ZINC PLUS

Zinc and Synergistic Nutrients for Skin and Immune System function

Highly bioavailable zinc chelate containing 30 mg of elemental zinc plus supporting nutrients manganese, magnesium, vitamin A and vitamin B6. Commonly co-prescribed with zinc and these supporting nutrients are the herbs *Echinacea angustifolia* (echinacea) for the immune system, Cumerone® and *Olea Europaea* leaf.

Product Features and Highlights

Zinc chelate is a well absorbed form of zinc. It is supplied in combination with highly synergistic nutrients.

- Designed to replace zinc and enhance effects of zinc in zinc deficient patients.
- Useful in allergies particularly eczema
- Useful in skin complaints e.g. acne
- Beneficial to the immune system

Olea Europaea (Olive) leaf has bioactive compounds that have antioxidant, antihypertensive, antiatherogenics, anti-inflammatory, hypoglycemic and hypocholesterolemic properties. Olive leaf has the antioxidant capacity significantly higher than green tea and vitamin C.

Zinc Plus contains other micronutrients and herbs to increase uptake and utilisation of zinc and complement its action.

Zinc Deficiency

Zinc deficiency can manifest itself in many ways and may even occur without overt clinical signs. Probably the earliest symptoms of a zinc deficiency pertain to the nervous system with non-specific psychological disturbances including behavioural changes and mood disorders. The immune system then malfunctions with demonstrable changes in humoral and cell-mediated immunity.

Nutrition Care Pharmaceuticals Pty. Ltd.

Active Ingredients

Each tablet contains:	
Zinc Amino Acid Chelate	300 mg
Equiv. Zinc	30 mg
Magnesium Amino Acid Chelate	80 mg
Equiv. Magnesium	16mg
Manganese Amino Acid Chelate	20 mg
Equiv. Manganese	2 mg
Echinacea angustifolia (echinacea) rhizome & root dry	250 mg
Pyridoxine Hydrochloride	50.0 mg
Retinyl Palmitate	750.0 mcg
Equiv. Vitamin A	2500.0 IU
Olea europaea (Olive) leaf	750.0 mg
Cumerone	15.52mg

WARNING: When taken in excess of 8000IU vitamin A can cause birth defects. If you are pregnant, do not take vitamin A supplements without consulting your doctor or pharmacist.

Indications

To be taken as a zinc supplement where the dietary intake is inadequate.

Acne
Acrodermatitis
Alcoholism
Apathy
Anxiety, nervous states
Arthraglia
Arthritis enteropathica
BPH
Burns
Diuretic use
Detoxification mechanisms (SOD)
Growth and Repair
Hypogeusia - loss of taste sensation
Hypercholesterolaemia
Immune dysfunction
Improved fertility
Loss of lean body mass
Malabsorption
Oral contraceptive pill
Phobias
Poor appetite
Rheumatoid arthritis

The active ingredients in Zinc Plus, when appropriately prescribed, may assist patients suffering from the following conditions. This statement does not imply or make a claim for a cure for these disorders. The use of Zinc Plus should be based on published and relevant scientific and clinical data for each condition.

Zinc

The multitude of indications for zinc supplementation reveals its widespread activity. Zinc serves as a cofactor for more than 80 enzyme systems and hormones and it is

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intimately related to protein, collagen, haem and nucleic acid synthesis.

Zinc also has an important role in detoxification of superoxides, alcohols, aldehydes and possibly xenobiotic chemicals. Zinc has been shown to be as effective as tetracycline over 12 weeks in the treatment of acne, and with much fewer side effects. It stimulates proliferation of T-lymphocytes and reduces immunologically induced histamine and leukotriene release from basophils and mast-cells. Zinc modulates serotonin release from platelets, phagocytosis and immune haemolysis.

The action of Zinc is potentiated by vitamin B6 that acts in concert with the zinc in its many enzyme reactions.

Pyridoxine HCI

Vitamin B6 is involved as a cofactor with zinc in many enzymic reactions concerning protein production, carbohydrate metabolism, hormone synthesis, porphyrin synthesis, and the normal functioning of the central nervous system. It is of use in many of the conditions in which zinc is indicated and is essentially useful in the premenstrual syndrome, carpal tunnel syndrome, asthma, glucose regulation, allergies, arthritis, eczema and migraine.

Doses in excess of 200mg per day may cause a rare sensory neuropathy that is reversible by ceasing the B6, or reducing it and adding B-Complex vitamins.

