

INNATE

RESPONSE FORMULAS®

Calcium, Magnesium & Potassium™

V i s m e d i c a t r i x n a t u r a e

Product Rationale

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Calcium, Magnesium & Potassium Rationale

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Rationale

The fundamental reasons and logical basis used to formulate Calcium, Magnesium and Potassium.

The Benefits of Calcium, Magnesium and Potassium

Calcium, Magnesium & Potassium are essential nutrients that are sparse in many diets. It is impossible for a whole food foundational multi vitamin and mineral formula to supply a sufficient dose of these three vital nutrients, **Calcium Magnesium & Potassium** from **Innate Response Formulas®** is the perfect mineral formula to complement all Innate Response Formulas® Multiple Vitamin and Mineral formulas.

CALCIUM Ca: Calcium is vital to the structure of bones and teeth, contraction of muscles, enzyme activity, regulation of the heart beat, release of neurotransmitters and clotting of the blood. Studies indicate that a moderate potency of calcium in a FoodState® is beneficial to the bones and osteoporosis prevention. Some studies indicate that high calcium intake can contribute to calcium excretion and reduced bone building.

Calcium in a FoodState® and Osteoporosis Prevention

Calcium supplementation has been shown to help reduce bone loss in post-menopausal women and give significant protection against hip fractures [11, 12]. As with all nutrients, bioavailability is the key to calcium's effectiveness. The FoodState® form of Calcium in this superior **Calcium, Magnesium & Potassium** formula ensures optimum absorption and utilization by the body. All indications suggest that it would be highly beneficial for women to begin building healthy and strong bones long before the onset of menopause.

FoodState® Calcium and Hypertension Relief

Some research has pointed to calcium supplementation as a means of relieving high blood pressure [13, 14, 15]. For this purpose calcium appears to be particularly effective for those of dark complexion and in patients who are salt-sensitive.

FoodState® Calcium and PMS Improvement

Recent studies have indicated that calcium supplementation can help improve mood, concentration and behavior in premenstrual woman, and it has also been found to be beneficial in the reduction of water retention [16,17].

MAGNESIUM Mg: Magnesium occurs abundantly in nature. However, much is lost in the processing and refining of foods. As a result, low magnesium intake is very common. Magnesium primarily functions in enzyme activation, with participation in more than 300 enzymatic reactions in the body, including the enzymes responsible for the transcription, translation and replication of nucleic acids (RNA and DNA). It plays a critical role in energy production through pathways of carbohydrate, lipid and protein metabolism and in the synthesis of ATP in the mitochondria. Magnesium is important for bone growth, the metabolism of calcium, and the structure and function of the muscles. In the sodium and potassium pump, magnesium is necessary for the active transport of Potassium out of the cells.

FoodState® Magnesium and Healthy Heart Function

Magnesium deficiency has been identified as playing a major role in angina and has been shown to produce spasms of the coronary arteries [1]. One study concluded that men who die suddenly of heart attacks have significantly lower levels of heart magnesium as well as potassium, than matched controls [2]. Magnesium improves delivery of oxygen to the heart muscle by relaxing the coronary artery as well as improving the production of energy within the heart muscle. In addition, magnesium helps to inhibit platelets from aggregating thereby forming blood clots. It also has a slight dilation effect on blood vessels, therefore lowering blood pressure.

FoodState® Magnesium and Asthma Reduction

Studies that were completed prior to the availability of antihistamines indicated that treatment with Magnesium resulted in beneficial effects on those suffering from acute asthmatic attacks (3). Research has revealed a direct correlation between dietary intake of magnesium, lung function and asthma severity.

FoodState® Magnesium and Chronic Fatigue Syndrome Relief

Low red blood cell magnesium levels have been found in many patients with Chronic Fatigue Syndrome [4]. One double blind study found a significant improvement in energy levels in the Chronic Fatigue group treated with magnesium compared to those given a placebo.

FoodState® Magnesium and Fibromyalgia Support

There is a distinctive link between fibromyalgia and Chronic Fatigue Syndrome - approximately 70% of all patients diagnosed with fibromyalgia meet all of the diagnostic criteria for chronic fatigue syndrome. It would, therefore, be advisable to ensure adequate intake of magnesium if suffering from fibromyalgia.

FoodState® Magnesium and Diabetes Support

Magnesium plays a considerable role in the process of glucose metabolism and studies have shown that Magnesium deficiency is common in diabetics [5]. Supplementation is recommended for the prevention of some of the complications associated with diabetes such as retinopathy and heart disease.

FoodState® Magnesium and Glaucoma Improvement

In one study ten patients suffering with glaucoma were given 121.5 mg of magnesium twice a day. After four weeks, the blood supply and visual field had improved in all of the glaucoma patients [6].

FoodState® Magnesium and Migraine Relief

Several studies have linked magnesium deficiency with both migraine and tension headaches [7]. Supplementation can be useful as Magnesium helps to maintain the tone of blood vessels and prevent over-excitability of the nerve cells.

FoodState® Magnesium and Osteoporosis Prevention

There is some evidence to suggest that magnesium supplementation may be as important as Calcium supplementation to prevent and treat osteoporosis. One double-blind trial over a two year period showed a slight improvement in bone density in the group of women treated with a Magnesium supplement, compared to the placebo group who showed a slight decrease [8].

FoodState® Magnesium and PMS Relief

Magnesium is integrally involved in hormonal cell function and deficiency may be closely linked to the symptoms associated with PMS. Studies have credited Magnesium with having a beneficial effect on emotional instability, nervous sensitivity, aches and pains, breast tenderness and weight gain [9, 10].

Note: Magnesium has also been found to be beneficial in the treatment of alcoholism and in the treatment and prevention of kidney stones.

POTASSIUM (K+): Potassium is an essential element that functions in the maintenance of electrolyte and osmosis balance. It works to offset the excessive negative charges of organic constituents within the cell. As a component in the production of ATP, potassium also plays a role in the excitability of the nerves and muscles. Potassium is beneficial for the prevention and treatment of hypertension and cardiovascular disease as well as supporting the muscles, kidneys, adrenals and nerve functions.

FoodState® Potassium and Reduced Hypertension

Many studies have shown that supplementing with potassium can help lower blood pressure. This appears to be particularly relevant to the over-sixty five age group [18]. There is ample research to suggest that Potassium supplementation compare favorably to blood pressure reducing drugs and without the negative side effects [19].

FoodState® Potassium and Diabetes Support

A potassium-rich diet can be highly beneficial to those suffering from diabetes. Supplementation of FoodState® Potassium leads to improved insulin sensitivity, responsiveness and secretion [20]. It also reduces the risk of heart disease, atherosclerosis and cancer.

Calcium, Magnesium and Potassium Interdependence

Calcium, Magnesium and Potassium rely on one another to fully do their work within the body. The **Calcium, Magnesium and Potassium** formula is the perfect way to complete any supplement program.

Calcium, Magnesium & Potassium from **Innate Response Formulas®** is formulated with 100% FoodState® nutrients, vital food constituents including bioactive peptides, enzymes and supportive compounds. Nutrients in a FoodState® have the inherent benefits not found in ordinary vitamins and minerals.

FoodState® nutrients have moderate potencies like those found in food. These potencies facilitate utilization and reduce the potential for side effects. Benefits are enhanced with the addition of nutritionally superior fruit and vegetable extracts.

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