



VITAMIN B6 and its Active Metabolite

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11/17/08

Clinical Pearls: When taking any B vitamin to treat any condition, or just for general health, always include its family members. Start with a B Complex or good multivitamin (see [Basic Nutritional Protocol](#)) and then add B6 separately to this until reaching the desired dosage. Taking one B vitamin in far excess of its family members will have an overall depleting affect upon the body. B6 is primarily used for depression and anxiety, premenstrual syndrome (PMS), morning sickness, prevention of kidney stones, and lowering elevated homocysteine levels. It is also part of treatment plans for autism (specifically as P5P) and for improving cognitive function.

B6, a true “vital amine” is required in a myriad of biochemical reactions in the body for amino acid metabolism. Fundamental in the metabolism of key neurotransmitters such as serotonin, norepinephrine, dopamine, and GABA, it is clear why the epidemiologic association of low B6 levels and subsequent depression and anxiety may occur. Although few clinical trials exist, adding B6 at a dosage of 100 – 500 mg per day can remarkably improve mood especially when combined with the nutrient SAME. An interesting anecdotal “side benefit” of B6 therapy is improved dream recall that usually occurs early into treatment, even before one notices an overall improvement in mood.

Clinical trials do support the use of B6 in the treatment of PMS, where it is proven to improve mood and decrease breast tenderness, especially when combined with magnesium and supportive phytoestrogens as found in the combination Monthly Comfort (Source Naturals®). Please note that B6 depletion is a well-recognized complication for those women who chose to take oral contraceptives or hormone therapy. Do always take a good multivitamin if you chose to take any form of hormonal medications; you will likely note they are more effective with fewer side effects.

As part of a treatment plan for autism, the active metabolite of B6, P5P, should be used. As already documented for the B vitamin folic acid, there are definitely people who have difficulty in converting B6 into its functional form in the body. This can be overcome by using very high doses of the vitamin, or more “cleanly” by giving the active metabolite directly. Unlike with folic acid, we have no test to identify the slow metabolizers and a trial of using P5P while evaluating the clinical response is a safe way to successfully treat autism in some children.

B6 when combined with magnesium significantly decreases the concentration of stone-causing substances known as oxalates in the urine. B6 at 500mg per day with magnesium supplements have been proven to decrease the recurrence of calcium

oxalate kidney stones. When combined with drinking more water, these supplements are the safest known ways to prevent recurring kidney stones!

In conclusion, vitamin B6 and its active metabolite P5P have proven roles in the treatment of depression and anxiety, PMS, autism and kidney stone prevention. When combine with B12, folic acid, and trimethylglycine (Cardio B – Ortho Molecular), it dramatically lowers the levels of the toxic amino acid homocysteine in the blood stream. Although recent clinical trials have brought into question the clinical utility of lowering homocysteine, it is my strong suspicion that it is the lack of balancing specific homocysteine lowering strategies with an overall balanced B complex that has led these trials to fail in documenting significant cardiovascular benefits. So time will tell if B6 is part of a strategy to also lower stroke, myocardial infarction, and Alzheimer's risks as well.

Caveats: Avoid taking more than 100 mg per day of B6 if you take the anti-seizure medicines phenobarbital or phenytoin as B6 can lower their level in the blood stream. Do not take B6 at doses greater than 1000 mg per day as this has been associated with a reversible form of neuropathy.

Dosage: Varies depending on what you are treating but is typically between 100 – 500 mg divided into at least two doses, taken with food. I suggest trying P5P at 50 mg twice per day with food if you wish to try the active metabolite of B6.

Your Journey to Health and Healing,
Gary E. Foresman, MD

References:

Available Upon Request

Website: www.middlepathmedicine.com

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