Manganese chelate

An important trace element for bone growth, neuromuscular transmission and reproduction. Zinc supplements should contain manganese because zinc may reduce manganese uptake. Manganese may be useful in the treatment of tardive dyskinesia, epilepsy, infertility, glucose regulation and disturbances of growth of bones, metabolism and osteoporosis. Toxicity may result in a tremors and rigidity and "manganese madness". At low doses in this formula, these problems do not occur.

Magnesium

A bulk mineral that acts synergistically with zinc and pyridoxine in many enzymatic reactions especially protein and carbohydrate metabolism, in the cardiovascular system, nervous system and kidney. It is indicated in hypomagnesaemia (muscular weakness), prolonged vomiting and diarrhoea, prolonged diuretic therapy, excessive alcohol ingestion, some cardiac arrhythmias and disturbances of glucose metabolism.

***Echinacea angustifolia* (echinacea)**

A herb traditionally used for infective conditions of viral, bacterial and fungal origin. It is one of the most popular herbal remedies in Europe and its active constituents include echinacin, a glycoside that has been shown to stimulate T-lymphocyte activity. Echinacea is also useful in chronic infections that are slow to resolve.

Vitamin A

Important for immune function, skin maintenance, prevention of night blindness and respiratory and gastro-intestinal infections.

***Olea Europaea* (Olive) leaf**

Olea Europaea (Olive) leaf has bioactive compounds that have antioxidant, antihypertensive, antiatherogenics, anti-inflammatory, hypoglycemic and hypocholesterolemic properties. Olive leaf has the antioxidant capacity significantly higher than green tea and vitamin C.

Oleuropein (which is the active ingredient in Olive leaf) has been shown to be effective against a number of disease-causing microbes, including some of viruses that cause influenza and similar respiratory infections

Cumerone®

Fast acting Cumerone® is a premium extract of curcumin from *Curcuma longa* (Turmeric) to effectively assist in the relief of symptoms of arthritis and other inflammatory conditions.

The superior clinical efficacy of Cumerone® is due to a unique extraction process, which ensures a high yield of pure curcumin. This

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active principle is then blended as to significantly improve bioavailability, increasing absorption and ensuring a rapid onset of action.

Cumerone® provides well absorbed and bioavailable curcuminoids for clinically significant effects.

Contraindications

Biliary obstruction was reported as a contraindication in the European Scientific Cooperative on Phytotherapy (E.S.C.O.P.) monograph on *Curcuma longa.* The German Commission E monograph reports that curcumin should only be used after seeking professional medical advice if gallstones are present.

Interactions

In theory, high-dose curcumin may increase the risk of bleeding when used concomitantly with anticoagulant drugs, so caution is advised. [3]

Pregnancy and lactation

Contraindicated: Safety studies have not been conducted on Cumerone® in pregnancy and lactation.

The active ingredients in the Nutrition Care formulations, when professionally prescribed, may assist patients suffering from specific conditions. This statement does not imply or make a claim for a cure for disorders treated with any Nutrition Care products and their use should be based on published and relevant scientific and clinical data.

Dosage

One tablet to be taken daily or as prescribed by a Health Care Professional. Owing to the absorption properties of the chelates in this formula, it should be taken between meals.

Drug Nutrient Interactions

More likely to have a Zinc deficiancy - Thiazide and other diuretics, oral contraceptives, corticosteroids, alcohol, D-penicillamine, cytotoxic drugs.

Adverse Effects

A hypersensitivity to any ingredient. Hypervitaminosis A may occur after prolonged treatment with excessive amount. Excessive zinc intake may cause copper and manganese deficiency. Clinically, zinc excess presents with nausea, diarrhoea and vomiting.

Clinical Assessment

According to the British Medical Journal (Editorial: Another Look at Zinc - B.M.J. 282: 1098-99, 1981) the most reliable way of diagnosing a zinc deficiency is by a therapeutic trial based on clinical indications.

References

1.Pivot/Keats 1978. C.: *Zinc and other micronutrients* .
2. Brighthope I. 1988. *The AIDS Fighters* - Keats
3.Goodhart and Shils: 1980. Modern Nutrition in Health and Disease - *Lea and Febringer.*
4.Gross R.L. 1980. The Role of Nutrition in immunologic Function - *Physiology Reviews* No. 60.
5. Michaelsson G. 1977. *British J of Dermatology* 97.
6.Barbarino F. 1988. *Biological Trace Element Res.* 16.
7.Scholmerich J. 1987. *American J. Clinical Nutrition* 45.
8.Seal C. J.1977. *Am. Nutr.* Metab. 32.
9.Pfeiffer C.1975. *Mental and Elemental Nutrients* - Keats 215.
10.Ziesdorf L. 1978. *.J. Am. Paediatric Assoc.* 68.

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