by increased vitamin D and calcium but by the consumption of animal products, sugar, and harmful nutritional habits.

It may turn out to be the case that excess calcium and vitamin D intake will result in a higher relative risk for kidney stones for people on a very unhealthful version of the modern American diet (low in potassium and magnesium and high in refined carbohydrates, soft drinks, and foods that leave a high acid residue). When you eat such a very unhealthful diet, you may lower your risk of kidney stones by remaining vitamin D deficient, but then you raise your risk of dying from many other diseases even more. The best thing to do to prevent kidney stones is to eat a healthful diet that is naturally low in sodium, rich in minerals, and naturally high in water content. A plant-based, high-nutrient diet naturally keeps your urine alkaline, inhibiting stone formation, too. □

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Sunshine vs. Supplements

What is the safest and best way to ensure that you maintain vitamin D sufficiency?

By Joel Fuhrman, M.D.

Some people discourage (and even oppose) the taking of supplemental vitamin D and advocate getting more sunshine. They think that exposing your skin to sunshine is the only appropriate way to get the vitamin D you need and claim that “supplements are toxic.” For these “naturalists,” sun exposure is safe and supplements are not. This is not just bad advice; it is dangerous. People who follow it may die unnecessarily from cancer.

A fact that cannot be denied is that since most Americans work full-time in indoor jobs in northern climates, they are going to be vitamin D deficient unless they take supplements. Increasing vitamin D levels using supplements has been shown in multiple studies, including the Cochrane meta-analysis noted in the previous article, not only to be safe, but to extend life span and lower the risk of death from both multiple cancers and heart disease. To date, the interventional studies showing dramatic health benefits associated with increased blood levels of vitamin D have used supplementation (in reasonable dosages), not increased ultraviolet (UV) exposure. Vitamin D supplementation has a track record of more than 50 years of safety and benefit. Advocating against vitamin D supplementation because of distorted and unsubstantiated fears is even more reckless than advocating in favor of huge dosages of vitamin D.

Tragic cases

I routinely see people with medical difficulties and severe deficiencies who followed the “sunshine is best” advice. Not a month goes by that I do

*Safely getting
enough vitamin D
from sunshine is
virtually impossible.*

not see a raw-food vegan or natural hygienist in my office who has some troubling health condition that developed because of severe and long-standing vitamin D deficiency. Often a blood test shows that levels have fallen so low that no vitamin D is detectable (below 5 ng/mL), a situation that creates a host of medical problems and increases cancer risks. Unfortunately, the symptoms of vitamin D deficiency, such as fatigue and muscle complaints, do not develop until years after significant vitamin D deficiency has been present. Do not wait until severe deficiency develops, which it will in the vast majority of people who don't take supplements, no matter how sunny it is where they live.

While we are on the subject of poor advice regarding appropriate supplementation, I frequently see vegans who have severe B₁₂ deficiency. You would like to think that in the 21st century everyone would know that taking B₁₂ supplements is vitally important for a healthful vegan diet. But when you ask people why they aren't taking it, the answer is that some vegan “expert” gave them a false sense of security that they would get enough from seaweeds or some other “natural” foods. This misguided nonsense still is promoted on raw-food websites. Once, I had a

famous raw foodist (author and radio personality) come to me semi-paralyzed and unable to walk unassisted, which I discovered was due to B₁₂ deficiency. When he recovered most of his balance and could walk again after using B₁₂ supplements, he announced on his radio show that he recovered from multiple sclerosis (MS) by using his raw-food diet.

I have seen many vegans and raw foodists in similar situations damaged by lack of supplements, some permanently so. I have reviewed the blood work of some who have died of these deficiencies. I am presently working with a patient (a longtime vegan natural food enthusiast) who lives in the northeast of the United States who has severe vitamin D deficiency (below 5 ng/mL) and additional test results and signs suggestive of cancer. With all of her reading and attending health conferences year after year, she never heard that vitamin D supplements were that important. She thought sun exposure on her face and hands was sufficient.

