

MagOpti^{cell}

Energy, Muscle and Nervous System Support

A quality combination of easily absorbable forms of Magnesium, activated B vitamins, including Pyridoxal 5-phosphate, Riboflavin sodium phosphate and Folic Acid, along with amino acids, trace minerals and mitochondrial nutrients.

Orthoplex Green MagOpti^{cell} offers a unique formula to help support nervous system, cardiovascular, muscular and mitochondrial function.



- ✓ Gluten Free
- ✓ Lactose Free
- ✓ Vegan
- ✓ Vegetarian

AUST L 267041

Pack Size: 150g oral powder and 300g oral powder

Recommended Dose: Mix 6.5g (approx. 1¼ level 5mL metric teaspoons) into water or food and consume immediately. Take once per day, or as recommended by your registered healthcare practitioner.

Storage: Store below 30°C in a cool, dry place, away from direct sunlight.



Full disclosure of excipients in every formulation

Indications

- Supports healthy nervous system function
- May help to support healthy bones and teeth
- May help to support healthy cardiovascular function
- May assist in energy production
- May support proper muscle and nerve function
- May help with bile acid conjugation and breakdown of cholesterol into bile acids

Excipients

Malic acid, *Stevia rebaudiana* leaf extract, tropical fruit flavour, fruit punch flavour.

Warnings

This medicine contains selenium, which is toxic in high doses. A daily dose of 150 micrograms for adults of selenium from dietary supplements should not be exceeded. If symptoms persist consult your healthcare practitioner. Seek professional advice before long term use. Vitamin and mineral supplements should not replace a balanced diet.

Each 6.5g (approx. 1¼ level 5mL metric teaspoons) Contains

Magnesium (as Magnesium amino acid chelate)	150mg	Selenium (as Selenomethionine)	25µg
Magnesium (as Magnesium citrate)	100mg	Taurine	500mg
Magnesium (as Magnesium orotate dihydrate)	30mg	Glutamine	500mg
Magnesium (as Magnesium phosphate pentahydrate)	30mg	Calcium folinate	540µg
Total elemental Magnesium	310mg	equiv. Folic acid	500µg
Potassium (as Potassium citrate)	80mg	Cyanocobalamin	400µg
Potassium (as Monobasic potassium phosphate)	50mg	Ascorbic acid	200mg
Total elemental Potassium	130mg	Levocarnitine	70mg
Calcium pantothenate	164mg	Creatine monohydrate	1g
Thiamine hydrochloride	30.1mg	Zinc (as Zinc amino acid chelate)	5.01mg
Pyridoxal 5-phosphate	10mg	Manganese (as Manganese amino acid chelate)	1mg
Nicotinamide	50.1mg	Chromium (as Chromium nicotinate)	50µg
Riboflavin sodium phosphate	10mg		

Technical Information

Supports Healthy Nervous System Function

MagOpticell provides several nutrients which support the healthy functioning of the nervous system. Thiamine has a non-cofactor role in the nervous system, controlling chloride channels, and as such, it plays a role in nerve function and transmission.¹ Pantothenic acid supports the adrenal glands in the making of cortisone and other adrenal hormones that counteract the stress response.² Pyridoxine is involved in the synthesis of several neurotransmitters, such as serotonin, GABA and dopamine,³ while Vitamin B12 is required for the synthesis of myelin, the insulation around nerves.⁴

Contains Nutrients to Support Energy Production

The metabolism of carbohydrates and fats to produce energy requires numerous magnesium-dependent chemical reactions. Magnesium is required by the adenosine triphosphate (ATP)-synthesizing protein in mitochondria. ATP, the molecule that provides energy for almost all metabolic processes, exists primarily as a complex with magnesium (MgATP).⁵

The B group vitamins are cofactors in the production of energy in the Citric Acid Cycle (Figure 1). Thiamine serves as a cofactor for several enzymes involved in carbohydrate catabolism, including pyruvate dehydrogenase, transketolase, alpha-ketoglutarate, as well as amino acid catabolism.⁶

Two fundamental co-enzymes of the Citric Acid Cycle – Flavin adenine dinucleotide (FAD) and Flavin mononucleotide (FMN) – are both important for the body's production of ATP and rely upon vitamin B2 as a precursor.⁷ In the body the activated form of B2 bypasses a biochemical step in the process of energy production.

