

B100 BioMax: The Optimal Energy B Complex

By Dr. Zoltan P. Rona, M.D., M.Sc.



I have now been taking this version of the B complex for two weeks and have noticed a very nice change in my stamina during tennis matches. At my age, I need all the help I can get. Several patients that started using the B100 BioMax reported similar results with the product as well. One patient who could not tolerate B vitamins of any kind even told me that she had absolutely no stomach upset with the product. Let me explain why this formulation works so well.

The B complex vitamins are the most underrated of all the nutritional supplements you will find on the shelves of your local health food store. They are far more important for the optimal functioning of the brain, spinal cord and nervous system than any other nutrient or herbal remedy. While glucosamine sulfate, chondroitin sulfate and shark's cartilage are grabbing the headlines in osteoarthritis reversal; we often forget that equally exciting (and less expensive) results can be achieved in osteoarthritis with high doses of several B vitamins, including niacinamide and vitamin B12. And did you know that the often overlooked B vitamin, biotin, can not only help prevent hair loss, fragile nails, and certain types of dermatitis but that it can also fight yeast or fungal infections?

The B-complex vitamins are a group of similarly structured water-soluble compounds that are not stored in the body and must be supplied on a daily basis from the diet or through supplementation. They consist of B1, B-2, B-3, B-5, B-6, B-7, B-12, and folic acid. Inositol and choline are often included as part of the B complex. The B-complex of vitamins is used in the proper formation of every cell in your body – particularly the heart, liver and nerve cells.

B-complex vitamin deficiencies occur far more easily and frequently than has been generally assumed, especially in people on weight loss diets, fasts, high daily intakes of sugar, refined and processed foods, as well as caffeine, saccharine and alcohol. People under stress or on a long list of medications, especially antibiotics, diuretics, chemotherapy, the birth control pill, hormone replacement therapy, etc, may be at high risk to develop B vitamin deficiencies.

B VITAMINS ARE VITAL FOR:

- Health of the skin, bones, hair and muscle
- Health of mucosal membranes, particularly around the mouth
- Intestinal health and bowel function
- Optimal blood sugar control
- Relief of moodiness, restlessness, irritability, insomnia, fatigue
- Improved liver and cardiovascular system health
- Brain cell function and health
- Relief from skin problems, dry and itchy skin and rashes
- Relief from PMS, nausea, muscular weakness and sore or dry mouth and tongue.

B-complex vitamins are commonly found together in foods and have similar coenzyme (catalysts for enzyme reactions) functions, often needing each other to perform specific metabolic tasks. Some of the B vitamins (B-12 and biotin) can also be made in the body by friendly microbes (bacteria, yeast, fungi, molds) in the large intestine. The majority of B vitamins, however, are obtained from food and then absorbed into the blood, mainly from the small intestine. If we consume too many B vitamins, the excess is excreted through the urine and the skin (perspiration). These excesses, with rare exceptions like B-3 (niacin), are harmless and often helpful, especially for those suffering from various suboptimal mental processes.

The B vitamins are found in many foods, occurring together, never in isolation. While the richest natural source of B vitamins is brewer's yeast or nutritional yeast, this is not an ideal food for many hypersensitive people. Other good sources of the B vitamins are the germ and bran of cereal grains, green vegetables, beans, peas, liver, most animal foods and nuts.

The B vitamins function primarily as coenzymes that catalyze many biochemical reactions in just about every cell in the body. They create energy by converting carbohydrates to glucose and also are important in fat and protein/amino acid metabolism. The B complex vitamins are very important for the normal functioning of the nervous system, via their anti-stress effects and energy boosting properties. The B vitamins are also vital for the general muscle tone of the gastrointestinal tract, which allows the bowels to function at their best.

The functions of the B vitamins are interrelated. In therapeutic dosages, they are best taken as a B-complex to relieve stress, fatigue, anxiety, nervousness, insomnia, and hyperactivity. Isolated B vitamin supplements may be therapeutically useful for conditions such as PMS (premenstrual syndrome), which can be helped by higher dosages of vitamin B6 (1000 mg. or more daily) in addition to a balanced B-complex supplement. Similarly, high doses of B-5 for adrenal stress and B-1 for alcohol-induced organ damage are therapeutically helpful.

