

## Vitamin D & Pain

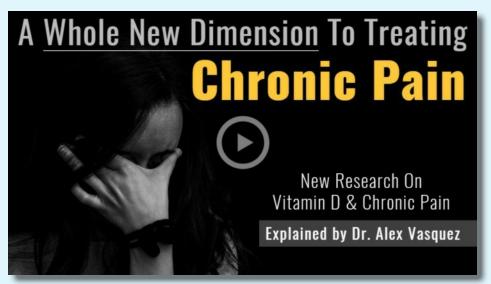
"Anyone with bone pain, muscle pain, fatigue, depression, frequent infections, falls, cognitive impairment, statin intolerance should be treated and tested to make sure optimal blood levels of vitamin D are present."

What nutrient deficiency set the stage for depression, infection and pain? If you said Vitamin D you are way ahead of the curve. You see vitamin D is a transcription factor and affects 3,000 genes or DNA docking sites.

I had forgotten that Vitamin D is a transcription factor for NF-kappa B which in turn affects hundreds of other genes. Also vitamin D has docking sites on cell membranes facilitating healthy intracellular transport. I did not realize that unless patients have 25 (hydroxy) vitamin D levels above 32 ng/ml, the levels of parathyroid hormone will not be sufficient to expel excess intracellular calcium.

Excess intracellular calcium acts as a secondary messaging system to increase inflammation. This is why people with vitamin D deficiencies are in an intracellular pro-inflammatory state.

WOW. This adds a whole new dimension to the treatment of migraine headaches, fibromyalgia, hypertension, myofascial trigger point pain,



even cancer. Dr. Vasquez has been updating his work on pain and the therapeutics we have at our fingertips.

Thousands of studies have been done since his published monograph on vitamin D in 2004. So much that he has assembled a 3 part series on Vitamin D. You can see a link on the right to the first one which is on PAIN.

Please take time to watch; but in the meantime, consider the subjective risk factors for vitamin D deficiency: dark skin, obesity, older age, malabsorption, Irritable Bowel Disease, sunlight deprivation, overprotection with the use of sunscreens, chronic use of

anticonvulsants or prednisone derivatives.

He makes a clear case that, "Anyone with bone pain, muscle pain, fatigue, depression, frequent infections, falls, cognitive impairment, statin intolerance should be treated and then tested to make sure optimal blood levels of vitamin D are present."

Remember we have shown in earlier Tuesday Minutes that the people dying of COVID-19 have one common variable; they are low in Vitamin D. Find the link and check out Dr. Vasquez's updates on pain.

He gives therapeutic assessment suggestions as well. Thanks for watching, I look forward to being with you again next Tuesday.