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Chronic Pain: Does Vitamin D Help?

Not getting enough vitamin D in your system may be linked to chronic pain.

Over the past 10 years, several researchers have found an association between extremely low vitamin D levels and chronic, general pain that doesn't respond to treatment.

Many Americans are running low on vitamin D. A study published in the *Archives of Internal Medicine* in 2009 showed that vitamin D levels have plummeted among all U.S. ages, races, and ethnic groups over the past two decades.

But does not having enough vitamin D cause pain? That's not yet clear. But here's what you need to know about vitamin D and chronic pain.

Boosting Vitamin D, Easing Pain

Greg Plotnikoff, MD, senior consultant with the Allina Center for Health Care Innovations in Minnesota, still remembers the woman in her 40s who told him that he was the 30th doctor she'd seen.

"Twelve of them had told her she was crazy," says Plotnikoff, formerly an associate professor of internal medicine and pediatrics at the University of Minnesota Medical School. "She had weakness, achiness, fatigue – three pages worth of symptoms. Doctors had offered her antidepressants, and seizure medications and all kinds of things that didn't work. I checked her vitamin D levels – and they came back barely measurable."

After six months on an aggressive, high-dose prescription vitamin D replacement, the woman could cross off every symptom on her three-page list. "I knew I wasn't crazy!" Plotnikoff says she told him.

That's just one woman. Her case doesn't mean vitamin D will erase pain for everyone.

However, Plotnikoff published a study in 2003 on 150 people in Minneapolis who came to a community health clinic complaining of chronic pain. Virtually all of them – 93% - had extremely low vitamin D levels.

Vitamin D blood levels of 30-40 ng/mL are considered ideal. The average level in Plotnikoff's study was about 12, and some people had vitamin D levels so low they were undetectable.

"The group with the lowest levels of vitamin D were white women of childbearing age," Plotnikoff says. "Most of them were dismissed by their doctors as depressed or whiners. They attributed their pain to an inability to manage stress. But after we replenished their vitamin D, these people said, 'Woo hoo! I've got my life back!'"

Plotnikoff notes that vitamin D is a hormone. "Every tissue in our bodies has (vitamin) D receptors, including all bones, muscles, immune cells, and brain cells," he says.

And in March 2009, researchers at the Mayo Clinic published a study showing that patients with inadequate vitamin D levels who were taking narcotic pain drugs required nearly twice as much medication to control their pain as did patients with adequate D levels.

Jury Still Out

But other studies have shown no connection between vitamin D and chronic pain, and a research review published in January 2010 showed that the evidence on the subject is inconclusive.

"It would be nice if vitamin D worked for chronic pain. It would offer an inexpensive and simple treatment with known and probably limited adverse effects," Sebastian Straube, MD, PhD, tells WebMD in an email. Straube is a physician-scientist at Germany's University of Gottingen and led the research review, published in the Cochrane Library.

But it hasn't been proven that boosting your vitamin D level will erase your pain.

"Looking at all the available evidence, the link is not convincing," Straube says. "As far as treatment studies are concerned, we found a striking contrast in study outcome between randomized double blind trials that by virtue of their study design minimize bias, and other (non-double blind) studies that are more prone to bias. The latter largely do suggest a beneficial effect of vitamin D treatment; the former largely don't."

Plotnikoff says that there is no evidence from randomized controlled trials that replenishing vitamin D levels will cure chronic pain. "But it doesn't hurt to do it," he notes.

So, if you've got chronic pain, it can't hurt to ask your doctor to check your vitamin D levels. "I believe this is absolutely medically indicated, and it should be the standard of care for everyone with chronic, nonspecific musculoskeletal pain," Plotnikoff says.

"Considering that establishing the effectiveness (or lack thereof) of vitamin D in chronic painful conditions is a clinically important question, there is rather little high-quality evidence on this topic," Straube says. "At present, we do not think the evidence in this

area is of sufficient quality to guide clinical practice. There clearly is a need for more and better studies in the future.”

If you have severe vitamin D deficiency, any efforts to boost your D levels should be done by consulting with your doctor. Too much vitamin D can be dangerous and lead to an excess accumulation of calcium in your blood which can lead to kidney stones.

-Gina Shaw, WebMD

(FYI: Milk is a #1 source of Vitamin D because it is fortified with that vitamin. While you are consuming your milk, be aware that you are also building bones (calcium), helping your muscles build and repair, and satisfying your appetite. GO MILK! - Editor, M.A.H.)