

## Doctor preaches wonder cure: Vitamin D



Elizabeth Flores, Star Tribune

Dr. Greg Plotnikoff, medical director of Abbott's Center for Integrative Medicine, is an advocate on the health benefits of Vitamin D. It reduces pain. It reduces illness. There is almost nothing that vitamin D can't help, and that's Dr. Greg Plotnikoff's point.

By JOSEPHINE MARCOTTY, Star Tribune

The young man was back in the hospital again. Flare-ups from his sickle-cell disease have put him there repeatedly over the years, and he's only 25.

This time, though, something was different. Sunlight streamed across his bed as Dr. Greg Plotnikoff held his hand and gently asked if the new pills were working. "I'm feeling stronger," the patient said, nodding eagerly.

It wasn't the newest prescription medicine that brightened the young African immigrant's eyes with hope. It was what Plotnikoff feels is the single most cost-effective medical intervention in America today: Good old-fashioned vitamin D.

There is an epidemic of vitamin D deficiency, especially among the obese, the elderly and dark-skinned people living in the sun-deprived north. In fact, most Minnesotans are likely deficient in winter, unless they take supplements, because they live too far north to get enough vitamin D from the sun.

Deficiencies have been linked to 17 kinds of cancer, autoimmune diseases, chronic pain, heart disease, depression and ADHD. In fact, there is almost nothing that vitamin D can't help, and that's Plotnikoff's point. It reduces death. It reduces pain. It reduces illness. And it's free from the sun.

## **A new approach**

Plotnikoff, 47, admits he sees every patient through the prism of vitamin D. In August, for example, he met with Kari Helling and her doctors. She was in the hospital for an inflammatory bowel disease — also linked to vitamin D deficiency. He suggested they test her level. When it came back low, he advised prescribing 4,000 International Units per day. (The standard amount that a person should have every day is 400 IU's.)

A note of caution: It is extremely difficult, but not impossible, to take too much vitamin D, experts say. Adults would have to consume 2,000 units or more a day for a long time. But too much could trigger too much calcium absorption, causing kidney stones. Far more likely is the possibility of deficiency.

"The majority of physicians still believe that in the 21st century, Americans could not possibly be vitamin D deficient," Plotnikoff said. "We are an advanced society. No one could be deficient." Plotnikoff looks for every opportunity to spread his message. He gives talks about vitamin D at community meetings, medical conferences, on TV and the radio.

His own eureka moment with vitamin D occurred in the late 1990s when he was a primary care doctor at the University of Minnesota's community clinic. His patients were mostly poor, many immigrants with darker skin from countries where the sun shines a lot more than it does in Minnesota.

"I was frustrated by their chronic pain, goofy chronic pain that was disabling people," he said. He would prescribe treatments that didn't work very well or that his patients couldn't afford.

"To be a good doctor you have to go beyond medical training and find the answer," said Plotnikoff. He came across an article that said that immigrant women were frequently vitamin D deficient. He measured it in 150 of his own patients who complained of pain.

"I was shocked," Plotnikoff said. "Ninety-three percent were vitamin D deficient. Five people had unmeasurable levels. One woman came to him with six pages of complaints — everything from "squishy" headaches to throbbing gums. Six months after he prescribed supplements "they had all cleared," he said. "She had her life back."

He wrote up his findings for a small medical journal and left for Japan. His article, published in 2003 in the Mayo Clinic Proceedings, caused a bit of a stir in medical circles. It was the first in the United States to connect vitamin D deficiency to chronic pain in a wide range of patients. In the four years he spent in Japan, he received e-mails about it from around the world every week.

By the time he returned last year, vitamin D had become the "it" vitamin. Study after study connected deficiencies to everything from multiple sclerosis and diabetes to cancer and heart disease. Last month, the American Medical Association urged the Food and Drug Administration to up its dietary recommendation of 400 International Units per day.

### **Nutrient from the sun**

For decades, Vitamin D was valued primarily for its ability to help the body absorb calcium for strong bones — that's why it was added to milk. But it's now understood that its job is much bigger.

It regulates hundreds of genes, especially those associated with cell growth. That's why, researchers believe, it reduces cancer, slows cell death and regulates immune cells. Almost every living thing on Earth depends on it.

But unlike other vitamins that come from food, vitamin D comes primarily from the sun. The sun's rays are absorbed by melanin in the skin. People with darker skin are less able to absorb vitamin D, so when Africans move north, for example, they are at far greater risk of deficiency. Plotnikoff's patient with sickle-cell had almost no measurable levels of vitamin D in his blood.

The vitamin D epidemic has grown largely because we now spend far more time inside than outside. When we do go outside, we often cover up or use sunscreen. But this epidemic has a cheap and very simple solution — awareness, for starters. Plotnikoff urges "safe sunning," which means no burning. In winter, when no one who lives in Minnesota can get enough from the sun, most everyone should take supplements. To be sure you're getting enough, he said, ask your doctor to do a blood test.

The payoff, he believes, is much bigger than ending an epidemic. It's a bridge to a different medical philosophy altogether, one that embraces health, not disease, and the patient, not the treatment. "This is what gets me going," he said. "It does not require physician expertise. True primary care is self care."



**ELL 5 Reading: "Doctor Preaches Wonder Cure: Vitamin D"**

**Vocabulary and Comprehension Exercises**

**Part One:** Match the vocabulary word on the left with its definition on the right.

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|--------------------------|---|
| ___ 1. advocate (n)      | a. to say what medicine or treatment a sick person should have  |
| ___ 2. intervention (n)  | b. someone who strongly supports a particular way of doing things   |
| ___ 3. deficiency (n)    | c. to control an activity or process  |
| ___ 4. eureka moment (n) | d. the act of doing something to prevent something bad from happening or improving a situation or condition |
| ___ 5. chronic (adj)     | e. done in a way that shows great desire or enthusiasm for something  |
| ___ 6. prescribe (v)     | f. a time when you understand something more clearly than ever before                                       |
| ___ 7. eagerly (adv)     | g. knowledge or understanding of a particular subject or situation  |
| ___ 8. supplement (n)    | h. a lack of something that is needed   |
| ___ 9. regulate (v)      | i. something that is added to something else to improve it  |
| ___ 10. awareness (n)    | j. a problem, difficulty or type of behavior that you cannot get rid of or that keeps happening again       |

**Part Two:** Answer the questions below using complete sentences. (Some answers have been started for you.)

**1.** What does "being healthy" mean to you?

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**2.** What are two things you do (or don't do) to take good care of your health?

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**3.** What is one positive aspect of American life which impacts people's health?

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4. What is one negative aspect of American life which impacts people's health?

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5. Why are so many people in the northern regions of the world **deficient** of vitamin D in the winter?

*Many people in northern regions are deficient of vitamin D because* \_\_\_\_\_

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6. How did Dr. Plotnikoff discover the "magic" of vitamin D.

*He discovered the magic of vitamin D when* \_\_\_\_\_

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7. For a long time, vitamin D was considered useful for what main purpose?

*The main purpose for vitamin D was to* \_\_\_\_\_

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8. What is the primary **source** of vitamin D?

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9. Why has the vitamin D **deficiency epidemic** grown so much?

*This epidemic has grown because* \_\_\_\_\_

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10. What is Dr. Plotnikoff's **philosophy** (strong idea/opinion) regarding taking care of our health?

*Dr. Plotnikoff's philosophy is that* \_\_\_\_\_

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