

Mayo Clinic study suggests those who have chronic pain may need to assess vitamin D status

March 20 2009

Mayo Clinic research shows a correlation between inadequate vitamin D levels and the amount of narcotic medication taken by patients who have chronic pain. This correlation is an important finding as researchers discover new ways to treat chronic pain. According to the Centers for Disease Control and Prevention, chronic pain is the leading cause of disability in the United States. These patients often end up taking narcotic-type pain medication such as morphine, fentanyl or oxycodone.

This study found that [patients](#) who required narcotic [pain](#) medication, and who also had inadequate levels of [vitamin D](#), were taking much higher doses of [pain medication](#) — nearly twice as much — as those who had adequate levels. Similarly, these patients self-reported worse physical functioning and worse overall health perception. In addition, a correlation was noted between increasing [body mass index](#) (a measure of obesity) and decreasing levels of vitamin D. Study results were published in a recent edition of *Pain Medicine*.

"This is an important finding as we continue to investigate the causes of [chronic pain](#)," says Michael Turner, M.D., a physical medicine and rehabilitation physician at Mayo Clinic and lead author of the study.

"Vitamin D is known to promote both bone and muscle strength. Conversely, deficiency is an under-recognized source of diffuse pain and impaired neuromuscular functioning. By recognizing it, physicians can significantly improve their patients' pain, function and quality of life."

Researchers retrospectively studied 267 chronic pain patients admitted to the Mayo Comprehensive Pain Rehabilitation Center in Rochester from February to December 2006. Vitamin D levels at the time of admission were compared to other parameters such as the amount and duration of narcotic pain medication usage; self-reported levels of pain, emotional distress, physical functioning and health perception; and demographic information such as gender, age, diagnosis and body mass index.

Further research should document the effects of correcting deficient levels among these patients, researchers recommend.

This study has important implications for both chronic pain patients and physicians. "Though preliminary, these results suggest that patients who suffer from chronic, diffuse pain and are on narcotics should consider getting their vitamin D levels checked. Inadequate levels may play a role in creating or sustaining their pain," says Dr. Turner.

"Physicians who care for patients with chronic, diffuse pain that seems musculoskeletal — and involves many areas of tenderness to palpation — should strongly consider checking a vitamin D level," he says. "For example, many patients who have been labeled with fibromyalgia are, in fact, suffering from symptomatic vitamin D inadequacy. Vigilance is especially required when risk factors are present such as obesity, darker pigmented skin or limited exposure to sunlight."

Assessment and treatment are relatively simple and inexpensive. Levels can be assessed by a simple blood test (25-hydroxyvitamin D [25(OH)D]). Under the guidance of a physician, an appropriate repletion regimen can then be devised. Because it is a natural substance and not a drug, vitamin D is readily available and inexpensive.

In addition to the benefits of strong muscles and bones, emerging

research demonstrates that vitamin D plays important roles in the immune system, helps fight inflammation and helps fight certain types of cancer.

Source: Mayo Clinic ([news](#) : [web](#))

Citation: Mayo Clinic study suggests those who have chronic pain may need to assess vitamin D status (2009, March 20) retrieved 2 May 2024 from <https://medicalxpress.com/news/2009-03-mayo-clinic-chronic-pain-vitamin.html>

<p>This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.</p>
--