

The Wellness Express

Jump on the train to good health

Issue 2, January 2011

Don't "B" Without These Eight Vitamins

Presented by:

In this issue of Wellness Express, we look at the role of B vitamins and the importance they play in your body, especially for your brain, nervous system, metabolism and blood cells.

You may wonder why there are so many B vitamins. The eight types are chemically different enough from each other to stand alone as separate vitamins. When the eight are combined into a single capsule or tablet, the product is referred to as a B complex vitamin.

Although B vitamins are found in numerous foods, there are times when it may be beneficial to supplement your intake of these nutrients. Your age, dietary habits, medication use and state of health all impact the levels of vitamins you should be getting daily. Talk to your chiropractor or other qualified healthcare professional before using supplements. He or she can also recommend the appropriate amounts of B vitamins that are right for you.

From a food group perspective, B vitamins are mainly found in animal products, such as meat and dairy. However, most B vitamins do occur in smaller amounts in plant-based foods; you can find them in green vegetables, potatoes, beans, nuts, bananas and citrus fruits.

Presented by:

Below are descriptions of the eight B vitamins and their reported health benefits.

B1 (Thiamine)

Like many of the B vitamins, B1 – or thiamine – is essential in creating energy from carbohydrates, fat and protein. It is also significant for the health of your heart and nervous system

B2 (Riboflavin)

Riboflavin helps distribute iron, and it is also crucial for metabolism and skin health. It is used in conjunction with phototherapy to reduce jaundice in new born infants. More recently, Riboflavin demonstrated promise in health studies as a treatment for the eye disease keratoconus.

B3 (Niacin)

As well as extracting energy from food like other B vitamins, niacin aids with blood circulation and appetite regulation.

Niacin has been studied closely because of its therapeutic benefits related to cholesterol. Research reveals niacin boosts HDL (often called "good" cholesterol) while allowing bad LDL cholesterol to be flushed out of the body.



Exercise of the Week

Hamstring Curls Supine,
Hips Held Motionless

Difficulty: Easy to Moderate

(Consult your chiropractor before doing this or any other exercise.)

Start: Lie on back, lower legs resting on ball, knees straight. Hands can rest on hips with elbows touching floor. Press down into ball with legs, lifting hips until entire body is in a straight position, feet to shoulders. Stabilize with stomach tucked in and hold.

Exercise: Roll ball toward buttocks using both feet. As ball comes closer to buttocks, hips should keep still, neither rising, falling or tilting to sides. Curl legs to 90 degrees and hold for 2 counts. Return to starting position, maintaining a tight abdomen throughout. Repeat 5-10 times



Studies indicate high doses of niacin may increase HDL by as much as 35 percent. (Do not use niacin for cholesterol control without supervision from a qualified healthcare professional.)

In research conducted at Michigan's Henry Ford Hospital, niacin was shown to improve brain function after stroke, one of North America's leading causes of death. B3 increased blood vessels in the brains of the stroke victims.¹

B5 (Pantothenic acid)

Pantothenic acid is key in food energy conversion, especially as it assists coenzyme A – critical for the synthesis of fatty acids. Some research indicates that vitamin B5 may impact obesity. People with low amounts of pantothenic acid were more strongly influenced by hunger.²

B6 (Pyridoxine)

Pyridoxine plays a number of crucial roles, including preventing anemia, maintaining blood sugar levels, and helping your immune system. Vitamin B6 creates niacin (vitamin B3) from the amino acid tryptophan. It's also important for maintaining mental health as it is a catalyst in the creation of mood influencing neurotransmitters serotonin and dopamine.

B7 (Biotin)

Biotin is often found in beauty products because of its ability to promote hair and skin health. But its most promising therapeutic potential could be for helping diabetics. Research shows biotin assists with blood sugar control and glucose levels – in some cases, slashing glucose by nearly 50 percent.³ As well as impacting blood sugar, biotin may alleviate symptoms caused by diabetic neuropathy.⁴

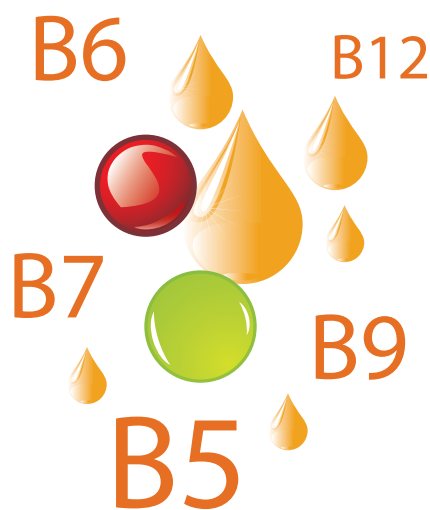
B9 – (Folate / Folic Acid)

Vitamin B9 has one of the highest profiles of all the B vitamins. It is widely recommended for women trying to conceive children as it helps stop neural tube defects, such as spina bifida, during pregnancy. As well, folic acid assists with red blood cell formation and preventing anemia. It also helps convert vitamin B12 into its most metabolically potent form.

B12 (Cobalamin)

This B vitamin is well known for its positive effects on neurological health. Unfortunately, many older adults are deficient in this vitamin. B12 is not found in plant sources, which can make it problematic for vegans. If you do not eat animal products or you are over the age of 50, talk to your chiropractor about whether B12 supplementation is appropriate for you.

According to research conducted at Oxford University, vitamin B12, along with vitamins B6 and B9, may help people suffering from mild cognitive impairment (MCI) -- a risk factor in developing Alzheimer's disease.⁵



Disclaimer: Information contained in this Wellness Express newsletter is for educational and general purposes only and is designed to assist you in making informed decisions about your health. Any information contained herein is not intended to substitute advice from your physician or other healthcare professional.

Copyright 2010 Wellness Express™

Quote to Inspire

"You can change beliefs so they empower your dreams and desires"

- Marcia Wieder

References and Sources:

1. Niaspan treatment increases tumor necrosis factor- α -converting enzyme and promotes arteriogenesis after stroke - *Journal of Cerebral Blood Flow & Metabolism* (2009) 29, 911–920; doi:10.1038/jcbfm.2009.11.
2. Leung L (1997). "A stone that kills two birds: how pantothenic acid unveils the mysteries of acne vulgaris and obesity"- *J Orthomol Med* 12 (2): 99–114.
3. Maebashi M, Makino Y, Furukawa Y, Ohinata K, Kimura S, Sato T. Therapeutic evaluation of the effect of biotin on hyperglycemia in patients with non-insulin dependent diabetes mellitus - *J Clin Biochem Nutr.* 1993;14:211-218.
4. Koutsikos D, Agroyannis B, Tzanatos-Exarchou H. Biotin for diabetic peripheral neuropathy - *Biomed Pharmacotherapy.* 1990;44(10):511-514.
5. Homocysteine-Lowering by B Vitamins Slows the Rate of Accelerated Brain Atrophy in Mild Cognitive Impairment: A Randomized Controlled Trial - *PLoS ONE*, 2010; 5 (9): e12244 DOI: 10.1371/journal.pone.0012244.

This newsletter is written and designed by Mediadoc™ exclusively for chiropractors

Writer/Editor: David Coyne

Writer: Dr. Christian Guenette, DC

Design: Elena Zhukova

Photos: Fred Goldstein