

## VITAMIN D NEWS

### Vitamin D Reduces Muscle Fatigue in the Elderly

It is well known that the ability to exercise, especially in the elderly, can help keep disease at bay, and, it has been shown that physical activity will reduce the risk of cardiovascular and metabolic (insulin resistance) diseases. Therefore, it is of great value to discover that having good vitamin D levels will reduce muscle fatigue, thereby allowing for the elderly to be more physically active, and to, in turn, keep themselves much healthier.

A recent study examined 85 healthy Saudi individuals, between the ages of 64 and 96, to see how vitamin D levels related to muscle fatigue after physical activity. The researchers measured the vitamin D status, total antioxidant capacity (TAC) activity, muscle fatigue biomarkers, and pain levels, of the participants.

Their conclusion was as follows: "These results demonstrate that 25(OH)D concentrations and calcium might prevent muscle fatigue by regulation of the biosynthesis of CK, LDH, troponin I, and hydroxyproline via a proposed anti-free radical mechanism reported by higher TAC activity. **It was suggested that vitamin D status could be reported as a marker of the improvement of muscle performance, especially in healthy older adults with lower physical activity.**"

Al-Eisa E. et al. "Correlation between vitamin D levels and muscle fatigue risk factors based on physical activity in healthy older adults." Clinical Interventions in Aging, 2016.

<http://www.ncbi.nlm.nih.gov/pubmed/27217733>

### Vitamin D and Diabetic Retinopathy

According to new research people with diabetes, who have lower levels of vitamin D, could have an increased risk of developing diabetic retinopathy. The most common form of diabetic eye disease, diabetic retinopathy usually only affects people who have had diabetes (or metabolic syndrome) for many years, it being caused by prolonged high blood glucose levels.

What happens is that, over time, high blood glucose levels can weaken and damage the small blood vessels within the retina, which, in turn, can cause hemorrhages, and swelling of the retina. This then starves the retina of oxygen, and abnormal vessels may grow.

Unfortunately, the early stages of diabetic retinopathy may occur without symptoms, and an actual influence on the vision will not occur until the disease is already in an advanced state. At this point, symptoms can include: sudden changes in vision; blurred vision; double vision; eye pain; or eye floaters and spots.

So, recently, researchers at Bassett Medical Centre (Cooperstown, New York), conducted a review of 11 observational studies that evaluated the relationship between vitamin D deficiency, and diabetic retinopathy. These studies involved over 9,000 patients, and researchers compared patients with optimal, or deficient, vitamin D levels, and patients with diabetic retinopathy, and healthy controls. The head of this study, Anawin Sanguankeo, MD, confirmed that patients with diabetic retinopathy were found to have lower vitamin D levels than controls.

He stated that: "Vitamin D may have a role in the pathophysiology of creating diabetic retinopathy. In the future, there should be studies that assess [whether] giving vitamin D to patients that have diabetes will prevent diabetic retinopathy or slow progression in patients who already have [diabetic retinopathy] compared to patients who do not have optimal vitamin D."

<http://www.diabetes.co.uk/news/2016/may/vitamin-d-deficiency-could-increase-risk-of-diabetic-retinopathy-90158104.html>

## **VIEWING**

Author and philosopher Gregg Braden, combines history, mysticism, religion, and science, providing new insights into the ancient mysteries. In this video he discusses how the heart doesn't just pump blood, but also contains neurons, and exhibits intelligence.

<http://tv.greenmedinfo.com/gregg-braden-institute-of-heartmath/>

If you enjoy what he has to say, more information on the subject can be found at The Institute of HeartMath, an internationally recognized, nonprofit, research and education organization, "dedicated to helping people reduce stress, self-regulate emotions, and build energy and resilience for healthy, happy lives." <http://www.heartmath.org>

## **READING**

"Recent years have seen a shocking increase in antidepressant use the world over, with 1 in 4 women starting their day with medication. According to Dr. Kelly Brogan, antidepressants not only overpromise and under-deliver, but their use may permanently disable the body's self-healing potential. In this groundbreaking, science-based and holistic approach, Dr. Brogan shatters the mythology conventional medicine has built around the causes and treatment of depression. Based on her expert interpretation of published studies, combined with years of clinical experience, Dr. Brogan illuminates the true cause of depression—and inflammation is at the root."

Her book "A Mind of Your Own" is aimed at women, but the information and recommendations can equally be applied to men. Visit her website to read the first chapter for free.

<http://kellybroganmd.com/amindofyourown/>