



Vitamin B6

WHAT IS IT?

Vitamin B6 is a water-soluble vitamin that is required for more than 100 enzymatic reactions involved in metabolism and cellular growth, particularly in protein metabolism. Vitamin B6 is necessary for optimal nervous and immune system function, and is required to make hemoglobin. It also helps maintain normal serum glucose levels.

CONCERNS?

Vitamin B6 is the only B vitamin that is associated with nerve damage when taken at high doses, as a supplement, (generally 500 mg per day, but possibly as low as 150 mg per day if taken for a prolonged period). High vitamin B6 intake from food has not been found to have adverse effects.

According to a large US survey, most children, adolescents, and adults have adequate vitamin B6 intake, although teenagers 12–19 and adults 20 to 39 years old had the lowest vitamin B6 concentration. It is important to keep in mind that taking a supplement does not necessarily guarantee adequate vitamin B6 in some populations if the baseline levels are extremely low.

Those who follow a very strict vegetarian diet might need to increase vitamin B6 intake by eating foods fortified with vitamin B6 or by taking a supplement. Patients with alcohol dependence, pregnancy, impaired kidney function, autoimmune disorders such as rheumatoid arthritis, and malabsorption syndromes, such as Crohn's disease, ulcerative colitis, or celiac disease are at risk of B6 deficiency. **Drug**

Interactions

Many drugs interfere with the metabolism of vitamin B6. For example, theophylline, a drug used in asthma, can decrease body stores of vitamin B6, putting some patients at risk for theophylline-induced seizures.

Doses of 10 mg or higher of vitamin B6, may decrease the effectiveness of anticonvulsant medications, such as phenytoin and phenobarbital, as well as levodopa, a medication used to treat Parkinson's.

WHAT IS IT USED FOR?

- General Immunity**
Low vitamin B6 intake has been associated with impaired immune function (i.e. rheumatoid arthritis) especially in the elderly.
- Morning Sickness**
Vitamin B6 has been used to alleviate nausea and vomiting of pregnancy (NVP) for more than 50 years. The typical dose in many of the research studies was 25 mg taken every eight hours. This dose appears to be safe for both mother and baby. The American College of Obstetrics and Gynecology recommends 10-25 mg of vitamin B6 every eight hours as first-line treatment for NVP. Always check with your provider before taking any dietary supplement during pregnancy or while nursing.
- Pregnancy-Related Anemia**
Pregnant women with anemia who are not responding to iron supplementation may also have vitamin B6 deficiency. Vitamin B6 supplementation may help correct the anemia in some patients.
- Diabetic Neuropathy**
Peripheral neuropathy (numbness and tingling in feet and sometimes hands) in diabetics has been linked to vitamin B6 deficiency. Although more studies are needed in this area, correcting a low vitamin B6 level with supplementation may be helpful in some patients
- Colorectal Cancer**
Vitamin B6 may provide protection against colon cancer. A large study has demonstrated that the higher the concentration of B6 in blood (measured as phosphate ester derivative pyridoxal 5'-phosphate), the lower the colon cancer risk.