B VITAMINS FOR ANXIETY AND DEPRESSION

Practically all the B-complex vitamins are involved in treatment of anxiety and depression. The most important of these are B1, B3, B6, B12 and inositol. When using high doses of individual B vitamins, they must always be in conjunction with all the other B vitamins in relatively high doses to prevent or reduce side effects as well as deficiencies in those B vitamins not supplemented. For example, if using vitamin B1 in doses of 1000 mg. daily, take a B complex of at least 100 mg of most of the other Bs at the same time.

- **B1** reduces or eliminates irritability, disordered thinking and mental confusion in otherwise healthy people. Clinically indicated in Alzheimer's disease, depression, insomnia, memory loss, alcoholism and all anxiety disorders.
- **B2** Vitamin B2(Riboflavin): Riboflavin has many roles in the body one of them being to contribute to the production of Reduced Glutathione (GSH). GSH protects from cataract formation. Studies have found that increased Riboflavin intake is associated with reduced nuclear cataract formation. Riboflavin is also used in the treatment of migraine headaches. It has been found to be as effective as certain beta-blockers in reducing the frequency of migraines. Further, both Thiamin and Riboflavin play crucial roles in the Krebs cycle, a very important part of energy production in the body.
- **B3** is recommended for circulatory problems and lowering triglycerides and cholesterol. Niacinamide does not work in this fashion and is more applicable to anxiety, nervousness and irritability. Niacinamide is effective treatment for anxiety, insomnia, depression and other nervous system problems commonly seen in people who suffer from hypoglycemia and/or diabetes. Dementia, irritability, headaches, mental confusion, attention deficit disorder, hallucinations, amnesia, certain forms of schizophrenia and severe depression can all be signs or symptoms of B3 deficiency.
- **B6** is clinically effective in practically all anxiety and depression related psychiatric illnesses including anorexia nervosa, attention deficit disorder, autism, bipolar disorder, PMS, chronic fatigue syndrome, fibromyalgia, hyperactivity and dementia.
- **B12** goes by many names: Cyanocobalamin – oral, sublingual, or intranasal administration of B12 is only rarely effective; Hydroxycobalamin (injectable) is longer acting and achieves higher B12 levels than cyanocobalamin; Methylcobalamin (oral lozenges) - brain active form especially useful for mercury toxicity and other neurological problems (M.S., chronic pain syndromes). The most spectacular benefits of B12 are seen with depression, chronic fatigue, memory loss, neuropathy and bipolar disorder. Although effective against anxiety, other B vitamins, especially B3 in high doses, appears to be most effective.
- **Inositol** has been reported in recent psychiatric journals to be as effective as prescription anti-depressant and anti-anxiety drugs without the side effects. One side benefit in large doses is that it helps remove fat from the liver.

B VITAMINS AND CANCER PREVENTION

A recent study [1] of the effect of B vitamins on a large group of participants reported an inverse relationship between blood serum levels of vitamin B6, methionine, and folate and the risk of lung cancer. High serum levels of vitamin B6, methionine and folate were associated with a 50% or greater reduction in lung cancer risk. This exciting finding has not been widely reported in the media, but it confirms a growing body of evidence gathered over the last 40 years that B vitamins are important for preventing diseases such as cancer.

The study gathered information about the lifestyle and diet of 385,000 people in several European countries. The average age was 64 years, and most had a history of drinking alcohol daily. Blood samples were then taken from these participants, and some of those (889) that developed lung cancer were analyzed for the level of several B vitamins and related biochemicals such as methionine, an essential amino acid. These nutrients were studied because they are known to be important in the metabolism of single carbon compounds, which is necessary for the synthesis and repair of DNA in the body's tissues [2]. Thus, B vitamins are helpful in preventing defects in DNA which can cause cancer [2-4].

Specifically, a high level of either vitamin B6, or methionine, or folate reduced the risk for lung cancer. High levels of all these nutrients together produced an even lower risk. The effects were large, so the results are highly significant.

