

## Health Bits & Pieces (HFN 34:3)

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#### Hormone Derange

Most doctors of natural medicine would not consider using a form of thyroid that is *not* derived from a natural source. Now more conventional doctors are discovering that it is being overused. Levothyroxine, synthetic thyroid hormone, has become the most prescribed drug in the U.S. for hypothyroidism. Hypothyroidism is also known as underactive thyroid disease. Researchers have questioned the need for such a large number of prescriptions without proper evidence of thyroid deficiency and an appropriate period of surveillance. Elevated TSH levels, sometimes regarded as an unreliable indicator of thyroid function, normalize without intervention in around 60% of cases, possibly because of normal fluctuations in TSH levels and numerous other factors. Whether or not patients are being properly diagnosed for hypothyroidism remains in doubt but a reduction in prescriptions of levothyroxine could be a benefit to public health because taking synthetic thyroid hormone is not without risk with such potential consequences as heart rhythm problems, chest pain, and bone loss.

*Rodriguez-Gutierrez R, Spyridoula M, Ospina N, Montori V, Brito J, "Levothyroxine overuse: time for an about-face?," The Lancet Diabetes & Endocrinology, Published Online: DOI: [http://dx.doi.org/10.1016/S2213-8587\(16\)30276-5](http://dx.doi.org/10.1016/S2213-8587(16)30276-5); Brown T, "100 best-selling, most prescribed branded drugs through March," Medscape.com, 2015, accessed at <http://www.medscape.com/viewarticle/844317>; O'Reilly D, Gray H, McKillop J, Thomson J, "Are biochemical tests of thyroid function of any value in monitoring patients receiving thyroxine replacement?," British Medical Journal (Clin Res Ed), 1986 September 27; 293(6550): 808-810, accessed at <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1341585/>.*

#### Take a "Proper Gander" at this Statin Study

Pharmaceutical-industry propaganda has been promoting statin use to lower cholesterol for many years now. Some of the claims for its safety and efficacy in preventing cardiovascular disease have been challenged by research that rebuts the necessity of lowering cholesterol and the advisability of interfering with the natural and necessary process of cholesterol synthesis in the body. In a recent study published in the *Journal of the American Medical Association*, the U.S. Preventive Services Task Force (USPSTF) recommended the use of statins for primary prevention of cardiovascular disease. They said that adults ages 40 to 75 years without a history of cardiovascular disease (CVD) who have one or more CVD risk factors (high cholesterol, high blood pressure, diabetes) should take a low- to moderate-dose statin drug. The Task Force concluded that there is minimal harm from low- to moderate-dose statin use.

Other studies, however, point out the hazards of using statins. High cholesterol as a risk factor has been a source of controversy for many years. Production of cholesterol by the liver is a vital process because cholesterol is the source material for the body's production of steroids including sex hormones and vitamin D. Statins also block the normal synthesis of Coenzyme Q-10, Vitamin K2, and selenium-bonded proteins, which are all important factors for maintaining cardiovascular health.

*Bibbins-Domingo K, Grossman D, Curry S, et al., "Statin Use for the Primary Prevention of Cardiovascular Disease in Adults," Journal of the American Medical Association, 2016; 316 (19): 1997 DOI: 10.1001/jama.2016.15450; Diamond D, Ravnskov U, "How statistical deception created the appearance that*

*statins are safe and effective in primary and secondary prevention of cardiovascular disease,” Expert Review of Clinical Pharmacology, 2015 Mar;8(2):201-10. doi: 10.1586/17512433.2015.1012494; Epub 2015 Feb 12.*

### **Magnesium Need**

Magnesium is one of the most versatile minerals in the body with a wide range of effects on almost all systems of the body. Magnesium deficiency is implicated in a wide variety of health challenges. Atheromatous disease (hardening of the arteries) is a potential cardiovascular complication of magnesium deficiency. In adults aged 45-64, sufficient serum magnesium levels reduced death by heart attack by 40% even after a 12-year follow-up.

Magnesium deficiency has also been associated with migraine headache, and magnesium therapy has been reported to be effective in the treatment of migraine. Dietary magnesium intake and serum magnesium levels have been associated with prevention of metabolic syndrome. Magnesium is in chlorophyll and so is found in all green vegetables and is found in larger amounts in oat bran; but many nutritionists recommend taking a supplement because sugar, alcohol, and stress rob the body of magnesium.

*Maier J, “Low magnesium and atherosclerosis: an evidence-based link,” Molecular Aspects of Medicine, 2003;24:137-146; Chiuve S, Korngold E, Januzzi J, et al., “Plasma and dietary magnesium and risk of sudden cardiac death in women,” American Journal of Clinical Nutrition, 2011;93(2):253-260; Sun-Edelstein C, Mauskop A, “Foods and supplements in the management of migraine headaches, Clinical Journal of Pain, 2009;25:446-452; Resnick LM, “Cellular ions in hypertension, insulin resistance, obesity, and diabetes: a unifying theme,” Journal of the American Society of Nephrology, 1992; 3: S78-85.*

### **The Asthma Vitamin**

Evidence supporting the importance of Vitamin D continues to grow. Low blood levels of the vitamin have been associated with increased risk of death from cardiovascular disease, cognitive impairment in older adults, cancer (especially breast cancer), and possibly a number of different conditions, including diabetes, glucose intolerance, high blood pressure, and even multiple sclerosis.

Low-serum Vitamin-D levels have also recently been linked to an increased risk of asthma. Taking Vitamin D along with conventional asthma medication can reduce the number of severe asthma attacks. In a research review of seven trials and two studies including 1,093 patients, which were conducted over a period of 6 to 12 months, investigators found that Vitamin-D supplementation reduced the risk of severe asthma attacks requiring hospital admission as well as reduced the need for steroid tablets. In a previous study published in the journal *Allergy* it was noted that Vitamin D could help manage asthma attacks. The researchers reviewed approximately four million medical records of members of Clalit Health Services, Israel's largest healthcare provider.

*Martineau A, Cates C, Urashima M, et al., “Vitamin D for the management of asthma,” Cochrane Library, 2016 DOI:10.1002/14651858.CD011511.pub2; Confino-Cohen R, Brufman I, Goldberg A, Feldman B, “Vitamin D, asthma prevalence and asthma exacerbations: a large adult population-based study,” Allergy, Vol 69, Iss 12: 1673-1680, December 2014.*

### **Caffeine, Theanine or Me?**

Both coffee and tea contain caffeine, but tea contains another compound that appears to have a calming effect. Caffeine is a well-known stimulant but a substance in tea called L-

theanine has the opposite effect. L-theanine crosses the blood-brain barrier and may help increase levels of the brain neurotransmitters serotonin, dopamine, and GABA. It has widely recognized anti-anxiety properties. Many people are sensitive to the caffeine in coffee, but it may be that tea can stimulate alertness and activity without some of the unpleasant effects of drinking coffee, such as heart palpitations, arrhythmias, agitation, and anxiety. Theanine in tea may offset some of the effects of caffeine and support the benefits of caffeine and moderate the negative ones. Theanine has also been shown to increase alpha brain-wave activity in humans, which results in a mentally relaxed condition while maintaining alertness.

*Nathan P, Lu K, Gray M, Oliver C, "The neuropharmacology of L-theanine (N-ethyl-L-glutamine): a possible neuroprotective and cognitive enhancing agent," Journal of Herb Pharmacotherapy, 2006;6(2):21-30.*