

SUMMIT

Naturopathic News

Vitamin D and CRP levels Indicators of Cardiovascular Health

Vitamin D has a wide range of functions in the body, and ongoing research continues to shed light on the vitamin's diversity and importance. We have known for a long time that vitamin D deficiency in children results in the bone disorder called rickets, and in adults, deficiency increases general bone loss and osteoporosis.

There are increasing studies showing that low vitamin D status results in increased levels of autoimmune disease, increased blood pressure & cardiovascular disease, increased cancer, increased susceptibility to winter colds & flu, and S.A.D. (seasonal affective disorder).

A study published in 2007 showed that people taking 800 IU of vitamin D each day had the same incidence of wintertime sickness, but if they increased the dosage to 2,000 IU of vitamin D each day, less than 1% of the studied subjects got sick in wintertime. This is becoming a plausible theory for why people get more cold & flu in winter than in summer.

Another study published in January 2008 showed that nearly 2,000 people studied for 5 years had a 62% higher incidence of cardiovascular events if they had low vitamin D status. A second study from 2008 that looked at 5,000 people's vitamin levels, found 80% higher incidence in peripheral artery disease in those who had low vitamin D. In addition, there are many studies showing increased levels of deadly cancer, SAD (seasonal affective disorder) and autoimmune diseases (such as M.S., common in northern latitudes) in people who have low vitamin D status.

Most people are aware that vitamin D is produced from cholesterol by the skin when exposed to direct sunlight. Fortunately for fair-skinned people, it only takes 15-30 minutes of summer sun exposure to hands and face, without sunscreen, every other day to get adequate levels of vitamin D. Dark-skinned people need to have a couple hours of exposure to get equal levels of vitamin D production. It is becoming a plausible theory that this is a factor in the increased blood pressure, and heart disease risk in African Americans who live at northern latitudes.

Since vitamin D requires sunlight for its production, it's easy to imagine that many people are deficient, especially in the winter months. A recent study, published in the Archives of Internal Medicine, shows that 3 out of 4 Americans are deficient in vitamin D. One research expert, Dr. David Hanley, at the University of Calgary in

Alberta, concluded that virtually 100% of Canadians are vitamin D deficient during some of the winter months. It is probably safe to assume that Summit County residents are in the same boat.

It is possible to increase vitamin D levels in the blood by supplementation, and foods. However, food sources of vitamin D are limited to fatty fish, such as salmon, mackerel, herring and sardines, egg yolks, butter and cod liver oil. Most homogenized milk, as well as many breakfast cereals, is fortified with a synthetic form of vitamin D, in order to ensure that children meet the recommended daily allowances.

Although vitamin D is an essential component of health, it is considered by many to be one of the most potentially toxic nutrients, and intake must be carefully monitored, in order to maintain the optimal therapeutic dose. Overdose of vitamin D may lead to symptoms of excessive thirst, diarrhea, nausea, weakness and headaches. Prolonged excessive intake may lead to increased levels of calcium and phosphorus in the blood and urine. Toxic levels of vitamin D may result not only from over-supplementation, but also from prolonged sun exposure, particularly before the body has adapted though increased pigmentation (tanning).

The recommended daily allowance for vitamin D is 200 to 600 IU, depending on age. In light of the recent surge in research on the subject, we may see the RDA increase soon. However, due to the narrow therapeutic range, it is wise to measure vitamin D levels in the blood, in order to supplement proper amounts for each individual, allowing for variations in diet, ethnicity, absorption, season and geographic location. We offer blood spot testing for Vitamin D levels for \$85.

C-Reactive Protein (CRP) is a protein found in the blood when inflammation and tissue damage are present in the body. Infections can cause rapid, high elevations in CRP. Arthritis and inflammatory bowel disorders can cause increases, but more importantly, recent studies have shown that slight elevations (greater than 2.4 mg/l) in CRP *are indicative of doubled risk for cardiovascular events*. The combination of CRP and HDL cholesterol levels gives a person one of the best indicators for cardiovascular risk available. We offer a blood spot test of high-sensitivity CRP for \$60.