



**Potassium, Sodium, Calcium and Magnesium** are utilized as electrolytes that dissociate into ions when in solution and become capable of conducting electric charges that maintain proper cell function, integrity, and health. Calcium, magnesium and potassium are considered macro minerals. Calcium is the most abundant mineral in the human body. Calcium and magnesium play a vital role in bone formation, nerve function and muscle contraction (8).

**Chromium** is an essential trace element that helps maintain normal blood sugar levels. Athletes may be at risk for low chromium levels since strenuous exercise increases urinary excretion of chromium (9).

**Selenium** is a metallic substance that inhibits the oxidation of lipids (fats). It is a vital antioxidant, especially when combined with Vitamin E.

**Molybdenum** is an essential mineral that is required in extremely small amounts for nitrogen metabolism.

**Alpha-Lipoic Acid** is both water and fat-soluble and can scavenge free radicals both intra- and extra- cellularly. It is involved in carbohydrate metabolism and production of adenosine triphosphate (ATP) (10).

**Coenzyme Q-10** is found in virtually every cell, and is an important nutrient for optimal energy production. As a coenzyme it supports metabolic reactions, such as transforming simple food groups into ATP.

**DMG (Dimethylglycine)** allows the heme group of the red blood cell (RBC) to be more efficient in utilizing available oxygen. DMG has also been shown to reduce lactic acid build-up and improve cellular respiration.

**L-Glutamine** is the most abundant amino acid in the body. Glutamine is essential for maintaining intestinal function, immune response, and amino acid homeostasis during times of severe stress (11).

**L-Taurine** is a conditionally essential amino sulfonic acid that supports the regulation of heart contractions. Taurine helps facilitate the passage of sodium and potassium ions into and out of cells.

**L-Theanine** is the major amino acid found in green tea that is responsible for creating a focused and calm state by increasing alpha wave production (12). Theanine moderates the effects of caffeine on the central nervous system.

**Panax Ginseng** is used as an "adaptogen" for increasing resistance to environmental stress and as a general tonic for improving well-being. It's also used to stimulate immune function, improve physical and athletic stamina, improve cognitive function, concentration, memory, and work efficiency.

**Guarana** is the national beverage of Brazil. It contains a fat-soluble compound guaranine that is closely related to caffeine. Most caffeine is water-soluble and therefore is absorbed into the body more rapidly than the fat-soluble form of guaranine. Fat-soluble guaranine provides an energy boost without the speedy edge that is often the case with the water-soluble caffeine contained in coffee. For improving athletic performance, caffeine has been shown to decrease perceived levels of exertion, which enables the athlete to feel less tired and increase performance (13).

**Green Tea Extract** contains catechins, a class of powerful antioxidant compounds known as polyphenols. Green tea increases mental acuity without agitation, has an antidepressant effect, and provides stimulation and energy. Catechins derived from green tea are a laboratory standard for Cox-1 inhibition.

**Licorice Root** has antispasmodic, anti-inflammatory and soothing properties. Panax ginseng appears to compliment licorice by increasing serum cortisol concentrations (14).

**Rhodiola Rosea** contains the active constituents rosavins and the phenylpropanoid glycoside called salidroside. Rosavins are thought to be responsible for rhodiola's stimulant, anti-stress, and adaptogenic actions (15). Rhodiola has a calming effect on the central nervous system and supports healthy thyroid, thymus, and adrenal gland function. Rhodiola is effective for improving mood and alleviating depression. Russian research shows that it improves both physical and mental performance, reduces fatigue and prevents high altitude sickness.

**Patients: Consult with your healthcare professional for the proper dosage and use of this formula. For more information about this and other Condition Specific Formulas® please visit our website at:**

**mountainpeaknutritional.com**



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