# NU IMMUNE ECHINACEA



- Sugar Free
- Antioxidant
- With Zinc

NU Immune Echinacea is an essential supplement with natural Echinacea extract, Zinc and Vitamin C, as boost for the immune systems defence. Zinc additionally helps to maintain healthy skin, hair and nails and contributes to the maintenance of

nails and contributes to the maintenance of normal vision.

### **EACH EFFERVESCENT TABLET CONTAINS**

Ascorbic acid (Vitamin C)	300 mg	
Echinacea purpurea (L.) Moench	80 mg	
(Echinacea)		
[leaf, 4:1 extract, providing 320 mg		
Dried herb equivalent]		
Zinc amino acid chelate	40 mg	
Providing elemental zinc	8 mg	

## WHAT THE SCIENTISTS SAY

## **NU Immune Echinacea – Natural Defence**

Among their many health benefits, zinc and vitamin C are crucial for the maintenance and improvement of the immune system and have to be replenished through dietary means [1, 2]. Further to this, zinc is found highly concentrated in ocular tissues, particularly in the retina and pigment epithelium where it acts as a cofactor for important retinal enzymes [3]. It was therefore hypothesized that poor zinc intake in elderly persons might worsen age-related

macular degeneration. Subsequently, randomized clinical trials were conducted which suggest that supplementation could provide protection against vision loss [4, 5].

Interestingly, a meta-analysis of 14 trials found that zinc supplementation may modestly reduce blood glucose concentration, suggesting it could contribute to the management of hyperglycemia in individuals with chronic metabolic disease [6]. Evidence further suggests that supplementation improves mood as an adjunct therapy for depression [7] and in a multivariate analysis involving 79 participants, zinc was found to be effective in hepatic encephalopathy, consequently improving patient's health-related quality of life [8].

An important constituent of this particular NU Immune effervescent, *Echinacea purpurea* (a plant commonly known as purple coneflower, red sunflower or rudbeckia) has a long history of medicinal use around the world, particularly in well-developed countries. In recent times, a number of its pharmacological actions have been scientifically documented, with preparations being used for immunomodulatory, anti-inflammatory, antioxidant, anti-viral effects and anti-cancer effects. These effects stem from several groups of bioactive constituents, including alkamides and lipophilic alkamides, water-soluble phenolic compounds (mainly caffeic acid derivatives), polysaccharides and benzalkonium chloride (see Fig. 3) [9, 10].

**Figure 3:** Some bioactive compounds found in Echinacea purpurea extracts.

Best known as a prevention and treatment for upper respiratory tract infections in both modern and traditional medicine, *E. purpurea* extracts have been shown to stimulate various immune cells such as macrophages, other monocytes and natural killer cells *in vitro*. Although the exact mechanism of action is unknown in the body, the botanical extracts appear to activate macrophages which affect cytokine secretions, reducing inflammation in pathways from rhinosinusitis (the common cold) and pharyngitis (sore throat) [10]. In a meta-review of 6 clinical studies with 2458 participants, evidence indicates that *E. purpurea* potently lowers the risk of recurrent respiratory infections. Furthermore, complications including pneumonia, otitis media/externa, and tonsillitis/pharyngitis were found to be less frequent [11]. In combination with vitamin C and zinc, it is without a doubt that NU Immune Echinacea is a powerful immune-boosting effervescent, enhancing the body's natural defence.

#### Reference List

- 1. Maggini, S., Beveridge, S. and Suter, M. A combination of high-dose vitamin C plus zinc for the common cold. *J Int Med Res.*, 2012, **40**(1), 28.
- 2. Wintergerst, E. S., Maggini, S. and Hornig, D. H. Immune-enhancing role of vitamin C and zinc and effect on clinical conditions. *Ann Nutr Metab.*, 2006, **50**(2), 85.
- 3. Bartlett, H. and Eperjesi, F. Age-related macular degeneration and nutritional supplementation: a review of randomised controlled trials. *Ophthalmic Physiol Opt.*, 2003; **23**(5), 383.
- 4. Newsome, D.A., Swartz, M., Leone, N.C., Elston, R.C. and Miller. E. Oral zinc in macular degeneration. *Arch Ophthalmol.*, 1988, **106**(2), 192.
- 5. Age-Related Eye Disease Study Research Group. A Randomized, Placebo-controlled, Clinical Trial of High-dose Supplementation With Vitamins C and E, Beta Carotene, and Zinc for Age-related Macular Degeneration and Vision Loss: AREDS Report No. 8. *Arch Ophthalmol.*, 2001, **119**(10), 1417.
- Capdor, J., Foster, M., Petocz, P. and Samman, S. Zinc and glycemic control: A meta-analysis of randomised placebo controlled supplementation trials in humans. *J Trace Elem Med Bio.*, 2013, 27(2), 137.
- 7. Lai, J., Moxey, A., Nowak, G., Vashum, K., Bailey, K. and McEvoy, M. The efficacy of zinc supplementation in depression: Systematic review of randomised controlled trials. *J Affect Disorders*, 2012, **136**(1–2), e31.
- 8. Takuma, Y., Nouso, K., Makino, Y., Hayashi, M., Takahashi, H. Clinical trial: oral zinc in hepatic encephalopathy. *Aliment Pharmacol Ther.*, 2010, **32**(9), 1080.
- 9. Kumar, K. M. and Sudha Ramaiah. Pharmacological importance of Echinacea purpurea. *Int J Pharma Bio Sci.*, 2011, **2**, 304.
- 10. Barrett, B. Medicinal properties of Echinacea: a critical review. *Phytomed.*, 2003, **10**, 66.
- 11. Schapowal, A., Klein, P. and Johnston, S.L. Echinacea Reduces the Risk of Recurrent Respiratory Tract Infections and Complications: A Meta-Analysis of Randomized Controlled Trials. *Adv Ther.*, 2015, **32**, 187.