The study divided the participants into three categories, depending on whether they currently smoked, had previously smoked, or had never smoked. While smoking is the most important lifestyle factor in the risk for lung cancer, interestingly, the effects of vitamin B6, methionine, and folate were fairly constant among the three categories. That is, those with higher levels of these B vitamins had a significantly lower risk of lung cancer no matter whether they smoked or not. The report emphasizes that this result strongly suggests that the effect of these essential nutrients in lowering the risk for cancer is real and not purely a statistical correlation. And, the report reiterates that smoking is dangerous, greatly increasing the risk for lung cancer in older people after decades of insult to the lungs.

Some widely-reported health studies have suggested that B vitamins can increase the risk of cancer. The theory is that these vitamins can help to prevent cancer from their effects in strengthening DNA synthesis and repair, but that when cancer is present, the vitamins supposedly help the cancer to grow [5]. However, there is a long history of health studies, including the above mentioned study, reporting that B vitamins including folate and vitamin B6 can help to prevent many types of cancer, such as breast, prostate and colorectal cancer [1-6].

It is just amazing how the news media could have missed this, but they pretty much did. In one much-publicized study [7] it was widely claimed that "Multivitamins increase deaths in older women!" Actually, the study found that B complex vitamins were associated with a 7 percent decrease in mortality, vitamin C was associated with a 4 percent decrease in mortality, vitamin D was associated with an 8

percent decrease in mortality, and several minerals were associated with a decrease in mortality.

Essential nutrients in a well-balanced diet, including B-complex, C, D, and E vitamins, are crucial to maintaining good health into old age for a variety of reasons. Persons taking adequate levels of vitamins will live longer, with fewer heart attacks [8] and other serious diseases such as diabetes [9], multiple sclerosis [10], and dementia [11].

The question begged by the report is, what role did vitamin supplements play in the blood levels reported for these essential nutrients? Taking a multivitamin that includes B-complex vitamins will obviously increase the blood levels of these essential nutrients. However, the value of supplements was not emphasized in the report.

So we will emphasize it here. Vitamins dramatically lower lung cancer risk. Supplements provide these nutrients in abundance. Modern diets do not.

ADAPTOGENS MAXIMIZE B COMPLEX BENEFITS

Many people use sugar and caffeine (coffee, chocolates, energy drinks) to deal with stress and fatigue. There seems to be a Starbucks or Tim Horton's on every block of our towns and cities that proves the popularity of these quick fix options. The problem with this is that it doesn't work. Shortly after the quick lift from sugar and caffeine comes the crash in energy and mood. Then the cycle begins again with the eventual result being a dependence on these stimulants. There IS a better way and that is with something called adaptogens.

Adaptogens are special medicinal herbs that help the body adapt to stress and resist fatigue. They basically improve the health and function of the adrenal glands, the glands located just on top of your kidneys that secrete the hormones needed to deal with stress. They are termed adaptogens because they help adapt the body's hormones to the degree of stress that is present. For example, if cortisol levels are low, they boost the level of production of cortisol by the adrenal gland. If cortisol is too high, they help the adrenals manufacture less cortisol. In that way, they maintain a more optimal functioning of the adrenal gland and prevent the highs and lows in energy, anxiety, depression and other symptoms of an inability to deal with stress. The sudden jolts of energy accompanied by the inevitable lows are gradually eliminated, or at the very least, improved with adaptogens.

Adaptogens have been used in herbal medicine for over 1000 years and have a long history of safety and efficacy. The ones that I most frequently recommend for adrenal stress are Ashwagandha, Rhodiola and Panax Ginseng. These three herbs in combination optimize numerous hormones, especially cortisol and the sex hormones. They therefore have beneficial effects on multiple organ systems.

PANAX GINSENG

Asians have used this form of ginseng for thousands of years as a way of boosting general well being, longevity, immunity, potency, better libido and the ability to deal

successfully against stress of any kind.

ASHWAGANDHA

Often referred to as "Indian ginseng", Ashwagandha is one of the most popular of the Ayurvedic medicinal herbs, used successfully much like Asian ginseng for thousands of years. It's often recommended by herbalists for high blood pressure, chronic fatigue, insomnia, immune system imbalances, anxiety and impotence. It works well with the B complex, vitamin C and other adaptogens. Look for the "Sensoril" standardized extract of Ashwagandha on the label to know you are getting the most studied and bioavailable version of this herb.