Skin cancer and the sun

UV radiation is a well documented human carcinogen, indisputably linked to the current ongoing increases in the rate of skin cancer. Because the UV action spectra for DNA damage leading to skin cancer and for vitamin D photosynthesis are identical, the harmful and beneficial effects of UV irradiation are inseparable. With the volume of studies in recent years showing the dramatic beneficial effects of vitamin D supplements (not from increased sun exposure), some have interpreted this new evidence as a reason to recommend re-
(See **Sunshine vs. Supplements** on p. 6.)

Sunshine vs. Supplements

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moving all caution with regard to the sun and that everyone should utilize sunshine as the ticket to great health.

Obviously, exposure to sunshine and tanning beds place people at heightened risk of skin cancer; vitamin D supplements do not. There is no scientific evidence that vitamin D from the sun is better in some way or more effective at preventing bone disease, cancer, or heart disease than vitamin D supplements.

When you use sufficient sunshine exposure to guarantee optimal levels of vitamin D, you are placing yourself at unnecessary risk of skin cancer and wrinkling and aging your skin unnecessarily. And, regardless of this increased skin damage, sunshine is simply not available to our population of indoor workers living in northern latitudes to assure ade-

Trying to get enough vitamin D from sunshine increases your risk of skin cancer.

quate protection against a variety of the most common cancers.

The one thing vitamin D supplements cannot do that natural sunshine and bright light can is elevate mood and aid in the treatment of depression. Light coming in to the eyes (not on the skin) aids in the production and timing of the melatonin-serotonin axis, potentially aiding people prone to insomnia and depres-

sion. The bright light halts melatonin production during daylight hours, enabling people to make more of it at night when it is needed. It also encourages the secretion of serotonin during the day. Some people living in northern climates may benefit from a therapeutic light used in the morning, especially during the winter months when sunshine is in short supply.

Avoiding all cancers

Non-melanoma skin cancer linked to cumulative sun exposures is the most common malignancy in the U.S. Furthermore, the incidence of malignant melanoma that has been associated with intermittent high-intensity sun exposure has risen dramatically; it now affects one in 87 Americans.¹⁰

To prevent melanoma and non-melanoma skin cancer, many physicians and physician organizations urge sun avoidance when UVB radiation is most intense and suggest a combination of protective clothing and the use of sunscreens. However, the midday sun, when the damaging rays are most intense, is when vitamin D production is strongest. With the new findings to assure vitamin D production for general health above 35 mg/ml, more midday sunshine on larger areas of exposed skin will be necessary for adequate vitamin D production, increasing skin cancer risk. Worse, there still is no guarantee that your vitamin D levels will be adequate.

Inadequate sun exposure is often blamed for the high prevalence of low vitamin D status, but even generous exposure to the sun cannot ensure sufficiency. Research conducted by the Osteoporosis Clinical Research Program found that for many people, vitamin D levels can remain low despite abundant exposure to sunlight. They studied young Caucasian adults living in Hawaii

The Dangers of Tanning Beds

By Joel Fuhrman, M.D.

Tanning salon lamps produce over 90 percent UVA, not UVB. UVA penetrates the skin more deeply, so exposure to tanning lamps is even more skin cancer-causing than sun exposure. It also promotes the most dangerous, life-threatening types of skin cancer. UVA is more causative in the eventual development of melanoma than UVB, and it also plays a role in the development of basal cell carcinoma.

It may be true that tanning beds can increase blood levels of vitamin D, but the question is why would you want to age your skin and increase your risk of skin cancer to do so? Using vitamin D supplements and careful exposure to limited sunshine are always going to be more health-promoting than tanning to assure vitamin D adequacy. Basal cell carcinoma can

spread relatively rapidly and can necessitate significant surgical disfigurement for removal. It even can cause death.

