Vitamin D Myths and Facts:

For the last 30 years or so, doctors (dermatologists in particular), health officials, beauty experts and many product companies have been demonizing the sun. They've told us to avoid it because without sunscreen, exposure to the sun's rays will damage skin and cause cancer. But this oversimplification distorts the facts. In the past few years, numerous studies have shown that optimizing your Vitamin D levels may actually help prevent as many as 16 different types of cancer including pancreatic, lung, breast, ovarian, prostate, and colon cancers. And the best way to optimize Vitamin D levels is through safe, smart and limited sunscreen-free exposure to the sun**.**

For hundreds of thousands of years, man has lived with the sun: Our ancestors were outdoors far more often than indoors. We developed a dependence on sunshine for health and life, so the idea that sunlight is dangerous does not make sense. How could we have evolved and survived as a species, if we were that vulnerable to something humans have been constantly exposed to for their entire existence? Is it possible that our bodies are made in such a way that the sun is really a lethal enemy? Not in my opinion. Like all living things, we need sunshine, and it feels good for a reason. Much as plants harness the sun's rays through photosynthesis, our bodies use sunlight to help the skin produce the Vitamin D it needs to build bones, quell inflammation, bolster the immune system and protect against cancer (including skin cancer).

"Let the sun shine in"
Western medicine has made a practice of telling us to abstain from things that are bad for us in extreme quantities, when in fact those same things: fat, salt, and sunshine for example, are very good for us when consumed wisely and in moderation. In the case of sunshine, our UV paranoia is contributing to a silent epidemic: Vitamin D deficiency. It's silent because most people don't know they are deficient.

And it's deadly, because this deficiency can lead to cancer and a multitude of other diseases. But we've demonized the sun and been brainwashed into believing that even small amounts will harm us. We are told to slather on sunscreen whenever we are in the sun, which blocks Vitamin D production and exacerbates the Vitamin D deficiency induced by our modern, indoor lives.

Studies show that as many as three out of four Americans suffer from Vitamin D deficiency. A study published in 2009 in the Archives of Internal Medicine (a leading scientific journal), found that 70% of Caucasians, 90% of Hispanics and 97% of African Americans in the US have insufficient blood levels of Vitamin D. Indeed, it's thought to be the most common medical condition in the world, affecting over one billion people and we now have research showing just how essential Vitamin D is to health.

U.S. and Norwegian researchers have found that people who live in higher latitudes are more prone to Vitamin D deficiency and more prone to developing common cancers and dying of them. It's now thought that this is due in part to the body's inability to make enough activated Vitamin D to help regulate cell growth and to keep cell growth in check. Independent scientific research has shown that whether you live in a sunny or not-so-sunny climate, exposure to the sun and its UVB radiation will increase your production of Vitamin D and help lower the risk of a host of debilitating and fatal diseases – including many cancers, heart disease, high blood pressure, Type I diabetes, multiple sclerosis, and depression.

And now the experts are concerned that we're passing an epidemic of Vitamin D deficiency down to a new generation. Studies have shown that Vitamin D deficiency may imprint on an infant for the rest of his/her life. Infants that are deficient at birth can remain Vitamin D deficient for the first several months after birth, which may put them at risk of developing many chronic diseases much later in life.

What is Vitamin D and how much do you need?

Although called a vitamin, it is not. Vitamin D is in a class by itself, behaving more like a hormone. It is made in the skin, gets into your bloodstream and then goes into the liver and the kidney where it becomes activated as a key steroid hormone called Calcitriol. It then goes to the intestines, bones and other tissues, effecting metabolic pathways and the expression of myriad genes. Vitamin D's active form can interact with almost every cell in the body directly or indirectly, targeting up to two thousand genes, or about six percent of the human genome. It is necessary for numerous cellular functions, and when the body does not have what it needs to function optimally, it follows that we experience a decline in health and put ourselves at risk of disease. We now know that almost every cell and tissue in our body has Vitamin D receptors, which raises the question: Why would those receptors be there if they didn't have a function?

Our Vitamin D needs vary with age, body weight, percent of body fat, latitude, skin coloration, season of the year, use of sun block, individual reactions to sun exposure, and our overall health.

As a general rule, older people need more Vitamin D than younger people, large people need more that small people, fat people need more than skinny people, northern people need more than southern people, dark-skinned people need more than fair skinned people, winter people need more than summer people, sun-phobes need more than sun worshipers, and ill people may need more than well people.

The best way to determine whether or not you are deficient is to have your Vitamin D blood levels measured and replenish accordingly.

