# OptiZinc<sup>™</sup> Zinc Monomethionine

### DESCRIPTION

OptiZinc<sup>™</sup> capsules, provided by Douglas Laboratories<sup>®</sup>, supply zinc monomethionine, an organic compound which provides zinc bound to the amino acid methionine in order to increase the bioavailability of zinc.

## **FUNCTIONS**

Zinc is an essential trace element involved in most major metabolic pathways. General signs of human zinc deficiency indicate that zinc has important functions in maintaining immune function, reproduction, healthy skin, and growth.<sup>†</sup> Numerous studies support the fundamental role of zinc in normal immune response in humans.<sup>†</sup> Immune cells must be able to rapidly divide in order to respond to daily challenges. Like all rapidly dividing cells, immune cells depend on adequate amounts of dietary zinc. <sup>†</sup>

As a cofactor of the antioxidant enzyme superoxide dismutase (SOD), zinc can be considered an antioxidant nutrient. Zinc supplementation has been shown to increase the antioxidant activity of SOD, and provide additional support as a free radical scavenger.<sup>†</sup> Body cells and tissues are vulnerable to free radical damage and reactive oxygen species (e.g., peroxides) which are produced during normal oxygen metabolism, by other chemical reactions, and by unwanted agents in the environment. Free radicals, once formed, are capable of disrupting metabolic activity and cell structure. When this occurs, additional free radicals are produced which, in turn, can alter cells and tissues. The uncontrolled production of free radicals is thought to be a major contributing factor to oxidative damage. Zinc deficiency is associated with increased production of free radicals and reactive oxygen species.

More than any other tissue in the body, the lens and retina of the eye are continually exposed to free radicals. As a part of the normal aging process, these factors can contribute to changes in the membrane structure and function of eye cells. Studies indicate zinc as an important nutrient needed to maintain healthy vision as we age. †

## **INDICATIONS**

OptiZinc<sup>™</sup> may be a useful nutritional adjunct for individuals who wish to increase their intake of zinc.

## FORMULA (#200061)

\*OptiZinc<sup>™</sup> is a trademark of InterHealth Company.

## SUGGESTED USE

One capsule daily as a dietary supplement, or as directed by a healthcare professional.

If pregnant or lactating, consult your physician before taking this product.

#### SIDE EFFECTS

Orally, zinc may cause nausea, vomiting, and a metallic taste in the mouth. There is concern that high daily doses above the tolerable upper intake level (UL) of 40 mg per day might increase the risk of copper deficiency.

#### STORAGE

Store in a cool, dry place, away from direct light. Keep out of reach of children.

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## OptiZinc<sup>™</sup> Zinc Monomethionine REFERENCES

Kirkil G, et al. Respiratory Medicine [serial online]. June 2008;102(6):840-844.

Ribeiro S, Braga C, Cunha S, et al. Biological Trace Element Research [serial online]. June 12, 2015.

Mazani M, Argani H, Nezami N, et al. Journal Of Renal Nutrition: The Official Journal Of The Council On Renal Nutrition Of The National Kidney Foundation [serial online]. May 2013;23(3):180-184.Mocchegiani E, Romeo J, Marcos A, et al. Age (Dordrecht, Netherlands) [serial online]. June 2013;35(3):839-860.

Consolo L, et al. European Journal Of Clinical Nutrition [serial online]. October 2013;67(10):1056-1059.

Newsome DA. Curr Eye Res. 2008 Jul;33(7):591-8. doi: 10.1080/02713680802178437.

de Moura J, de Moura E, Brandão-Neto J, et al. Biological Trace Element Research [serial online]. October 2013;155(1):23-28.

Raqib R, Roy S, Andersson J, et al. The American Journal Of Clinical Nutrition [serial online]. March 2004;79(3):444-450.

Radhakrishna K, et al. Plos One [serial online]. May 30, 2013;8(5):e61486.

Bartosińska J, Chodorowska G, Bartosiński J, et al. Advances In Medical Sciences [serial online]. 2011;56(2):369-372.

Kohn S, Kohn D, Schier D. The Journal Of Dermatology [serial online]. April 2000;27(4):258-263.

Abdallah SM, Samman S. Eur J Clin Nutr 1993;47:327-332.

Brignola C, Belloli C, De Simone G, et al. Aliment Pharmacol Ther 1993;7:275-280.

Chirase NK, Hutcheson DP, Thompson GB. J Anim Sci 1991;69:4137-4145.

Donovan UM, Gibson RS. J Am Coll Nutr 1995;14:463-472.

Flora SJ, Kumar D, Das Gupta S. Pharmacol Toxicol 1991;68:3-7.

Food and Nutrition Board, National Research Council. Recommended Dietary Allowances. 10th ed. Washington, D.C. National Academy Press, 1989.

Gordeuk VR, Brittenham GM, Hughes M, Keating LJ, Opplt JJ. Am J Clin Nutr 1987;46:1029-1034.

Goyer RA. Am J Clin Nutr 1995;61 Suppl.646S-650S.

Gupta RK, et al. Acta Cardiol 1996;47:297-304.

Hong Bin Q, Garfinkel D. Med Hypotheses 1994;42:380-384.

Keen CL, Gershwin ME. Annu Rev Nutr 1990;10:415-431.

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King JC, Keen CL. Zinc. In: Shils ME, Olson JA, Shike M, eds. Modern Nutrition in Health and Disease. 8th ed. Philadelphia: Lea & Febiger, 1994:214-230.

Maes M, D'Haese PC, Scharpé S, D'Hondt P, Cosyns P, De Broe ME. J Affect Disord 1994;31:135-140.

Mares-Perlman JA, et al. J Am Coll Nutr 1995;14:349-357.

Roebothan BV, Chandra RK. Nutr Res 1994;14:35-39.

Sherman AR. J Nutr 1992;122:604-609.

Singh A, Failla ML, Deuster PA. J Appl Physiol 1994;76:2298-2303.

Small SP, Best DG, Hustins KA. Can J Nurs Res 1994;26:71-81.

Wedekind KJ, Hortin AE, Baker DH. J Anim Sci 1992;70:178-187.

#### For more information on OptiZinc<sup>™</sup> visit douglaslabs.com

† 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.

Manufactured by Douglas Laboratories 600 Boyce Road Pittsburgh, PA 15205 800-245-4440 douglaslabs.com



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