

Vitamin D deficiency in prediabetes

Vitamin D is an important hormone that not only regulates calcium but has many other beneficial actions. Theodore Friedman, M.D, Ph.D., Chairman of Medicine and Chief of Endocrinology, Molecular Medicine and Metabolism at Charles Drew University, is interested in the relationship between vitamin D and prediabetes based on a study that came out of Charles Drew University, that was published in *Archives of Internal Medicine*. In this study, the authors (Drs. David Martins, Keith Norris and colleagues) found that patients with low vitamin D levels had an increased rate of diabetes and other cardiovascular disease, including hypertension. The link between low vitamin D levels and diabetes was rather strong; and the lower the vitamin D level, the more likely the patient was to have diabetes. Black patients had a higher rate of low vitamin D levels and diabetes; Hispanic patients had low levels but not as low as black patients in terms of vitamin D levels; and Caucasian patients had the higher (but still low) levels of vitamin D. However, all groups of patients had low vitamin D levels. Based on this correlation, Dr. Friedman has designed a study to examine whether treating patients with low vitamin D levels can lead to an improvement in parameters related to glucose (glycemic parameters). There has been one other study published showing that patients getting low doses of vitamin D and calcium for three years had a decreased glycemic parameters if they had prediabetes.

Vitamin D may help improve glycemic parameters in patients with either prediabetes or diabetes by either improving insulin secretion, decreasing insulin resistance, or reducing inflammation. As most patients in the US are vitamin D deficient, Dr. Friedman designed a study to quickly raise the levels of vitamin D into the upper-normal range. In this study, he will be giving a fairly large dose of vitamin D that comes as a liquid once a month for 2 months. At the beginning, after one month and at the end of the study, he will perform glucose tolerance testing, which is a way to assess glycemic parameters. He is looking at patients with prediabetes that either have impaired fasting glucose (baseline glucose between 100 and 126 mg/dL) or an abnormal glucose tolerance test (2-h plasma glucose concentration after 75 gram glucose load ≥ 140 and < 200 mg/dL). As part of this study, patients can be screened with blood tests to see if they have prediabetes. The screening is of no cost to the patient, and if the patient qualifies by having low vitamin D levels and prediabetes, the subject will get the vitamin D for free as well as a stipend.

If you are interested in this study, please contact Juan or Maria at 323-563-9385, or email at vitaminD@goodhormonehealth.com. For more information on Dr. Friedman's practice, please visit www.goodhormonehealth.com.