Niacin is involved in numerous biological functions and is a precursor for the coenzymes nicotinamide adenine dinucleotide (NAD+) and nicotinamide adenine dinucleotide hydrogen (NADH), which are involved in a number of metabolic functions.⁸

Vitamin B5 is required for coenzyme A synthesis – an important component of energy storage and release. In

conjunction with Thiamine, Riboflavin and Niacin, vitamin B5 is involved in the oxidative decarboxylation of pyruvate and alpha-ketoglutarate in the Citric Acid Cycle.⁷

Contains Nutrients to Support Methylation

Folinic acid, Cyanocobalamin (B12), Riboflavin sodium phosphate (B2) and Pyridoxal 5-phosphate (B6) are all involved in healthy methylation reactions.

In the body Folinic Acid is a more active form of folate, and as such, bypasses several steps in the conversion of folic acid to methylfolate or MTHF – the molecule the body uses in methylation reactions, in particular the remethylation of homocysteine to methionine.⁹ However, the administration of Folinic acid alone is not sufficient to reduce homocysteine. An adequate supply of vitamin B12 is also essential for transmethylation to take place.

Riboflavin sodium phosphate, is a precursor to the coenzyme FAD which functions as a cofactor for the enzyme methylenetetrahydrofolate reductase (MTHFR).¹⁰

Vitamin B6 also plays an important role in the healthy remethylation of homocysteine to methionine. The B6-dependant enzyme cystathionine β-synthase is a component of the first enzyme in the transsulfuration pathway¹¹, making pyridoxine an important nutrient for healthy methylation reactions.

Supports Cardiovascular Health

MagOpticell contains numerous ingredients that support the health of the cardiovascular system, including Magnesium, Vitamin B6, Vitamin B12, Selenium, Vitamin C and chromium.

Magnesium regulates vascular smooth muscle contraction and relaxation by modulating intracellular Calcium, Sodium, Potassium and pH. It also increases nitric oxide, stimulates vasodilator prostacyclins, alters vascular response to vasoactive substances, supports endothelial function and acts as a natural calcium channel antagonist.¹²⁻¹⁴ Conversely, reduced Magnesium levels adversely affect endothelial function, vascular tone and reactivity.¹³

Supports Healthy Bones

Approximately 60% of Magnesium in the body is associated with bone.¹⁵ It is an integral part of the structure of bone, making part of the apatite crystal lattice.¹⁵

References upon request.

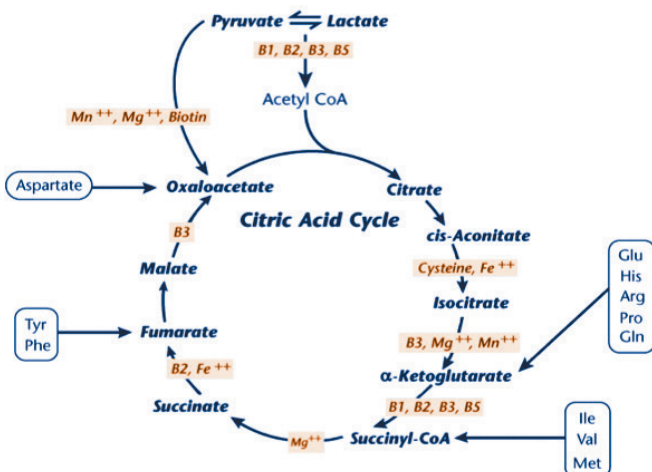


Figure 1: Citric Acid Cycle