

P-5-P Pyridoxal 5'-Phosphate 50 mg

Helps in Energy Metabolism

About P-5-P Pyridoxal 5'-Phosphate

- Pyridoxal 5'-phosphate (P-5-P) is the biologically active form of vitamin B6. Although there are several other forms of this vitamin, they must all first be converted into P-5-P, the active form.¹
- P-5-P is needed by over 180 enzymes, with a broad range of functions. This includes the metabolism of glucose, DNA synthesis, production of hemoglobin, and neurotransmitter synthesis.²
- There is some genetic variability in the ability to convert other forms of B6 to P-5-P. For example, variations in the genes ALPL and TYMS have both been linked to lower levels of P-5-P in the blood.^{3,4}
- Low dietary intake and deficiency of this vitamin are also common. At least 10% of each age/gender group in the United States was found to consume less than the recommended amount, with as many as 50% of women over 50 having insufficient dietary intake.⁵
- Approximately one-quarter of (non-supplementing) people in the United States had low blood P-5-P levels, the best indicator for vitamin B6 status.⁶
- Several other factors have been associated with low P-5-P levels, including the use of oral contraceptives, smoking, consuming alcohol, and increased age.^{5,6}
- Low levels of P-5-P have been associated with increased C-reactive protein levels, an indicator of inflammation, as well as a higher incidence of several inflammatory conditions.⁷⁻¹¹

How to Use P-5-P Pyridoxal 5'-Phosphate

- Take 1 capsule per day or as directed by a health care practitioner.

Cautions and Contraindications

- High-dose supplementation (at least 1 g per day) with pyridoxine has been associated with peripheral neuropathy in a small number of cases, but this effect is not expected or observed with P-5-P.^{5,12} Keep out of reach of children.

Drug Interactions

- Levodopa should not be taken with vitamin B6 when used in isolation, though when levodopa is combined with carbidopa, P-5-P may prevent a vitamin B6 deficiency.¹³ Vitamin B6 has been associated with reduced adverse effects from several prescription medications, including cycloserine, isoniazid, oral contraceptives, and some anticonvulsants.^{1,14}

PATIENT NAME: _____

PRACTITIONER NOTES:

Quick Tips for Optimal Health

- ☐ Dietary sources of vitamin B6 come from a variety of foods, including meat, poultry, fish, legumes, nuts, cereals, vegetables, and bananas.¹⁵
- ☐ Some groups have been found to be more likely to have suboptimal vitamin B6 status, including smokers, older adults, non-Hispanic Blacks, and current and former oral contraceptive users.⁶
- ☐ Supplementation with vitamin B6 has been associated with a reduction in symptoms attributed to oral contraceptives. For example, in a randomized and controlled trial, indices of low mood improved among participants taking B6 but worsened with a placebo (while taking oral contraceptives).¹⁶
- ☐ A higher dietary intake of vitamin B6 has been associated with lower rates of symptoms of anxiety and low mood among women, even in individuals not taking contraceptives.¹⁷
- ☐ Vitamin B6 has also been found to reduce the symptoms of nausea associated with pregnancy, an effect attributed to P-5-P specifically.^{18,19}
- ☐ Women may be at particularly high risk for low vitamin B6 status. In a large analysis of the U.S. population, 32% of women were found to have low P-5-P levels compared to only 16% of men.⁶
- ☐ Vitamin B6 has been found to improve cellular uptake of magnesium and may help correct a magnesium deficiency, with superior benefits when used together.²⁰⁻²³

PRACTITIONER CONTACT INFORMATION:

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