Top Ten Tips for Healthy Sun Exposure and Optimizing your Vitamin D Levels

1. Have a healthy respect for the sun.
It is powerful medicine with potentially dangerous side effects on your skin. Treat it like medication, using the lowest dose necessary, but don't avoid it completely. Never fall asleep in the sun without protection.

2. Always avoid sunburn.
It is sunburn, not healthy sun exposure that causes problems. Repeated sunburns, especially in children and very fair-skinned people, have been linked to melanoma. Whereas there is no credible scientific evidence that regular, moderate sun exposure causes melanoma or other skin cancers.

3. Prepare your skin and build up tolerance gradually.
Start early in the year (spring), or early in the morning before the sun is strongest and slowly build up the amount of time you spend in the sun.

4. Get 15-30 minutes of unprotected sun exposure 2-4 times a week.
Each of us has different needs for unprotected sun exposure to maintain adequate levels of Vitamin D. Depending on your age, what type of skin you have, where you live and what time of the day and year it is, your need will vary. The farther you live from the equator, the more exposure to the sun you need in order to generate Vitamin D. For instance, a fair skinned person, sitting on a New York beach in June, in the middle of the day, for about 10-15 minutes (enough to cause a light pinkness 24 hours after), is producing the equivalent of 15,000-20,000 IU's of Vitamin D. But the same person living further north in the U.K, or Canada would need 20-30 minutes to get that light pinkness, which is all one needs. Also, people with dark skin pigmentation may need 20-30 times as much exposure to sunlight as fair-skinned people, to generate the same amount of Vitamin D. For more specifics, I recommend the tables in The Vitamin D Solution by Dr Michael Holick.

5. Get frequent, short exposures.
Regular short exposures have been found to be much more effective and safer than intermittent long ones. Note that you cannot generate Vitamin D when sitting behind a glass window, because the UVB rays necessary for Vitamin D production are absorbed by glass.

6. After your 15-30 minutes of sun-block free time in the sun, you must protect yourself.
If you're going to be out in the sun for longer periods, wear a hat to protect your face and light colored clothing that blocks the sun and keeps you cool. When you do apply sunscreen, use one with fewer chemicals. Check out the Environmental Working Group's list of safer sunscreens. Remember that even weak sunscreens block the ability of your skin to manufacture Vitamin D, so once you have applied it, you will not be making Vitamin D.

7. Boost your "internal sunscreen" by consuming anti-oxidants and beneficial fats.
These strengthen skin cells, helping to protect them from sun damage. Eating lots of vegetables and fruits such as blueberries, raspberries, goji berries and pomegranates and supplementing with green powdered mixes and fish oils are great options when going into the sun.

8. Have your Vitamin D blood levels checked regularly.
The correct blood test is 25OH vit D or 25 Hydroxy Vitamin D test. Be aware, however, that current "normal" range for Vitamin D is 20 to 55 ng/ml. This is much too low!!! Those levels may be fine if you want to prevent rickets or osteomalacia, but they are not adequate for optimal health. The ideal range for optimal health is 50-80 ng/ml.

9. Don't rely on food alone for your Vitamin D needs.
It is almost impossible to get your Vitamin D needs met by food alone. Fatty wild fish (not farmed), like salmon and mackerel are the best food sources, but you would have to eat huge quantities of them daily to get anywhere near what your body needs. Although fortified milk and orange juice do contain Vitamin D, you would have to drink at least 10 glasses of each daily and I don't recommend doing that.

10. Take Vitamin D3 supplements if necessary.
In the winter or if you don't get enough healthy sun exposure or if your blood levels are low, make sure you supplement with at least 2,000 IU's a day of Vitamin D3. Although I recommend moderate sunbathing, Vitamin D supplements provide the same benefits as sunshine (in terms of Vitamin D needs). But, if taken in too large a dose, they can cause Vitamin D toxicity, whereas sun exposure does not. It is impossible to generate too much Vitamin D in your body from the sun: Your body will self-regulate and only generate what it needs, which just reaffirms to me that we should get our Vitamin D from sensible sun exposure. Here are specific guidelines for replenishing Vitamin D.

Although irresponsible sunbathing is unquestionably harmful and precautions need to be taken, regular, moderate, unprotected sun exposure is essential for good health. It is free, easy to get and good for you when used intelligently. It is the only reliable way to generate Vitamin D in your own body, which we now know to be an essential ingredient for optimizing health and preventing disease.

Kind Regards

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