The tanning industry does not target or appeal to the frail elderly or those with darker skin pigmentation who are at the greatest risk of vitamin D deficiency, but rather fair-skinned teenagers and young adults who are at highest risk of photo-damage. They fuel a controversy (that sun exposure/tanning is necessary to prevent breast and other cancers) ignited by economic interests and vanity when no controversy exists. The combination of supplements and incidental or protected sun exposure is the safest and most predictable way to assure vitamin D adequacy in our population. All tanning lamps are required to carry the warning that "repeated exposure may cause skin cancer." □

who averaged 29 hours per week of sun exposure and found 51 percent of this population had vitamin D levels lower than 30 ng/ml.¹¹ There is a wide variability in people's ability to convert sun exposure into vitamin D. People with darker skin have even less ability to make sufficient vitamin D from sun exposure. This study also was of interest because it found that the most vitamin D obtainable by virtually all-day exposure to the sun was 62 ng/mL, illustrating that those who advocate that we maintain levels of 50–100 ng/mL are promoting unnaturally high levels. Since 62 ng/mL is the highest "natural" dose of vitamin D you could obtain in a day, it seems prudent to use that value as an upper limit (and not 80 ng/mL) when prescribing vitamin D supplementation.

Overall lifetime UVB exposure is the strongest causation factor in the etiology of squamous cell carcinoma and actinic keratosis, while intermittent UV exposure and sunburning appear to be more important causation factors in the etiology of melanoma and basal cell carcinoma. It is tragic that in the search for "natural" vitamin D some people will get so much sun exposure that they will need disfiguring facial surgeries, when vitamin D supplements could have met their needs easily and safely. Some sunshine enthusiasts (illogically) argue that many more people die of colon, breast, and prostate cancer that can be prevented by sun exposure, so we should not worry about the 10,000 deaths in the U.S. each year from sunshine-caused skin cancer. Of course, this is an irrelevant argument when we can protect against *all* of these cancers by combining vitamin D supplements with more judicious and careful sun exposure habits.

Our modern atmosphere, after significant ozone depletion, no longer supplies safe levels of sun-

Ozone depletion allows more damaging rays of the sun to reach us.

shine. We have changed the nature of sunshine with ozone-depleting pollution, and the result is more exposure to the damaging rays of the sun. The demonstrated link between dramatically higher occurrence of skin cancer and excessive exposure to UV radiation in Australia and New Zealand indicates the need for higher intakes of supplemental vitamin D even where the climates are hot and sunny all year, making it theoretically possible to derive adequate vitamin D from sunshine alone. The notion that we should rely on sunshine for our vitamin D needs is impractical, impossible for most people to achieve, and unsafe.

How much sun is safe?

If you do decide to tan with either the sun or a tanning lamp, be careful not to burn, and build up the melanin in your skin very gradually. The gradual and slow buildup of a tan to prevent any redness or burning is important to decrease the chance of developing melanoma. However, even gradual tanning increases wrinkling, aging of the skin, and squamous cell carcinoma. Consider how smooth and wrinkle-free your buttocks and other non-sun exposed areas of the body are. But whether you get sunshine or not, taking steps to ensure that you maintain adequate blood levels of vitamin D also will offer some protection against melanoma and skin cancer.¹²

Whether it is from a supplement, the sun, or a combination of the two,

having an adequate level of vitamin D is important for reducing the risk of all cancers, including cancers of the skin. Of course, a healthy high nutrient "nutritarian" diet can significantly reduce one's risk of all cancers, too, and that includes skin cancer. Green vegetables offer the most protection against skin cancer, whereas diets rich in animal fats pose the highest risk.¹³ But, when you combine a high-green diet with adequate vitamin D blood levels, you are truly practicing an anticancer lifestyle. Imagine all of the lives that could be saved if everyone just ate more greens and made sure their vitamin D levels were adequate.

I advise limited sun exposure, asking people to use a non-chemical, non-nano-technology sunscreen or hat to cover their face and back of their neck and back of hands and wrists, areas that get heightened, repeated, and direct exposure when outdoors. Using a safe and non-chemical sunscreen to protect the nose, cheekbones, and areas around the eyes will keep you looking younger and prevent wrinkling (especially around the eyes) as you age. It also will prevent the areas that get most of your cumulative sun exposure from developing actinic keratosis and squamous cell carcinomas.

