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Harmful Vitamin D Deficiency Common Around World

By Meredith Hegg
Washington, D.C.
20 July 2009

While scientists have known for decades that [vitamin D](#) deficiency leads to bone diseases like rickets, more recently they have found connections between low vitamin D levels and a wide range of other illnesses, including cancer, autoimmune disorders and cardiovascular disorders.

The human body creates vitamin D through exposure to sunlight, and yet some of the sunniest parts of the world have the highest rates of vitamin D deficiency. Several factors have contributed to dangerously low vitamin D blood levels among people in the Middle East, Africa and Asia.

Vitamin D necessary for bone strength

Healthy bones depend on vitamin D, says Ambrish Mithal of the [Indian Society for Bone and Mineral Research](#).

"Vitamin D is what absorbs calcium into our body and helps it reach the bone. Vitamin D deficiency, therefore, results in weak bones and bones that are soft, that will bend and break."

Getting enough vitamin D should be relatively simple.

"The major source of vitamin D is sunshine," Mithal says. "We make vitamin D under the influence of UV rays that we get in the sunlight. We make it in our skin."

Vitamin D deficiency common, even in sunny places

But some of the world's sunniest regions have the highest rates of vitamin D deficiency. That's the finding of a recent [report](#) from the [International Osteoporosis Foundation](#), which reviewed research done over the past three decades. Mithal is a coauthor of that report.



Even in sunny regions of the world, people can be severely

"Vitamin D deficiency is a global phenomenon. But certain parts of the world, they're prone to severe vitamin D deficiency - for example, South Asia, like India, or Middle East, like Lebanon. There have been studies from these areas which have shown that almost 80 percent, or maybe even more, of the urban population is significantly vitamin D deficient."

He points to several factors to explain why people who live in sunny areas still may not get

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Editorials	deficient in vitamin D, contributing to serious health problems	sufficient vitamin D.
Web Services	"Those who live closer to the equator are actually less prone to vitamin D deficiency, but at times this, can be overshadowed by other factors like skin pigmentation, less outdoor activity and more skin cover with clothes," Mithal says.	
Podcasts	Vitamin D expert Michael Holick, of the Boston University Medical Center, explains why people with darker skin generally have lower levels of the nutrient than lighter-skinned people, even in the same country.	
RSS News Feeds	"The major reason is that their melanin, which protects their skin from excessive exposure to sunlight, also prevents them from making vitamin D," he says. "We showed that African-Americans need to be exposed three to five times longer to sunlight to be able to make the same amount as a white person."	
Mobile	Another coauthor of the vitamin D review, Ghada El-Hajj Fuleihan, describes how people in the Middle East can spend time outdoors without absorbing enough vitamin D.	
Webcasts	<p>"In these, the Middle Eastern countries, people tend to follow a very much more conservative clothing style, in a large proportion of subjects. And the other thing is that with modernization, women who do not follow the conservative clothing style use sunblock. Sunblock with sun protection factor as low as six and eight can completely block the ability of the skin to make vitamin D."</p> 	
Subscribe E-mail Newsletter	El-Hajj Fuleihan, of the American University of Beirut Medical Center, says this may explain why women in general have lower vitamin D levels.	Vitamin D helps the body absorb calcium and keep bones healthy
Deficiency could be dangerous		
There is new concern about vitamin D deficiency because, as Michael Holick explains, recent medical discoveries show it may be much more dangerous than previously thought.		
"What we haven't appreciated until about the past decade is that vitamin D seems to be important for reducing risk of many chronic illnesses that span anywhere from autoimmune diseases like type 1 diabetes, multiple sclerosis, rheumatoid arthritis, to infectious diseases like tuberculosis and influenza, reduces risk of heart attack, stroke and most importantly, reduces risk of deadly cancers."		
Ways to get more vitamin D		
People can get more of the nutrient in their diet. In the United States and other countries, some foods are fortified with vitamin D. But Holick says that's generally not enough.		
"Children probably need a thousand units of vitamin D a day. Teenagers and adults need two thousand units of vitamin D a day to satisfy their requirement... You cannot get an adequate amount of vitamin D to satisfy your body's		



Researchers recommend spending a little more time in the sun to get an adequate supply of vitamin D

requirement from your diet."

So, he and other experts like Ghada El-Hajj Fuleihan, now recommend spending a little more time in the sun.

"We are fully aware of the risk of skin cancer with sun exposure but suggest that there may be a happy compromise and that maybe the first 10 minutes or so three times a week... let the skin get some ability to make vitamin D, and then put the sunblock on."

In addition, she says, those who spend their days indoors should take a vitamin D supplement.

Although the [World Health Organization](#) has said that most people get enough vitamin D through sun exposure and diet, in light of the new research, it has commissioned its own report and may issue new recommendations.

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1. Thank you

Dear Recently, I have got my baby. Fortunately, I have read this article and I take my baby to bath sunlight everyday. In my country, the newborn have to be in dark rooms until they are 3 months and taking a newborn go to bath sunlight is a crazy action. I would like to change this situation in my country. Thank you for your article.

Submitted by: Hung (Vietnam)
07-21-2009 - 12:07:53

2. 25(OH)D testing.

Grassrootshealth D Action are a charity run by vitamin d scientists trying to promote awareness of the link between lower vitamin d status and chronic disease incidence. As part of a trial they are conducting you can have your 25(OH)D level checked at cost price with a simple postal test with the results being available by email in just a few days. Staying within the range 50~60ng not only allows human breast milk to flow replete with D3 but also is associated with peak muscle performance and least MS, Heart disease, Cancer Diabetes obesity incidence. We know from studies like Demonstration of UVB-induced synthesis of 1 α ,25-dihydroxyvitamin D3 (calcitriol) in human skin That human skin is an organ able to make the active seco steroid Calcitriol completely from the UVB action turning cholesterol to pre vitamin d through to the final active hormone. It seems to me somewhat presumptuous to suggest you know better how human evolution should have progressed and that the naturally

Submitted by: Ted Hutchinson (UK)
07-21-2009 - 09:19:54

3. bad life stlye contribute to vitamin D deficiency

In some countries like Saudi arabia, inspite of abundant sunshine, I think vitamin D deficiency is prevalent especially among women. May be the social factors mentioned above is the main reason, women follow conservative style but the bad life style concerning sleeping may contribute alot. Most women sleep at morning and afternoon. When they get up and feel ready to go outdoors almost evening begins. I think people here need to change their habits in order to be healthy.

Submitted by: Umayma Bakri (Sudan-resident at Saudi arabia)
07-21-2009 - 06:27:14

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