

FIBRO MALATE



CLINICAL APPLICATIONS

- Supports Optimal Energy Production
- Boosts Key Enzymes for ATP Synthesis
- Balances Central Nervous System Signaling
- Provides Key B Vitamins for Healthy Peripheral Nerve Function

MUSCULOSKELETAL HEALTH

Fibro Malate is formulated to support individuals experiencing occasional fatigue and hypersensitivity in connective tissues, muscles and fascia, a phenomenon commonly thought to be caused by adaptations in the nervous system and cellular energy production. Studies have shown malic acid to maintain ATP production during hypoxic conditions, as well as anaerobic and aerobic glycolysis, and has been associated with a sense of greater energy.¹ Research shows magnesium depletion is common among individuals with stress and nervous system sensitivity, and that it prevents nerve receptor hyperexcitability. Key B vitamins, such as B₁, B₆, and B₁₂ maintain nerve growth and repair, nerve signaling, and pain receptor signaling. Two capsules of Fibro Malate include 50 mg vitamin B₁, 50 mg vitamin B₆, 100 mcg vitamin B₁₂, 120 mg highly absorbed magnesium, and 1,200 mg malic acid.

Overview

Research has shown that mitochondrial dysfunction and nervous system hypersensitivity can contribute to soft tissue discomfort, tenderness, muscle tightness, insufficient sleep, and mood changes. Adaptations of muscle cells appear to have dramatically reduced numbers of mitochondria, which affects overall adenosine triphosphate (ATP) production. Furthermore, adaptations in the nervous system include an increased sensitivity of pain receptors, more receptor signaling molecules, and less inhibitory molecules. Fibro Malate provides malic acid, magnesium and vitamin B₆, nutrients used in the Krebs cycle, ATP synthesis and muscle relaxation. Fibro Malate also provides vitamins B₁, B₆, B₁₂ and magnesium for optimizing energy production and nervous system signaling and function.

Malic Acid[†]

Malic acid is an organic substance found in plants and fruits (particularly apples) and is involved in the production of energy in the body. Malic acid plays a key role in mitochondrial ATP production. It is involved with the last step in the Krebs cycle, providing the last intermediate that can be combined with acetyl-coA and begin the cycle again. Malic acid supplementation of 1,200 mg has been shown to improve myalgia, support energy and provide a chelating and systemic alkalinization effect.^{1,2}

Magnesium[†]

Magnesium is a key cofactor for over 600 enzymatic reactions in the body. Magnesium is also directly involved in muscle relaxation, energy production, and it is well established that it actively blocks the glutamate receptor N-methyl-D-aspartate (NMDA). Activation of the NMDA receptor results in increased sensitivity of spinal cord and brain pathways that process sensory information. Current research suggests that the NMDA receptor displays increased activity in fibromyalgia and chronic pain patients.^{3,4}

Vitamin B₁[†]

Thiamin, also known as vitamin B₁, assists enzymes in glucose and amino acid metabolism, plays a key role in converting food to energy, provides cognitive support, and supports peripheral nerve health. Thiamin has been found to reduce hyperexcitability and lessen alterations of dorsal root ganglion, which relay important sensory nerve input from the body to the spinal cord and brain.⁵ Published clinical case studies support the use of high-dose thiamin to increase intracellular thiamin, thus increasing enzyme activity involved in energy pathways

[†] These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure, or prevent any disease.

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and fatigue and reducing widespread muscle tenderness due to nervous system stress and altered sensory signaling.^{6,7}

Vitamin B₆[†]

Vitamin B₆ is a cofactor in many cellular biochemical reactions, including the release of glucose from glycogen and other primary metabolic reactions. Vitamin B₆ is also involved in the electron transport system during ATP production, and supports the use of magnesium within the cell.⁸ Vitamin B₆ acts as an antioxidant, and is a key factor in methylation, a biochemical pathway integral for healthy detoxification and cardiovascular, neurological, muscle, and bone health. Vitamin B₆ also acts as a co-factor for enzymes involved in neurotransmitter synthesis that contribute to mood and stress balance, most notably epinephrine, norepinephrine, serotonin and γ-aminobutyric acid (GABA). Finally, vitamin B₆ supports healthy peripheral nerve function, specifically those that pass through the carpal tunnel.

Vitamin B₁₂[†]

Vitamin B₁₂ is the largest, most complex B vitamin and is unique in that it contains a metal ion, cobalt. Vitamin B₁₂ plays essential roles in folate metabolism, Krebs' cycle intermediate succinyl-CoA production, homocysteine metabolism, DNA methylation via methionine synthase activation, mood support, and cognitive support. Vitamin B₁₂ is critical for the function of the nervous system, preserving the myelin sheath, supporting neurotransmitter production, spinal cord function, and peripheral nerve function. The active form of vitamin B₁₂, known as methylcobalamin, also supports normal nerve growth and repair, along with the formation of blood.¹⁰ Methylcobalamin demonstrates neuronal protection, acting as a glutamate antagonist, and supports normal nerve conduction and normal nerve signaling during pain.¹¹ In vitro dorsal root ganglion nerve compression models demonstrated support of spinal dorsal horn mitochondria, and proper activity of nerve fibers.¹²

Directions

2 capsules two times per day or as recommended by your health care professional.

Does Not Contain

Gluten, corn, yeast, artificial colors and flavors.

Cautions

If you are pregnant or nursing, consult your physician before taking this product.

Supplement Facts^{V4}

Serving Size 2 Capsules
Servings Per Container 90

2 capsules contain	Amount Per Serving	% Daily Value
Thiamin (Vitamin B1) (from Thiamine Hydrochloride USP)	50 mg	4,167%
Vitamin B6 (as Pyridoxine Hydrochloride USP)	50 mg	2,941%
Vitamin B12 (as Methylcobalamin)	100 mcg	4,167%
Magnesium (as DiMagnesium Malate)	120 mg	29%
Malic Acid (as Malic Acid, DiMagnesium Malate)	1.2 g	*

* Daily Value not established

ID# 503180 180 Capsules

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