

MAGNOR-GT™

MAGNESIUM GLYCINATE &
MAGNESIUM THREONATE

TABLET

COMPOSITION:

Each film coated tablet contains:

Magnesium Glycinate (MS) 500 mg.

Magnesium Threonate (MS) 350 mg.

Product Specs.: Manufacturer Specs.

CLINICAL PARTICULARS:

Therapeutic Indications:

Magnor GT is indicated for the prevention and treatment of magnesium deficiency states. It is used as supportive therapy in neuromuscular disorders, muscle cramps, fatigue, stress related conditions, sleep disturbances, and cognitive support. It may also be used as adjunctive therapy in migraine and tension related headaches.

Posology and Method of Administration:

Dosage should be determined by the physician based on clinical requirement.

Typical dosing is one tablet once or twice daily.

Tablets are for oral administration and should be swallowed whole with water, preferably after meals.

CONTRAINDICATIONS:

Hypersensitivity to magnesium or any excipient.

Severe renal impairment.

Hypermagnesemia.

SPECIAL WARNINGS AND PRECAUTIONS FOR USE:

Use with caution in patients with impaired renal function due to risk of magnesium accumulation. Prolonged use should be monitored in elderly patients and in those receiving other magnesium containing products. Caution is advised in patients with neuromuscular disorders such as myasthenia gravis.

INTERACTION WITH OTHER MEDICINAL PRODUCTS:

Magnesium may reduce the absorption of tetracyclines, fluoroquinolone antibiotics, bisphosphonates, and iron preparations. A minimum interval of two hours is recommended between administration of Magnor GT and these medicines.

FERTILITY, PREGNANCY AND LACTATION:

Use during pregnancy and lactation only if clearly needed and under medical supervision.

Effects on Ability to Drive and Use Machines:

No or negligible influence.

UNDESIRABLE EFFECTS:

Generally well tolerated.

Common adverse reactions include mild gastrointestinal discomfort, nausea, and diarrhea.

Uncommon reactions include abdominal cramping and bloating.

Rare reactions include symptoms of hypermagnesemia such as weakness, hypotension, and drowsiness with excessive intake.

PHARMACOLOGICAL PROPERTIES:

Pharmacodynamic Properties:

Magnesium is a physiologically essential divalent cation that functions as a cofactor in more than three hundred enzymatic systems involved in carbohydrate, lipid, and protein metabolism, as well as adenosine triphosphate dependent energy production and nucleic acid synthesis. It plays a critical role in the regulation of transmembrane ion flux, particularly calcium and potassium, thereby maintaining cellular membrane stability and normal electrical activity in excitable tissues.

In the neuromuscular system, magnesium modulates acetylcholine release at the neuromuscular junction and contributes to the regulation of muscle contraction and relaxation by influencing calcium mediated actin myosin interactions. At the central nervous system level, magnesium acts as a physiological antagonist of N methyl D aspartate receptors, thereby regulating excitatory neurotransmission, synaptic plasticity, and neuronal excitability.

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Magnesium glycinate is a chelated form in which magnesium is bound to the amino acid glycine, facilitating absorption through amino acid transport pathways in the intestinal epithelium. This form demonstrates enhanced bioavailability and reduced osmotic activity in the gastrointestinal tract, resulting in improved tolerability and a lower incidence of diarrhea compared to inorganic magnesium salts.

Magnesium threonate is a magnesium salt of L threonate that has been shown to increase magnesium concentrations within the central nervous system more effectively than other magnesium forms. By elevating synaptic magnesium levels, it supports neuronal signaling, synaptic density, and cognitive related processes including learning and memory.

The combined formulation provides both systemic replenishment of magnesium for peripheral metabolic and neuromuscular functions and targeted support of central nervous system magnesium homeostasis, contributing to overall physiological balance and neurological performance

Pharmacokinetic Properties:

Following oral administration, magnesium is absorbed primarily in the small intestine through both passive paracellular diffusion and active transcellular transport mechanisms. Absorption efficiency is influenced by the chemical form of magnesium, gastrointestinal pH, and the body's existing magnesium status, with higher fractional absorption occurring in states of deficiency.

Once absorbed, magnesium is distributed widely throughout the body. Approximately fifty to sixty percent of total body magnesium is stored in bone, where it exists in dynamic equilibrium with extracellular magnesium and serves as a physiological reservoir. The remaining fraction is located in soft tissues, particularly skeletal muscle, liver, and the intracellular compartment, with less than one percent present in the extracellular fluid and serum.

Magnesium is not subject to hepatic metabolism. Systemic homeostasis is primarily regulated by the kidneys, which control serum magnesium concentrations through glomerular filtration and variable tubular reabsorption in the ascending limb of the loop of Henle and distal convoluted tubule. Renal excretion increases proportionally with rising plasma magnesium levels, while conservation is enhanced during periods of low intake or deficiency.

In patients with normal renal function, excess magnesium is efficiently eliminated in the urine. In individuals with impaired renal function, reduced clearance may result in accumulation and an increased risk of hypermagnesemia, necessitating dose adjustment and clinical monitoring.

INSTRUCTIONS:

– Store below 30°C.

– Protect from heat, sunlight & moisture.

– Keep out of the reach of children.

DOSAGE: As directed by registered medical practitioner.

PRESENTATION:

MAGNOR-GT Tablet : Pack of 3 x 10 tablets.

Manufactured by:

Phytocon International (Pvt.) Ltd.

339-A, Sundar Industrial Estate, Raiwind Road,

Lahore, Pakistan.

Manufactured for:

CCL Pharmaceuticals (Pvt.) Ltd.

62 Industrial Estate, Kot Lakhpat, Lahore, Pakistan.

FOR FURTHER INFORMATION PLEASE CONTACT:



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