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The Body Dynamics Monthly Newsletter

Vitamin D May Play a Role in Your Pain Management

As healthcare providers at Body Dynamics, we commonly see patients with a long history of muscle, bone, or joint aches and pains. In many cases, there is no obvious cause for these pains, but muscle fatigue and aching still exist. Recent clinical research examining adult patients of all ages links inadequate concentrations of vitamin D with nonspecific muscle, bone, or joint pain, along with muscle weakness or fatigue, fibromyalgia syndrome, rheumatic disorders, osteoarthritis, migraines, diabetic neuropathy, immune disorders, and mood disturbances such as depression, chronic fatigue, and seasonal affective disorder.

WHY IS VITAMIN D IMPORTANT?

There are many vitamins that are essential for maintaining health, but vitamin D is different from most because it is the only vitamin that we make in our skin when exposed to sunlight. Vitamin D can be difficult to obtain from food since few foods other than fatty fish and fish liver oil naturally contain vitamin D. Once absorbed, the vitamin is then broken down by the liver and kidneys forming a chemical that works throughout the body in many tissues, including muscles and nerves. Along with aiding muscle and nerve tissue, vitamin D also helps your body absorb calcium from food, and is therefore essential for bone growth. In short, Vitamin D can help prevent both fractures associated with osteoporosis and muscle weakness and bone aches that accompany osteomalacia—or softening of bones. In patients with vitamin D deficiency, this particular dysfunction of bone metabolism is proposed to contribute to complaints of dull, persistent musculoskeletal aches.

HOW MUCH VITAMIN D DO WE NEED?

Since vitamin D helps build strong bones, it is important to get adequate amounts in your daily routine. Examine your diet, exposure to sunlight, and history of pain, and talk with your physician about testing for a suspected vitamin D inadequacy. Most clinical values are based on the level of deficient or normal; however, there is a grey area of insufficiency that is often overlooked. In the case of vitamin D, the total value of serum 25-hydroxyvitamin D is the value that is significant. Previously, patients with

serum levels < 20 ng/mL were considered deficient in vitamin D, and all those above 20 ng/mL were considered to have adequate levels. However, current research is showing a middle classification level deemed insufficient in vitamin D that had previously been overlooked—between 20 and 80 ng/mL. Therefore, it is important to talk with your physician about doing blood work to establish your baseline, with these current values in mind.

Following baseline testing, if a supplement is recommended, look for vitamin D supplements that are sold in two forms: D₂ and D₃. Most current research indicates that D₃ is the more effective, natural option for supplementation. Once a baseline serum value is obtained, the daily oral dose of supplemental vitamin D can be determined. In 1997, there was insufficient data to specify a Recommended Daily Allowance for vitamin D, so a conservative Adequate Intake value of 200 IU to 600 IU per day was developed. According to the most recent 2005 Dietary Guidelines for Americans, healthy children and adults of any age should consume no less than 1000 IU/day of vitamin D₃. A good multivitamin often provides 400 IU to 800 IU of vitamin D₃, so adding a supplement pill to this multivitamin would provide the extra vitamin D₃ to meet the new proposed guidelines. Moreover, the current proposed supplementation of vitamin D₃ for chronic pain patients is slightly higher. It includes a daily multivitamin and an additional 2000 IU vitamin D₃ supplement, bringing the total supplement intake to 2400 IU, or 2800 IU/day.

Once beginning vitamin D supplementation, the timeline for seeing changes is up to 9 months, according to recent studies, with careful monitoring by a physician. Such changes may include decreased or less frequent pain, using fewer pain pills for symptom control, improvement in mood, decreased fatigue, increased energy, and an overall feeling of well-being.

HOW CAN I INCREASE MY INTAKE WITHOUT SUPPLEMENTS?

Other ways of increasing your daily vitamin D uptake include allowing yourself limited, unpro-



We make Vitamin D in our skin when exposed to sunlight.

tected sun exposure and eating a nutrient-rich diet that includes foods such as fatty fish, egg yolks, fortified organic milk, soymilk, yogurt, and other dairy products. Check with your healthcare provider about adding vitamin D testing to the blood work at your next physical. If your results are below the new optimal value of > 80 ng/mL, discuss adding a supplement to your diet in addition to a daily multivitamin, specifically during these cold winter months spent indoors.

FOR MORE INFORMATION

More information is available at <http://Pain-Topics.org/VitaminD>, including papers for practitioners and patients that can be downloaded and printed free of charge. Ask the clinicians here at Body Dynamics if you have any additional questions or you think vitamin D insufficiency may apply to you.

SOURCES

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