Becky Comments: This is very good information but nothing is said about needing to use the active form of folate, etc. If you have a genetic defect that cannot convert the inactive to active then you have nothing, no matter how many folate-containing foods you eat.

# TriVita's Weekly Wellness Report

by Brazos Minshew, TriVita's Chief Science Officer Inflammation Hot Spots February 13, 2010 - www.trivita.com

The process of inflammation starts with injury, toxicity, deficiency or emotional distress. One particular deficiency that causes inflammation is a genetic deficiency called MTHFR. This deficiency is relatively common – perhaps the most common genetic deficiency in North America. It is related to the way we manufacture proteins. A sign that we have MTHFR deficiency is elevated homocysteine.

MTHFR deficiency creates pools of homocysteine that ignite inflammation like bonfires in specific tissues of your body. The strategies for reducing this inflammation depend greatly on where the bonfire starts. And, like many forest fires, inflammation often features multiple fronts that require different strategies for quelling its flames.

#### **Burning brain**

The delicate tissues of the brain are common victims of inflammation from an MTHFR deficiency. Elevated homocysteine feeds the fire that melts fragile neurons. Movement disorders like Parkinson's disease and dementias such as Alzheimer's disease are associated with elevated homocysteine. Further, inflammation in the brain associated with MTHFR and elevated homocysteine are also implicated in autism, ADD/ADHD, bipolar depression and schizophrenia.

MTHFR deficiency is addressed by increasing folates in the diet. Folates describe a B vitamin from foliage – leafy green vegetables. Actually, all fruits and vegetables contain some folate. Eating the optimum amount of folate can go a long way to filling the deficiency associated with MTHFR and elevated homocysteine. Remember, the optimum number of servings for fruits and vegetables is:

- 5 servings for children
- 7 servings for women
- 9 servings for men

Make sure you eat vegetables of every color - eat a rainbow!

Supplements such as HCY Guard® provide nutrients that help "re-methylate" homocysteine in the presence of this MTHFR deficiency. Inflammation is normalized by the antiinflammatory Betalains found in Nopalea<sup>™</sup>. Essential fatty acids and EFA supplements such as OmegaPrime® serve as primary building blocks for a healthy brain. Also, Omega-3 EFA, Betalains and ECGC polyphenols in Energy Now!® serve to help the body protect DNA strands and create stem cells that are needed to repair delicate, fragile brain tissues.

#### **Burning bones**

Bones are living tissue. Osteoblast cells lay down a matrix of collagen proteins and build minerals around it. Collagen provides tensile strength for the bones and minerals provide compression strength for the bones. Homocysteine shatters this matrix and melts the collagen in your bones (and elsewhere), resulting in brittle bones. Further, without collagen, minerals cannot form and the bones become porous. The end result is often osteoporosis.

Folates and plant hormones such as Vitamin K found in leafy green vegetables help reduce the impact of MTHFR deficiency and increase the opportunity for osteoblasts to make healthy bone. Healthy bones also require significant amounts of Vitamin D. Sunshine is the best source of Vitamin D; however, in North America it is not always possible to get enough healthy sun exposure to meet our Vitamin D needs. Supplements such as Bone Growth Factor and VitaCal-Mag D can help give us the nutrients we need for healthy bones. HCY Guard can help the body reduce inflammatory homocysteine and Betalains from Nopalea can help reduce the impact of inflammation.

### **Burning blood**

MTHFR deficiency was discovered when scientists began searching for the reasons why heart disease and stroke seemed to cluster in certain families. It was discovered that these families shared a genetic deficiency that required far more folate than their diet provided. Folate deficiency depletes Vitamin B-12 and compounds the homocysteine problem. Homocysteine ignites LDL ("bad") cholesterol in the bloodstream and creates the inflammation at the root of cardiovascular disease, heart attacks and stroke.

A high folate diet focusing on leafy green vegetables can fill this deficiency. Supplements such as HCY Guard, Nopalea and OmegaPrime can help the body ease' the fire in the delicate tissues lining the blood vessels. According to the VISP study (Vitamin Intervention for Stroke Prevention) this comprehensive strategy can fill the deficiency created by MTHFR, put out the fire fueled by homocysteine, and reduce the likelihood of heart attack and stroke.

## Conclusion

Inflammation hot spots build fires around your body in places like your brain, your bones and your heart.

- 1. A high folate diet can fill the deficiency that causes these body bonfires.
- 2. Safe daily sun exposure along with exercise and peaceful sleep can help build a solid foundation for wellness.
- 3. Appropriate supplementation can help satisfy the needs created by MTHFR while putting out the fires of inflammation and creating vigorous cells for health today and a healthier tomorrow

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