



Pantothenic Acid (250mg)

Stock #1640-2 (100 capsules)

Pantothenic acid (vitamin B5) is a strong antioxidant and an important nutrient required during stressful periods. Pantothenic acid stimulates adrenal function and raises production of cortisone and other adrenal hormones necessary for maintaining the health of the nervous system. In fact, there exists a noticeable correlation between tissue levels of pantothenic acid and the level of functioning of the adrenal cortex. Pantothenic acid is essential for proper metabolism and energy, for increasing endurance, and for reducing lactic acid buildup in the muscles and joints.

Pantothenic acid plays an important role in the Krebs' Cycle, a process that provides for amino acid synthesis, cellular respiration and the production of ATP (adenosine triphosphate) energy which fuels muscle contractions. A double-blind study in *Medicine and Science in Sports and Exercise* involved well-trained distance runners, half of whom were given daily supplements of pantothenic acid. The runners who received pantothenic acid improved their respiratory system efficiency, using 8% less oxygen. Also, they experienced almost 17% less lactic acid buildup than the placebo group.

Pantothenic acid is involved in the conversion of amino acids and lipids into glucose and also functions as a component in the formation of antibodies, in the maintenance of healthy central nervous system function, and in the synthesis of sterols and steroid hormones.

In 1980, the *General Practitioner Researcher* published a study showing the profound effects of pantothenic acid supplementation for decreasing the pain, stiffness and overall disability associated with rheumatoid arthritis. Research published in *Lancet* confirmed that individuals with rheumatoid arthritis had much lower levels of pantothenic acid in their blood than those without the disease. Furthermore, the lower the pantothenic acid level, the worse the symptoms. A double-blind study of people with rheumatoid arthritis revealed that those who received pantothenic acid supplementation had much less morning stiffness, pain and overall disability than those in the control group.

Pantothenic acid is an important component for maintaining healthy digestive function. This vitamin also speeds the healing process, reduces hair loss, reverses the graying of hair, renews old cells and extends the life span of cells, and decreases "age spots" on the skin. In fact, pantothenic acid helps prevent premature aging and wrinkles.

Other experiments suggest, but have not scientifically proven, that pantothenic acid helps detoxify alcohol in the bloodstream. Research has shown that pantothenic acid does reduce the toxicity effects of various antibiotics.

Pantothenic acid deficiency can cause adrenal exhaustion, gastrointestinal problems (bloating, gas, hypoacidity), hypoglycemia, skin disorders, and duodenal ulcers. Additionally, since the highest concentration of pantothenic acid is found in the brain, a deficiency can result in symptoms such as depression, fatigue, insomnia, and motor nerve dysfunction.

Dietary sources of pantothenic acid include brewer's yeast, egg yolks, organ meats and whole-grain cereals. Higher-than-normal doses of pantothenic acid may be necessary following antibiotic therapy, injury or severe illness. Although there are no known toxic effects from pantothenic acid, an excess may cause diarrhea, which can be eliminated by simply reducing the dosage in small amounts.