For most of us who work indoors and live in the northern half of the U.S., it would be impossible to go outside in shorts or a bathing suit two to three times a week during most of the year. If you can, and you live in a sunny warm climate, it is safe to get 10–20 minutes of sun exposure on your arms, legs, and trunk a few times a week, but wear sunscreen protection for your face and area described above. If you are in a hot and sunny climate and plan on being outside longer than 20 minutes, or if you are on vacation in a sunny climate or it is the summer
(See *Sunshine vs. Supplements* on p. 8.)

Sunshine vs. Supplements

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and you have to be outdoors exposing yourself to stronger and more prolonged sun, then the use of sunscreen on your full sun-exposed skin would be appropriate to reduce the potential for sun damage.

Remember that people with fair complexions and lifestyles that could be associated with the possibility of getting repetitive sunburns have no safe limit, and they should be very careful to avoid even 20 minutes of unprotected midday sun, as it could cause some burning and damage. The amount of safe sunshine is extremely variable from person to person, so erring on the side of caution is always advisable.

Sunscreens and skin cancer

Sunscreen use has been shown to reduce the risk of squamous cell carcinoma and actinic keratosis, both linked to UVB, but because most chemical sunscreens do not adequately block UVA they do not protect against melanoma. Mechanical or mineral sunscreen ingredients (such as zinc oxide and titanium dioxide), not chemical sunscreens, protect from both UVA and UVB, and they are also much safer because no chemicals are absorbed into the body or bloodstream. The only disadvantage to the thicker, all-mineral-ingredient sunscreens is that they could leave a thin, translu-

cent, white film on your skin.

Enjoy the sun, but please be smart about it!

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Vitamin D Helps Beat Depression

By Joel Fuhrman, M.D.

A recently published study confirmed the value of vitamin D supplementation as an effective treatment for depression. In fact, the improvements exceeded the results typically obtained with antidepressant medications. This study is very important because, unlike many previous studies, it involved the use of a significant dose of vitamin D (average 4000 IU per day), it was double-blinded and placebo-controlled, and the patients were followed for a full year. Researchers found that not only did the depressive symptoms correlate with low blood levels of vitamin D, but that correcting the deficiency improved the depressive symptoms.¹⁴

In my practice, I use a combination of fish oil, vitamin D, light therapy, and a high-nutrient diet to reverse depression. The results we achieve are much more substantial than one could expect using traditional drug therapy.

Often, patients are referred to

me with a significant medical difficulty accompanied by depression. It can be unclear if the medical condition contributes to the depression. However, in most cases, a long history of depression preceded the development of the medical condition. Here is an illustrative case.

Case study in recovery

Julia Sneiderman came to my office in April 1997 suffering from depression, extreme fatigue, and a severe rash. The rash was scattered all over her body, but it was especially red and angry on her face. The rash was biopsied by a local dermatologist and found to be a form of lupus. Her blood tests confirmed anemia with an Hb (hemoglobin) of 10.4, a high ESR (sedimentation rate) of 100, and other markers consistent with systemic lupus erythematosus.

Using my protocol for autoimmune disease, Julia was put on a high-micronutrient diet, one teaspoon of fish oil a day, and enough

vitamin D to bring her 25-hydroxyvitamin D blood test to over 35 ng/mL (which in her case was about 2600 IU of vitamin D₃ per day).

Within two months, Julia was feeling much better, less fatigued, and certainly not depressed. Over the next four months, she regained her energy, and the rash on her face and body totally cleared. She became healthy again, her blood tests almost totally normalized, her ESR dropped almost to normal, and she was no longer anemic.

Now, more than a year later, Julia reports that not only is she well again—and loves her high-nutrient diet, but she says that for the first time in many years she feels what it is like to be optimistic and excited about life. Julia beat both depression and lupus simultaneously through optimal nutrition.

Reference

14. Jorde R, Sneve M, Figenschau Y, et al. Effects of vitamin D supplementation on symptoms of depression in overweight and obese subjects: randomized double blind trial. *J Intern Med* 2008;264(6):599-609.