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## Oral Contraceptives and Vitamin B-6

### Ask Your Pharmacist

In a recent study, Tufts University researchers have suggested that deficient vitamin B6 levels in four groups namely, women of reproductive age especially current and former users of oral contraceptives; male smokers; non-Hispanic African-American men; and over-65s. These results are surprising since it generally thought that B6 deficiencies are rare in the US. The study, published in the May 2008 issue of the American Journal of Clinical Nutrition, analyzed blood samples of a varied sample of 7822 men and women aged one year or older, some of whom were supplement users.

Martha Savaria Morris, PhD, an epidemiologist at the Jean Mayer USDA Human Nutrition Research Center on Aging at Tufts University said "we noticed participants with inadequate vitamin B6 status even though they reported consuming more than the Recommended Daily Allowance of vitamin B6, which is less than two milligrams per day,"

It is significant that the study identified that the contraceptive-using women of child-bearing age (ages 13 to 54), recorded significantly lower PLP (plasma pyridoxal 5'-phosphate) levels. The data suggest that oral contraceptive users have extremely low plasma PLP levels. Three quarters of the women who reported using oral contraceptives - but not vitamin B6 supplements - were vitamin B6 deficient.

Oral contraceptives have been shown to deplete certain vitamins from the body.

There are a number of reported depletions of vitamin C and B vitamins in patients taking "the Pill." Besides Vitamin B-6, other B vitamins depleted by orals include vitamin B-2, B-12, B-5, and vitamin B-6. Included in these depletions is folic acid in particular. Folic acid deficiency in women is the subject of several studies that has prompted the FDA to issue a warning about low levels of folic acid and the occurrence of neural tube defects.

Let's consider how the deficiency of the B vitamins may affect users. As is expressed by their name, B-complex is actually a group of vitamins and vitamin-like compounds which occur together naturally. You won't find one B vitamin without finding the others present and if there is a deficiency in one there is likely to be a deficiency in the rest, too. They assist each other in their actions and one can sometimes 'cover' for another. If there is an increase in the intake of one particular B vitamin it is likely that there will be an increased need for the others so as to maintain a balance.

In the early days of vitamin science it wasn't even recognized that the B vitamins were inter-related. They are as follows: thiamin, riboflavin, niacin, pantothenic acid, pyridoxine, cyanocobalamin, pangamic acid, biotin, choline, folic acid, inositol, and PABA (para-aminobenzoic acid).

**Visit our pharmacy or website to learn more about Oral Contraceptives and Vitamin B-6**

## Vitamin B-6 (Continued)

As a whole, the B vitamins are involved in the promotion and maintenance of the health of nerves, the eyes, hair and skin, the sex glands, sebaceous glands and bone marrow. They affect appetite and digestion, produce hormones, prevent anemia, and assist in the processing of carbohydrates, fats, and proteins, to name but a few of their functions. Let us look at some of the B vitamins which have a particular significance in hormone health and related disorders.

Vitamin B-6 depletions may cause symptoms of depression, anxiety, sleep disturbance and irritability. These are among the considered side effects of oral contraceptives.

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Vitamin B-6 is involved in over 100 different chemical processes in the body, although most of its activity goes on in the brain, with concentrations in that region of up to 50 times greater than the levels to be found in blood. It plays a part in the production of antibodies and red blood cells. B6 prevents nervous disorders, skin and mouth disorders, numbness and cramps in the limbs, arthritis, anemia, and visual disturbances. It is of benefit for asthma sufferers and may help to lessen the severity of the symptoms of carpal tunnel syndrome.

Some learning difficulties may be attributed to a deficiency. B6 is of especial importance during pregnancy and lactation. Where there is a severe deficiency during pregnancy, stillbirth or infant mortality may result. Babies who are formula fed are at greater risk of being deficient when inadequate amounts of B6 are included in the preparation, or if the milk has been overheated. Such practices have led to convulsions and even brain damage. Vitamin B-12 depletions are linked to anemia, chronic fatigue, drowsiness and headaches. These problems also occur in patients with orals. Hence women taking oral contraceptives need to consider supplementing their diet with a B Complex formula.

Many people noticed many side effects diminishing or disappearing as a result of the advice.

Prescription and over-the-counter medications are taken by nearly everyone these days. Frequently, there are side effects which can involve changes in appetite, unpleasant side effects and the ability to absorb nutrients. Some of the most common problems are covered herein: appetite disorders, constipation, diarrhea, dry or sore mouth, gas, heartburn or indigestion, loss of appetite, nausea, taste/smell dysfunction, weight gain. Consult a physician to determine if a problem is simply due to medication, or requires further medical attention.

**Stop by our pharmacy for more information about drug nutrient depletions.**