RHODIOLA ROSEA

This herb is best known for its effects in balancing cortisol blood levels, improving moods, heart health, brain function and athletic performance. Unlike anabolic steroids, it is considered to be legal for use during athletic competitions. Look for 3% rosavin and 1% salidroside on the label of any rhodiola root you purchase for good levels of the active ingredients.

Your natural health care practitioner can recommend the right amounts of B complex and adaptogens for you to supplement but for most individuals, 1 – 2 capsules with each meal of the B100 BioMax should work just fine.

Dr. Zoltan P. Rona practices Complementary Medicine in Toronto and is the medical editor of "The Encyclopedia of Natural Healing." He has also published several Canadian best-selling books, including "Return to The Joy of Health." For more of his articles, see <http://mydoctor.ca/drzoltanrona> and <http://www.tristarnaturals.com/home.html>

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- Seven adaptogens. <http://draxe.com/7-adaptogen-herbs-to-lower-cortisol/>
- Sensoril Ashwagandha. <http://sensoril.com/why-sensoril/>

The Way to "B", is stress free



- Most Bioavailable Coenzyme forms of B Vitamins
- Added Sensoril optimized Ashwagandha for stress and mood management
- Added Rhodiola to support the nervous system and physical endurance
- Added Panax Ginseng to support cognitive function + energy production

Formulated by Zoltan P. Rona, MD, MSc

Sealed for your protection. Keep out of the reach of children. Do not use if safety seal is broken or missing. For freshness store in a cool, dry place.

Recommended purpose or use:

- An antioxidant for the maintenance of good health.
- Helps the body to metabolize carbohydrates, fats & proteins.
- Helps normal growth and development.
- Helps in tissue and red blood cells formation.
- Helps to reduce the risk of neural tube defects when taken daily prior to becoming pregnant and during early pregnancy.
- Helps in the development and maintenance of bones, cartilage, teeth and gums.
- Helps in connective tissue formation.
- Helps in wound healing.

Recommended dose: (Adults) Take 1 capsule 3 times daily. Take with food.

Medicinal ingredients:

Each veggie capsule contains:	1 cap	3 caps
Vitamin B1 (Benfotiamine).....	33.3 mg	100 mg
Vitamin B2 (Riboflavin 5'-phosphate sodium, Riboflavin).....	33.3 mg	100 mg
Vitamin B3 (Niacin from Inositol hexanicotinate).....	120 mg	360 mg
Vitamin B5 (Pantethine, Calcium d-pantothenate).....	100 mg	300 mg

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PRACTITIONER SERIES

B100 BioMax™

Bio Active Coenzyme B Complex

FEATURING:
Sensoril® Ashwagandha + Rhodiola + Panax Ginseng

Formulated by
Zoltan P. Rona

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120 veggie capsules NPN 80057634

Vitamin B6 (Pyridoxal 5-phosphate, Pyridoxine hydrochloride).....	33.3 mg	100 mg
Vitamin B12 (Methylcobalamin).....	333.3 mcg	1000 mcg
Folic acid (Calcium L-5-methyltetrahydrofolate).....	333.3 mcg	1000 mcg
Biotin.....	333.3 mcg	1000 mcg
Ascorbic acid (Vitamin C).....	25 mg	75 mg
Choline (Choline bitartrate).....	80 mg	240 mg
Inositol (Inositol, Inositol hexanicotinate).....	100 mg	300 mg
PABA (para-Aminobenzoic acid).....	25 mg	75 mg
Sensoril® Ashwagandha (Withania somnifera) [8 : 1, OCE 200 Mg].....	25 mg	75 mg
Rhodiola (Rhodiola rosea, Root) [3% Rosavin, 1% Salidroside].....	25 mg	75 mg
Panax ginseng (Root).....	15 mg	45 mg

Non-medicinal ingredients: Magnesium stearate (Vegetable source), Hypromellose (Capsule ingredient), Chlorophyll (Capsule ingredient).

Contains no added gluten, nuts, eggs, animal products, dairy products, fish or shellfish, soy, corn, wheat or yeast.

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